Music...

Music is an essential part of our emotional life.
When playing an instrument we can experience at first hand what music is about.

In reproduction however, music is often reduced to something that is only „managed" by a reproducing systems...

Managing does not match with emotions and limitation does not go well with experience.

Acapella...

But reproducing systems are indispensable for making any kind of music available everywhere at any time.
We have made it our business to forge links between the world of music and the technical world.

Ideally, reproducing systems turn into instruments.
Cover and content become all one, very close to the human being, close to the senses, close to life. .

This bridge is made of the best materials of the highest durability and an exceptional functioning. Acapella speakers are a unique combination of design, function and technique.

All speakers made by Acapella are carefully manufactured by hand.
The serial numbers are engraved by hand and recorded in the manufacturing documentation. Each speaker receives their own serial number and manufacturing protocol. All characteristics can be reproduced at any time due to the recorded data.

Instruments of high quality always need some time for „burning in"before they can display their full melodiousness. This is also valid for Acapella speakers.
The time for „burning in" for new equipment is about 3 months. When the electronic equipment and/or loudspeaker has not been used for a long period of time, the time for „burning in " is several hours.

LaCampanella...

Every designer of Loudspeakers dreams of achieving acoustic converters that can transmit music with only one chassis, from the deepest bass to the very finest high frequencies of sound, with tender rhythmical definition, with continuous dynamics and at natural volume.

A two-way-system with the best possible separation of the transmission ranges represents the closest convergence to this ideal.

The most sensitive area of human hearing perception lays between 1 kHz and 4 kHz. All overtones of this band width are thus clearly heard as transient effects. Therefore reproduced sounds from beyond 1 kHz to exceeding the range of audibility of the overtones should be emitted by a sound source with the lowest possible moving mass of its membrane from one point. A „radiator accurate to the phase" would be ideal.

Acapella managed to expand the transmission range of a spherical cap from three to five octaves, from 700 Hz to up to over 20 kHz, by the development of a new „hyper spherical horn shape" taking into consideration the natural intensity level.

The result is a dynamic musicality with great definition of sound and readiness that can only be compared to excellent live-music.

Connecting the amplifier

The LaCampanella are equipped with large stable connecting terminals. .
We do not offer any Bi-Wire connections as they would not achieve any acoustic improvements. For connection of the amplifier we recommend using only high-class cables. We think that one high-class cable has to be preferred to two cables of lower quality.

You should not accept variations in quality. The best way to connect LaCampanella to the amplifier is by using Acapella-cables. With the correct connection plugs will allow high contact pressure and contact security. Achieving a low transition resistance.

Positioning the LaCampanella

The speakers should be installed with a distance of at least 2,5 meters from each other – in the best possible symmetrical way, depending on the caliber of the room. This means that the distance between the speakers and between the speakers and the listener's position should be approximately equal. Moreover, the speakers should be slightly turned towards the listener's position. The distance to the side walls of the room should not be less than 50 cm, the distance to the back wall is not considered to be that critical. According to practical experience, very little distance is sufficient enough.

Attention !

Cabinets with Acrylic surface should not be exposed to direct sunlight or extreme heat. Acrylic shows has a high possibility to dimensional change in presence of extreme heat. (A rise of temperature of 10° Celsius results in an expansion of 0,7mm per meter – concerning length as well as breadth). Under severe conditions the adhesive action between the acrylic plates and the cabinet could change.

Basic position

When aligning the speakers the listener's position should be selected in such way that the distance between it and the speakers is about 15 % larger than the distance between the speakers themselves – for example: distance between speakers = 3 meters, distance between speakers and listener's position = 3,5 meters). Now turn the speakers towards the listener's position until you can see a stripe of only 2 cm of the inner cabinet sides. This is the basic position of the speakers. Depending on the size of the room this position can be slightly changed according to the „optimization"described in the following.

Optimization of Loudspeaker placement.

Principle: Stereophonic reproduction of music is only done correctly if the listener has the impression that a mono signal is exactly coming from the middle of the two speakers.

Preparations for optimized position

1. The LaCampanella should be positioned in such way that the listener's position is exactly on the perpendicular line in the middle of the line of the two speakers (LS) The speakers should stand away from the wall and not too close to cupboards or other huge furniture. The distance between the two speakers should be as large as possible (2,5 to 5 m).

2. Now turn the speakers towards each other until the point of intersection of the speaker's center line forms an isosceles triangle together with the difference between the two speakers. The point of intersection lies exactly on the perpendicular of the connection line between the two speakers, as described under step (1.).

3. Now connect both speakers in parallel to the same amplifier channel Please pay attention to the minimum speaker impedance of the amplifier. For LaCampanella speakers the impedance is about 2 Ohm for one pair of speakers therefore not critical for most amplifiers. **WARNING It is not necessary to play ay a high volume level.**
   This is the only way to achieve a real mono signal indispensable for optimization of your speakers. None of the stereo amplifiers known to us are operating exactly on the same output level on both channels. Unless it is supported by a resonance equalizer based on the „**Fondato Silenzio**" technique developed by Acapella. (For more detailed information please visit our website or contact us / your dealer for further information material.

4. Please mark some listening points around the listener's position as well as behind (up to the back wall) and in front of it on the floor – exactly on the perpendicular between the two speakers.

Meaning of the Mono outline

You can optimize the speakers' position – starting from the basic position – taking into consideration the special conditions of the room.
Without exact placement of the loudspeakers it is not possible to fix precisely the direction of voices or instruments in the listening room.

An exact stereo reproduction can only be achieved with perfect mono outline

Proceeding with the first test

5. Please select a music program source with a steady energy distribution containing selections of a sound with mid-range and bass.

6. On the exact hearing position – the so-called Sweet – Spot (on the point of intersection of the speakers' center line) – you should be able to hear a full dynamic music signal coming from the centre of the two speakers

Correct placement of the speakers'.

7. If you cannot hear the reproduced signal containing all frequencies from either of each of the marked hearing points in the middle, please verify steps 1 and 2 again.

8. If after you have carried out the above procedure and the impression from the centre still is not transparent, you can try to improve reproduction by slightly changing the position of the speakers (please mark the chosen position with adhesive spots on the floor). Beginning from the listener's sitting position and following the different hearing points you have marked on the floor - to the back and to the front. If the result achieved by changing the position of the speakers is not sufficient, please move the louder speaker to the back and the more quiet one to the front, but only by millimeter increments. If the result still does not meet your expectations, please start again with step 7. In the best possible case the music signal originating from the rear wall will also appear to come from the centre

Explanation

If the listening room is acoustically tuned to the reproduced waves by the two optimized speakers (as described above), the summation of both energies results in an "axis of symmetry" running through the room. On this axis (= the above-mentioned perpendicular) you can hear the resulting sum signal coming from the middle of the two sources. This signal will also contain all sound reflections of the listening room.

Result

Please switch to stereo reproduction now. The sound appears – depending on quality and time behavior of the total music equipment - three-dimensionally between the two speakers. If your music equipment is placed on the „**Fondato Silenzio**" system, created by Acapella, you can even achieve a holographic reproduction.

Cleaning

Please clean the varnished surface / acrylic coating with a clean, moist chamois cloth. Please be careful when cleaning the centre of the treble horn because of its very sensitive membrane.

Technical data

1. Hyperspherical broad band horn 390mm

Transmission range covering 5 octaves, 700Hz – over 20 kHz
Phase locked, 6 dB matching of high-pass, 750 Hz lower cutoff-frequency
Efficiency 93 dB/W/m
Moved mass less than 0,3 grammas

2. Bass range

4 x 180 mm (6,5") 4 x 1,25 Tesla
Magnet weight 4 x 1,2 kg
Efficiency 93 dB/W/m

3. Compound system

transmission range 20 Hz – 22 kHz
Phase-exact arrangement of the single components of the system
bass-/medium-high sound
Efficiency 93 dB/W/m
Impedance 8 Ohm (Minimum: 5 Ohm / 200 Hz)
Weight 85 kg
Purpose-made chassis
Dimensions B x H x D

Total (Horn)	390 x 1410 x 610 mm
Body	260 x 1300 x 530 mm

ACAPELLA
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