



COMODO SERIES INSTRUCTIONS

*Congratulations on your purchase of an Angstrom COMODO Loudspeaker System
COMODO, An Italian musical term meaning.....Easy Listening*

A thorough understanding in the science of modern acoustics and electronics, along with our commitment to using the best components, ensure you a high performance, superbly designed and finished product representing true and lasting value.

The new COMODO Series loudspeakers are „stand alone” in design and they may be added to or matched with other COMODO loudspeakers in the future. Adaptability and flexibility allows you to design a system for your own unique needs. Nothing is absolute and therefore there is no perfect solution for obtaining the best sound. We must always consider individual preferences and environments when we make decisions based on sound. We have included ideas that we believe will give the most satisfying result from a relatively easy set up in a rectilinear room to the very complex set up in a more challenging environment.

CONNECTING YOUR ANGSTROM COMODO LOUDSPEAKER SYSTEM

Turn off your amplifier.

Turning off your amplifier/receiver when connecting your loudspeaker prevents short circuits, which can damage your system. You should never change any connection without turning your system off.

MAKING THE PROPER CONNECTION

Loudspeakers are excited by fairly low voltages, but the current they receive is quite high. Therefore, the cables that connect your Angstrom COMODO Loudspeakers to the receiver or amplifier should be dedicated 16 AWG loudspeaker cables.

Left and right loudspeakers operate together to reproduce audio signals that should appear in a stereo image with depth, breadth and height. Both loudspeakers must play in unison. They should also reproduce a positive electrical pulse as high pressure and a negative pulse as low pressure. In other words, the loudspeakers must be correctly “phased”, and to this end, the terminals are colour coded. “Positive” is marked in red and “negative” is marked in black. The Terminals on your receiver/amplifier are colour coded in the same way.

All quality loudspeaker cables are marked to ensure proper “phasing” during installation. You should connect the lead that is marked to “positive” on the amplifier and to the “positive” (red terminal) on your loudspeaker. The other lead should be connected to the “negative” (black). Banana plugs fit easily into the holes on the loudspeaker terminals and provide good electrical connection. They are highly recommended.

POSITIONING IS IMPORTANT

Loudspeaker placement has the most profound effect on acoustics in the home. Active nodes in the listening room are a major concern when placing loudspeakers in a rectilinear environment. A node will result between any parallel surface (ie: two walls) and occurs at a frequency where the walls of the room and the loudspeaker interact. This is not a desirable effect. Active nodes happen at several frequencies and are proportional to the distance from the walls to the loudspeakers. Active nodes are far less frequent and far less of a problem in irregular shaped rooms or rooms with sloped or vaulted ceilings.

To solve this problem place your loudspeakers so that nodes progress or differ from one another in a Golden Ratio. The Golden Ratio is a mathematical progression developed in the 12th century by the Italian mathematician Fibonacci and using this formula will eliminate substantial acoustical problems.

To calculate the correct distance of the loudspeaker from the side wall, multiply the room width by .276 (RW x .276) Centre the loudspeakers woofer at this point in the room. The distance from the rear wall is calculated by multiplying the room width by .447 (RW x .447). Measure the distance from the centre of the woofer at the front of the loudspeaker.

We realize that most room configurations will not permit the positioning of loudspeakers in this fashion and we provide this information to show you what an almost ideal audio situation would be. As every A/V installation is a compromise we suggest experimentation. Nothing is perfect but with a lot of care and some determination you will be surprised at just how great your system will sound.

A LOW FREQUENCY TRANSDUCER (LFT) (THE SUBWOOFER)

The performance of the COMODO S and COMODO F will be enhanced by the addition of an Angstrom LOW FREQUENCY TRANSDUCER or, as they are commonly called, „SUBWOOFER“. As there is no such thing as „SUB BASE“ we prefer to refer to these special products more accurately as Low Frequency Transducers. We suggest that you use the Angstrom ALFT10S-150. This product offers stunning performance.

The placement of LFTs will greatly affect the overall balance of sound. They should usually be placed in a corner near the front loudspeakers. The closer they are placed to a wall or corner, the greater the bass output, as the woofers acoustically couple with the room. The overall balance of the system can be altered by the position of the LFT and adjusting the volume control on the LFTs back panel. Experiment with the position and volume setting until a satisfactory result is found. Set the crossover frequency control at 100Hz, slowly rotate the control either way to determine the best blend between the ALFT and the loudspeakers.

LOUDSPEAKERS MUST BE RUN IN

Just as a new car engine has to be „run in“, so do the moving parts of a loudspeaker before the system is able to perform optimally. The edge suspension of the diaphragms and the spiders are manufactured from materials that will stand up to many years of mechanical stress. While the loudspeakers are new, however, these parts are still stiff and will perform sluggishly. They tend to restrict the movement of the diaphragm and the loudspeakers will not perform at their best. A few hours of playing at moderate levels will remedy this problem and the loudspeakers will begin to deliver a more subtle and impelling performance. Your Angstrom COMODO loudspeakers will continue to improve in performance until their parts are mechanically stabilized. After a „break in period“ of approximately 100 hours, they will continue to play optimally for at least 10 years providing that they are NOT overdriven or overloaded.

It is practically impossible to wear out a pair of Angstrom COMODO Loudspeakers. However, continuous overloading (caused by excessive volume levels and / or amplifier clipping) will ruin their performance capability, shorten their life and nullify their warranty.

SPIKES AND PICS FOR THE COMODO F

On the bottom of the COMODO F there are four threaded inserts. Thread the supplied Spikes, with the attached jam nut, into each insert. Use care not to damage the floor with the Spike and place the provided Pic under the Spike. A helper will make this a simple and easy task. Use the jam nut to ensure that the COMODO F is level with the floor.

If you are placing the COMODO F on carpet it is not necessary to use the Pics.

WE WELCOME YOUR COMMENTS

We welcome your comments be they positive or negative. Your opinions will help us to produce even better products. If you do have anything to tell us, please write, fax, phone or e-mail us at the following address.



391 Marwood Drive, Unit 6
Oshawa, Ontario, L1H 7P8
Canada
Tel: 416-988-8806

e-mail: info@angstromloudspeakers.com
www.angstromloudspeakers.com