

# SUONO



## 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 for almost 40 years.

The SUONO series features twin bass drive units for improved power handling, vital in Home Theatre applications and new fabric dome tweeters. These are housed in substantially built MDF cabinets only 7cm deep. While intended mainly for wall mounting, the models 200S, 300S and 500S may also be used as floor standing or loudspeakers on our proprietary matching plinths.

Suono loudspeakers offer the same space saving, lifestyle convenience of in-wall loudspeakers as well as the added feature of being able to be used with matching plinth and place beside a TV panel on a credenza. Plinths are optional.

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 discuss 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.

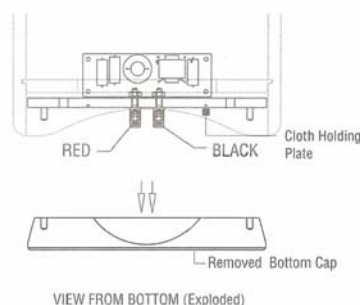
## Unpacking

In the carton you will find: 1 or 2 SUONO loudspeakers and 1 or 2 wall brackets, located under the inside flaps at each end of the carton. The 200S, 300S, 500S are packed as a single unit. We suggest you keep all the packaging for safe transport of your loudspeakers in future. Always re-pack them facing front to front 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, remarkable results can also 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 the matching any Angstrom's active low frequency transducer (subwoofer).

## Running in

The SUONO loudspeakers sound their best after a running in period. Bass increases during running in, and both total 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

SUONO loudspeakers have been designed for use on or near walls to blend into normal 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. Use the following as a guide:

### SUONO 200S, 300S, 500S

Intended mainly 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.

### SUONO 300S, 500S

The 300S, 500S may be used with equal success hung on the wall or as a floor standing loudspeaker with the Proprietary Spiked Plinth. On the floor, they should be close to a wall, preferably with the foot almost touching the skirting board. But if in a corner or an alcove, try a little more space behind the loudspeaker.

### SUONO 300S, 500S

Suitable for wall mounting, although they may sound bass heavy if placed in corners. As a floor standing loudspeaker with the Proprietary Spiked Plinth, they should be placed up to 1m (3ft.) away from the walls, particularly if your room has solid walls and floor.

## Placement hints

- Set the loudspeakers 2-3 meters (7-10ft.) apart. Listen equidistant from them if possible
- If wall mounted, try to keep the loudspeakers edge at least 30cm (1 ft.) from corners (60cm for the 400)
- Don't obstruct the loudspeakers with furniture/curtains
- Leave at least 10cm (4 inches) clear from the reflex ports (covered by socks) on the side of the loudspeakers to breathe.
- If floor standing, angling the loudspeakers 'in' can improve image depth and for a bigger musical sound stage.

## Audio Visual Systems

SUONO loudspeakers are ideal for multi-channel home theatre systems, or to enhance stereo televisions. Please refer to your A/V amplifier manual for wiring instructions.

### Main Loudspeakers

Models 200S, 300S, 500S are the best choice, spaced about 2-3m (7-10ft.) apart. They should be wall mounted or floor standing, and the TV midway between them. The placement hints given above apply equally for A/V systems.

### Rear Channel

The 200S, 300S, 500S are ideal for the wall mounted effect channels. Place the loudspeakers fairly high up on the side walls behind the viewing position, or well spaced on the rear wall.

### Centre Channel

Use the 200S, 300S or 500S 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 200S, 300S and 500S, one to either side of 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.

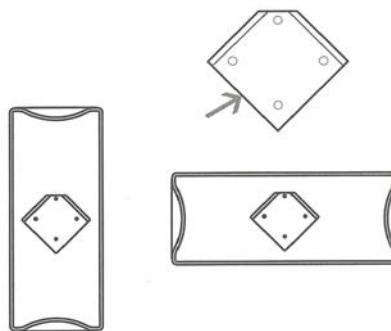
### Magnetic Shielding

Loudspeakers magnets can discolour a conventional TV image (rainbow effects) if placed too close due to magnetic flux leakage. Although unshielded, few problems will normally occur with SUONO loudspeakers as they are usually wall mounted behind and to the side of the TV, out of the sensitive area. Note: If discolouration occurs, immediately move the loudspeakers further away from the TV. The Rainbow effects can take some time to self-correct. Some TVs are "self de-gaussing". This feature will correct rainbow effects. Check your TV manual for the procedure.

## Wall Mounting

The 200S, 300S and 500S may be placed vertically or horizontally on the wall.

All SUONO 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 200S, 300S or 500S horizontally change an orientation of the speaker bracket by 90 degree. Here is how: Lay the loudspeaker face down on a flat surface. Remove the black bolts. Turn the plate 90 degree and put the bolts back. Tighten securely. Now the speaker can be mounted horizontally as a centre channel.

### **WARNING**

Like all loudspeakers, SUONO loudspeakers can be damaged if played too loudly. Common sense needs to be used with powerful amplifiers or in large rooms. When the loudspeakers are being overdriven, they will become harsh, and will sound unpleasant or distorted. They may also produce a chuffing or flapping noise on material with high level low frequency signals (turbulence in the woofer magnet vent). Sustained playing at these levels (for example during a party) may cause thermal or mechanical damage. The results of such abuse are easily identifiable and are not covered by the warranty.

THERE IS NO SOUND BARRIER™



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