



The C1 is the most compact of the Act line central speakers. It was developed with the same level of attention for all technical details as all other ACT models .

Using the same technologies as the B1, the C1 offers the same qualities of openness and musicality.

The C1 is particularly compact for a high end central speaker. But its capacities are amazing. The C1 is highly dynamic and full of energy. Its highly realistic sound will give life to all your audio and video recordings.

The ACT line

With the ACT line, BC Acoustique wanted to create speakers with a pure and sharp design using advanced technology.

The ACT speakers are the result of several years of research and development. Looking at their fine design, it is hard to realize the efforts that went in the making of the speakers and the level of technology that can be found inside. The result is quite an achievement.

Three specific technical aspects were particularly studied:

- **Internal resonance modes**
- **Phasing**
- **Distortion level**

These three aspects are often weak points on speakers found on the market, and this for a simple reason: the measuring devices used in the world of electroacoustic do not offer the necessary precision to clearly show some important phenomenon for which the human hear is highly receptive.

With this in mind, BC Acoustique decided to develop its own set of measurement devices and to adapt its manufacturing process and testing facilities to these innovative techniques. These devices give our engineers a higher precision in their work, making this a significant progress in the field of electroacoustic.

These technical evolutions make the ACT line an accomplishment with remarkable sound qualities. No place was left for luck.



The Tweeter

The C1 uses 2 drivers. For the treble BC Acoustique chose a BC100 horn tweeter. A common model to all ACT speakers, this tweeter is the result of an important collaboration with Fostex, one of the most prestigious high end drivers' manufacturer.

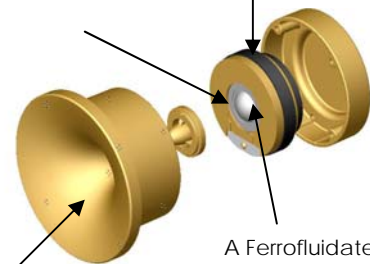
Compared to a classic dome tweeter, the BC100 brings a remarkable definition of higher frequencies, an incredible clarity, efficiency and good transiency.

Its frequency response chart is regular up to 50 kHz for an ideal transcription of high definition sources (SACD or DVD-Audio) without the inconveniences that can be found with super tweeters.

The BC100 can also reproduce all the dynamic that you can find in music or movies without any loss or distortion.

Titanium **Dome**, rigid and light for a fast step response.

A large **double magnet** gives the motor power and speed.



A Ferrofluidated **moving coil** lowers the resonance frequency and increases power handling.

Aluminium **horn** with a profile developed to improve frequency response linearity, ease the phase coherency and limit directivity.

The use of a **Polypropylene diaphragm** with variable thickness makes an excellent compromise between lightness and rigidity. Damping has been particularly studied to guarantee the neutrality of sound.

Rigid **basket** with a very open rear side to reduce the disturbing primary reflections.



Spider was specifically studied to offer a perfectly symmetrical movement.

The **double moving coil** offers more energy in the bass.

Cone profile and suspension specifically designed for a steady frequency response with no accidents. This allows the use of slow slope crossover for higher phase coherence.

The bass-midrange

The C1 is equipped with two 14cm bass-midrange, one passive and one active. They were conceived in cooperation by BC Acoustique and the renown Norwegian drivers manufacturer SEAS.

Both drivers are strictly identical, but the passive one has no magnet. The movement of its diaphragm is created by the vibrations of the active driver. This solution increases the energy in the cabinet while reducing internal standing waves. With a polypropylene cone, this transducer offers a particularly impressive sound density for a speaker of this size. The sound is balanced with remarkably natural tones.

The C1 offers an extremely natural and precise sound, with a wide and even dispersion in the midrange. Transparency and dynamic offer a clear and lively signal, one essential factor for a central channel.

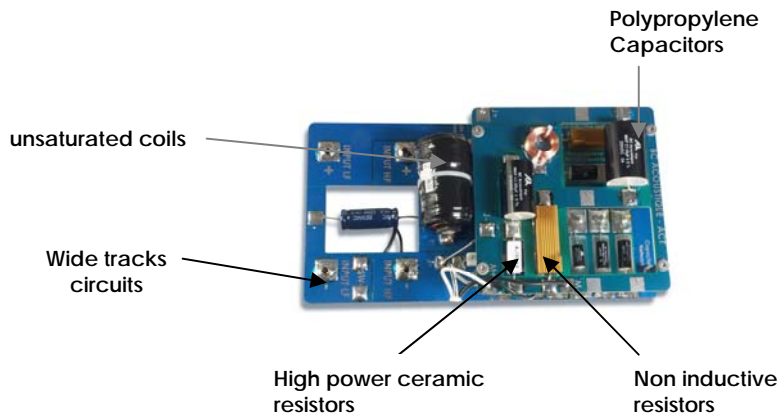


Crossover

The crossover of the C1 was designed with components selected for their top quality. The state of the art connectors come from WBT renown for their mechanical and electrical performances. Internal cables all come from Tara Labs, a leader in cable technology.

Even if its architecture is complex, the crossover is using only a fairly slow first order slope of 6dB/Octave. This solution preserves the phase of the drivers and the coherence of sound.

To make the ACT line easy to adapt to a room, the use of a number of specific resistors allow the auditor to change the level of the tweeter. 5 positions are available to increase or reduce the tweeter level by up to 3dB. It will be simpler to adapt the speakers to the listening conditions of the room and to the other components of the HiFi/AV system.



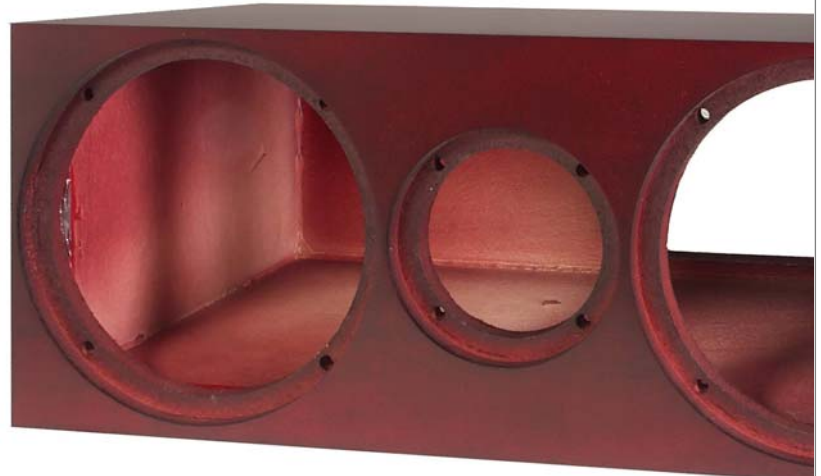
The Woodwork

The cabinet is made out of high density 20mm thick MDF. All wood panels are veneered on both sides to avoid any risk of bending of the wood on the long term.

The load is tuned with a passive radiator, acting like a bass reflex but with the advantage of naturally filtering unwanted frequencies. This gives more options to set and optimize the speaker.

The C1 uses a bass reflex solution. The vent is located underneath the speaker. This placement has been carefully studied to get the best possible efficiency, recovering most of the bass energy, while naturally helping to get rid of the resonating frequency inside the cabinet.

No screw is seen from the outside on the front panel as the drivers are held from the inside. The outer aluminium ring allows a very tight and homogenous fixing of the basket. It facilitates the flow of unwanted vibrations and its curved profile limits the creation of reflections on the outer rim of the basket.



Those small details...

The front grilles are made with removable fabric that can be changed. A completely invisible magnetic system of fixing uses powerful neodyme magnets inserted inside the cabinet and the grille. Thus the fitting is always perfect. The use of magnets has absolutely no effect on sound.

On the contrary this solution does not use the usual plastic pins that create problems of reflections and disturbances on the frequency response.





Quality Control

The C1s are carefully hand made in BC Acoustique's factory. All drivers are tested, selected, ran in and paired.

Crossover is set precisely to compensate potential variations in one or more components. Each crossover is thoroughly tested and measured. It is then compared to the standard measurements.

All these information are recorded and stored in our data base to guarantee the quality of technical service for each speaker that we produce.

Finish and Accessories

The C1 are available with 4 different finish :
Wengé, Amarante, Maple, Cherry (from left to right).

They are delivered with a box of accessories including handling gloves, a soft rag, a bottle of cleaning lotion, a test CD that will allow you to set your installation and improve the run in of your speakers.

The C1 as well as all BC Acoustique's speakers have a lifetime warranty (see conditions).

Drivers

Tweeter	Horn BC100
Woofer Midrange	2x14 cm polypropylene
Terminals	WBT - mono-wiring
Crossover	6/6 dB at 3,5kHz

Performances

Frequency Range (+/-3dB)	60Hz - 50kHz
Distorsion	<1,5%
Maximum long term power	60 Watts
Maximum short term power	100 Watts
Sensitivity (2,83v/1m)	88 dB
Nominal Impedance	4 Ohms
Minimum Impedance	3,6 Ohms

Specifications

Type	Center speaker with passive driver
Dimensions (HxWxD)	18 x 45 x 22 cm
Weight	10 Kg
Cabinet	MDF HD 20mm
Diffusors	NO
Shielded	YES



www.bc-acoustique.com