

Act
Series

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The Tweeter

For the treble of the ACT line, BC Acoustique chose to develop the 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 transience.

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.

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**

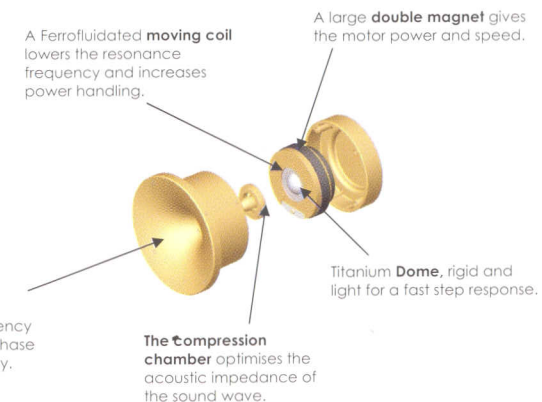
These three aspects are often weak points on speakers found on the market, and this for a simple reason: the measuring devices used in the world of electroacoustic do not offer the necessary precision to clearly show some important phenomenon for which the human hear is highly receptive.

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.

But we always kept in mind that the final goal of all these evolutions was to make sure that the listener would forget all the technical aspects and enjoy the best of what music and sound can offer. This is BC Acoustique's philosophy.

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



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 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

The Bass and Midrange

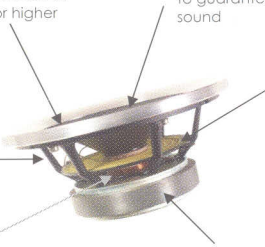
On most of the ACT speakers, BC Acoustique chose to use SEAS drivers for the bass and midrange. All of them were conceived in cooperation by BC Acoustique and the renowned Norwegian drivers' manufacturer under their high quality standard..

The drivers were carefully designed to be perfectly adapted to the need of each speaker.

Polypropylene was chosen for its high qualities, particularly its lightness, rigidity and neutrality.

With such transducers, the performances obtained are remarkable. The midrange is rich, expressive and detailed while the bass is deep, warm with an astonishing clarity.

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



Spider was specifically studied to offer a perfectly symmetrical movement

Moving coil naturally ventilated and cooled. It can reach high acoustic pressure with very low distortion rate

Large size **magnet** improves power, sensitivity and transient response

The Crossover

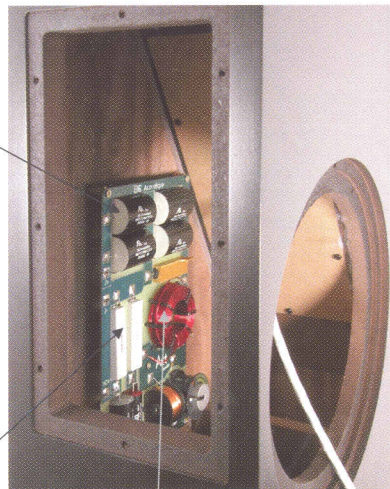
The crossover of the ACT line was designed with components selected for their top quality. The state of the art connectors come from WBT renown for their mechanical and electrical performances. Internal cables all come from Tara Labs, a leader in cable technology.

Even if its architecture is complex, the crossovers are 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.

Polypropylene Capacitors

High power ceramic resistors



Unsaturated coils

The Woodwork

The woodwork is made out of high density 30 to 40mm thick MDF. All wood panels are veneered on both sides to avoid any risk of bending of the wood on the long term.

The internal architecture is quite complex, using diffusors and resonators, inclined panels and stiffening pieces for the cabinet.

These solutions eliminate all sound coloration and resonances. The speaker gains in neutrality and clarity.

The ACT line uses a bass reflex solution. The tuned vent, whose position in the cabinet was carefully studied, is used to increase the energy level but also to get rid of one of the resonating frequency inside the cabinet.

Damping material is used in strategic places to absorb internal waves without affecting micro information.



The drivers are mounted in a very specific way to conciliate acoustic and mechanical benefits while giving the speaker a unique design.

No screw is seen from the outside of the speaker 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.

Diffusors

They break the sound waves to avoid any echoing inside the cabinet. These do not affect all micro information.

Inclined panels

Limit the stationary waves.

Stiffening pieces

Bring more rigidity to the cabinet and suppress stationary waves. Thorough studies were done to find the best setting in the speaker for these elements

Resonators

These independent compartments were designed to absorb unwanted frequencies.





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Finish and Accessories

The ACT speakers are available in 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.

BC Acoustique's speakers have a lifetime warranty (see conditions).

Quality Control

The ACT speakers 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 speaker 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.

Those small details...



The front grilles are made with removable fabric that can be changed. A magnetic system of fixing uses powerful Neodymes 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.

If you do not want to use the front grille, you can also easily put it on the back of the speaker where other magnets have been inserted. This way it will be easy to put away. There will be no mark of plastic pins on the front panel to taint the design of the speaker.

The ACT floor standers are delivered with specific feet to obtain a perfect stability and a mechanical decoupling to isolate the speaker from the floor and eliminate vibrations.



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A1

The A1 is the smallest floorstanding speaker in BC Acoustique's ACT line. Yet, it is very talented. Its moderate size will make it easy to integrate into your room.

The A1 delivers a lively sound, clear and balanced with the high coherence of 2 ways speakers. The stereophonic image, one of the strong points of the ACT line, is of an amazing stability and precision.

Easy to use and to combine with the rest of your Hifi or A/V system, the A1 will perfectly match with a low power high quality amplifier.

Drivers	
Tweeter	Horn BC100
Woofer	17 cm polypropylene
Terminals	WBT - mono-wiring
Crossover	6/6 dB at 3.5kHz

Performances	
Frequency Range (+/-3dB)	52Hz - 50kHz
Distorsion	<1,0%
Maximum long term power	80 Watts
Maximum short term power	150 Watts
Sensitivity (2,83v/1m)	90,0 dB
Nominal Impedance	4 Ohms
Minimum Impedance	3,6 Ohms

Specifications	
Type	Bass-Reflex Floor Standing
Dimensions (HxWxD)	90 x 21 x 33 cm
Weight	32 Kg
Cabinet	MDF HD 30mm
Diffusors	YES
Resonators	YES - 1



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A2

The A2 is the second floorstanding speaker of the ACT line. It keeps the elegance of its little sister, the A1, in a cabinet that is not much bigger in size.

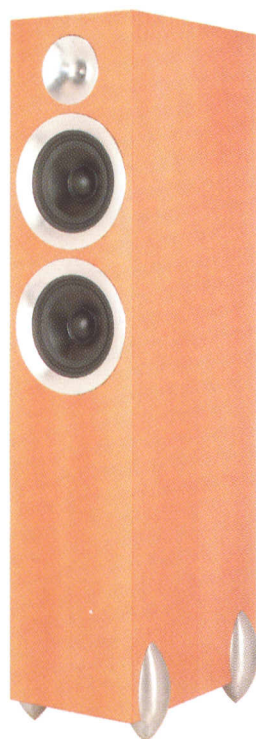
It delivers a very dense and lively sound with a beautiful sound stage so characteristic of the ACT line.

This 3 ways, 3 drivers loudspeaker offers excellent sensitivity. It is not too demanding and can adapt to just about any kind of amplifier with high musicality.

Drivers	
Tweeter	Horn BC100
Midrange	18 cm polypropylene
Woofer	18 cm polypropylene
Terminals	WBT - Bi-wiring
Crossover	6/18 dB at 3,5kHz 12/6 dB at 300Hz

Performances	
Frequency Range (+/-3dB)	44Hz - 50kHz
Distorsion	<0,8%
Maximum long term power	120 Watts
Maximum short term power	250 Watts
Sensitivity (2,83v/1m)	91,0 dB
Nominal Impedance	4 Ohms
Minimum Impedance	3,6 Ohms

Specifications	
Type	Bass-Reflex Floor Standing
Dimensions (HxWxD)	100 x 22 x 36 cm
Weight	38 Kg
Cabinet	MDF HD 30mm
Diffusors	YES
Resonators	YES - 3



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A2.5

This new model in the ACT line is just slightly bigger than the A2 with superior performances.

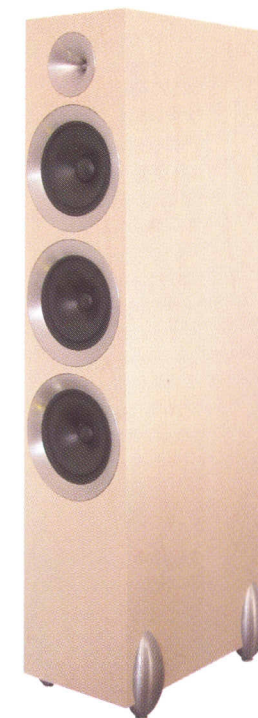
With its 2 bass drivers, the A2.5 has a better dynamic and better power handling.

The impedance of the speakers is quite high and exceptionally stable for low frequencies, a performance rarely seen on that type of speaker. It allows for a perfect match with any kind of amplifier, including valve.

Drivers	
Tweeter	Horn BC100
Midrange	18 cm polypropylene
Woofer	2x18 cm
Terminals	WBT - Bi-wiring
Crossover	6/6 dB at 3,5kHz 6/6 dB at 200Hz

Performances	
Frequency Range (+/-3dB)	39Hz - 50kHz
Distorsion	<0,6%
Maximum long term power	150 Watts
Maximum short term power	500 Watts
Sensitivity (2,83v/1m)	91,5 dB
Nominal Impedance	6 Ohms
Minimum Impedance	4 Ohms

Specifications	
Type	Bass-Reflex Floor Standing
Dimensions (HxWxD)	105 x 22 x 40 cm
Weight	45 Kg
Cabinet	MDF HD 30mm
Diffusors	YES
Resonators	YES - 3



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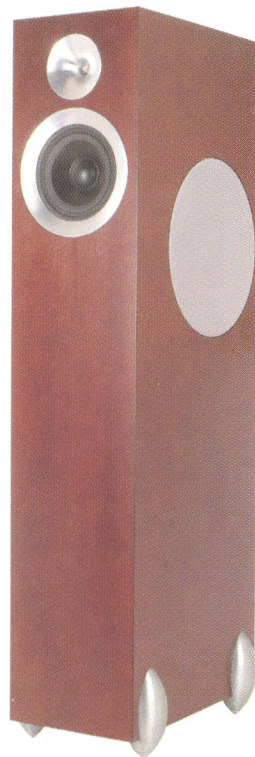
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A3

With a woofer located on the side of the loudspeaker, the A3 offers a beautiful and harmonious line that will make it easy to integrate in any living room.

This solution, meticulously developed by our engineers, allows the speaker to offer very high performances in the bass while keeping an elegant narrow facade.

With an exceptional musicality, the A3 will give you a chance to listen to all the subtle details of music with all high end hi-fi and A/V component.



Drivers

Tweeter	Horn BC100
Midrange	18 cm polypropylene
Woofer	26 cm paper
Terminals	WBT - Bi-wiring
Crossover	6/6 dB at 3.5kHz 6/6 dB at 200Hz

Performances

Frequency Range (+/-3dB)	35Hz - 50kHz
Distorsion	<0.6%
Maximum long term power	200 Watts
Maximum short term power	700 Watts
Sensitivity (2,83v/1m)	91,5 dB
Nominal Impedance	8 Ohms
Minimum Impedance	6 Ohms

Specifications

Type	Bass-Reflex Floor Standing
Dimensions (HxWxD)	110 x 23 x 40 cm
Weight	52 Kg
Cabinet	MDF HD 30mm
Diffusors	YES
Resonators	YES - 3

A4

At the top of the ACT line, the A4 uses the best of all the technological developments imagined by BC Acoustique's engineers and still offers a beautiful design.

Quite imposing, the A4 retains the finesse and elegance of other floorstanding speakers of the ACT line. It uses 2 midrange and an impressive woofer on its side.

Technologically very advanced, the A4 reaches new heights in performances. It will give its best with high end components.



Drivers

Tweeter	Horn BC100
Midrange	2x18 cm polypropylene
Woofer	30 cm Carbon/Paper
Terminals	WBT - Bi-wiring
Crossover	6/18 dB at 3.5kHz 6/6 dB at 150Hz

Performances

Frequency Range (+/-3dB)	25Hz - 50kHz
Distorsion	<0.2%
Maximum long term power	400 Watts
Maximum short term power	1500 Watts
Sensitivity (2,83v/1m)	92 dB
Nominal Impedance	4 Ohms
Minimum Impedance	3.6 Ohms

Specifications

Type	Bass-Reflex Floor Standing
Dimensions (HxWxD)	130 x 24 x 50 cm
Weight	80 Kg
Cabinet	MDF HD 40mm
Diffusors	YES
Resonators	YES - 3

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B1

The bookshelf speaker of the ACT line is as ambitious as the bigger floorstanding models. Its musicality and elegance will impress you.

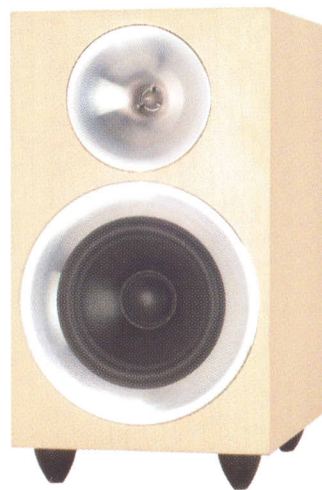
The B1 delivers a very open and lively sound and, for such a small size, it does not lack warmth or fullness. More than that, it will surprise you with the way it fills up a listening room with music without losing precision. The soundstage will seem clear, wide and deep thanks to an impressive frequency range.

With an original concept of bass-reflex, with a vent located underneath the speaker, the B1 can be used on high end stands or near a wall on a rack or shelf.

Drivers	
Tweeter	Horn BC100
Woofer	14 cm polypropylene
Terminals	WBT - mono-wiring
Crossover	6/6 dB at 3.5kHz

Performances	
Frequency Range (+/-3dB)	64Hz - 50kHz
Distorsion	<1.5%
Maximum long term power	60 Watts
Maximum short term power	100 Watts
Sensitivity (2,83v/1m)	88,0 dB
Nominal Impedance	4 Ohms
Minimum Impedance	3,6 Ohms

Specifications	
Type	Bass-Reflex Bookshelf
Dimensions (HxWxD)	30 x 18 x 24 cm
Weight	6 Kg
Cabinet	MDF HD 20mm
Diffusors	YES
Resonators	NO



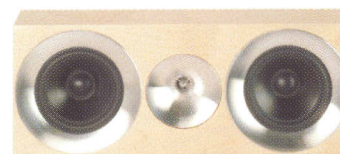
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C1.C2

C1 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.



Drivers	
Tweeter	Horn BC100
Woofer Midrange	2x14 cm polypropylene
Terminals	WBT - mono-wiring
Crossover	6/6 dB at 3.5kHz

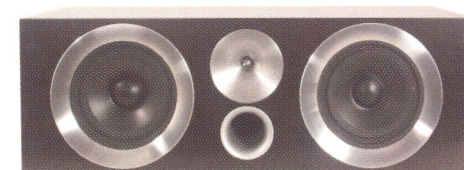
Performances	
Frequency Range (+/-3dB)	60Hz - 50kHz
Distorsion	<1.5%
Maximum long term power	60 Watts
Maximum short term power	100 Watts
Sensitivity (2,83v/1m)	88 dB
Nominal Impedance	4 Ohms
Minimum Impedance	3,6 Ohms

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

C2 The C2 is an amazing centre speaker that will surprise you with its high performances.

Bigger than the C1, the C2 is equipped with the same drivers as the A2 floorstanding.

In a high end AV system, the C2 will work with ease, offering an open and warm sound for crystal clear voices, and sufficient energy to sustain even the most difficult soundtracks.



Drivers	
Tweeter	Horn BC100
Woofer	18 cm polypropylene
Midrange	18 cm polypropylene
Terminals	WBT - Bi-wiring
Crossover	6/6 dB at 3.5kHz 6/6 dB at 600Hz

Performances	
Frequency Range (+/-3dB)	50Hz - 50kHz
Distorsion	<0.8%
Maximum long term power	120 Watts
Maximum short term power	250 Watts
Sensitivity (2,83v/1m)	91 dB
Nominal Impedance	4 Ohms
Minimum Impedance	3,6 Ohms

Specifications	
Type	Center speaker Bass Reflex
Dimensions (HxWxD)	21 x 62 x 26 cm
Weight	16 Kg
Cabinet	MDF HD 25mm
Diffusors	YES
Shielded	YES

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D1

This new surround sound speaker was created to be part of the most prestigious 5.1 and 7.1 home theatre systems.

It uses the technology developed for the ACT line. The D1 can be used as a bipole or dipole speaker to facilitate integration in your sound system.

The front drivers are classic to all models of the ACT line and known for their excellence. With its 2 very specific side drivers and, the D1 offers very high level performances.

Drivers

Tweeter	Horn BC100
Woofers	14 cm polypropylene
Side drivers	2x5 cm Radial Neodyme magnet
Terminals	WBT - double wiring
Crossover	6/6 dB at 3,5kHz 6 dB at 100Hz (side)

Performances

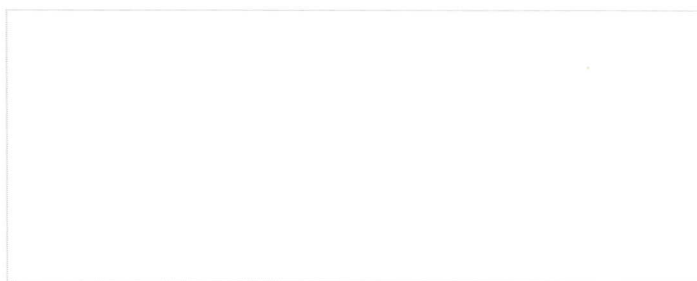
Frequency Range (+/-3dB)	65Hz - 50kHz
Distorsion	<1,5%
Maximum power "large"	80 Watts
Maximum power "small"	200 Watts
	Suggested cut off frequency > 80Hz
Sensitivity (2,83v/1m)	88,0 dB
Nominal Impedance	4 Ohms
Minimum Impedance	3,6 Ohms

Specifications

Dimensions (HxWxD)	30 x 35 x 17 cm
Weight	10 Kg
Cabinet	MDF HD 22mm
Diffusors	YES
Resonators	NO



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