

PRESS INFORMATION

The all new Volvo C70 - Audio

Volvo's new convertible fitted with a world-class sound system

- · Digital technology offers perfect sound
- The sound is adjusted automatically when the roof is folded down
- Output of 910 W
- Dynaudio® speakers with an international reputation
- Dual subwoofers behind the backrests

When it comes to sound experience, the all new Volvo C70 is two cars in one. A concert hall or an outdoor arena – the sound system has been developed to offer high-class sound reproduction with the roof up or down.

Volvo Cars is one of the few automotive manufacturers to develop its own sound system and components. It is now about to launch a high-class digital amplifier and, following intensified collaboration with Dynaudio®, a speaker system that is world-class in every respect.

"A car represents one of the most difficult challenges for an audio engineer," says C70 project manager Patrik Widerstrand. The passenger compartment has irregular shapes, a mixture of hard and soft materials and considerable variation in surface structures. In addition, the road surface changes as you are driving. In a convertible the situation is further complicated by the fact that the roof is sometimes up and sometimes down.

In the new C70 model, Volvo Cars has invested in the latest digital technology to control and adapt sound reproduction to the most challenging conditions.

"The aim has been to offer a first-rate sound experience which remains consistent regardless of where or how you drive," says Patrik Widerstrand.

Digital Signal Processing (DSP) technology is used to adapt the sound to the design of the passenger compartment and the positioning of the speakers. DSP is also used for the fine adjustment of the tone curve, contributing to the creation of natural sound quality.

With the launch of the all new Volvo C70, Volvo Cars will introduce a digital class D amplifier that is considerably more efficient than its analogue equivalent. A digital amplifier of 130 W, for example, requires less power to operate than an analogue equivalent of 100 W. It can also be made more compact and generates less heat.

Volume and tone adjusted automatically

Thanks to digital technology, the sound can be adapted to the driving situation. Not only the volume but also the tone settings are adjusted automatically in line with the car's speed. The sound is also adjusted automatically when the car's roof is up or down to ensure that the listener gets the same sound experience regardless of ambient conditions.

There is also scope for individual preferences. In the car's personal settings menu it is possible to choose how much the sound should be adjusted according to vehicle speed. There are three levels to choose from: low, medium and high.

Three levels of performance

There are three sound system levels available for the all new Volvo C70:

- Performance with a 4x20 W amplifier and four speakers
- High Performance with a 4x40 W amplifier and eight speakers
- Premium Sound with a 5x130 W digital amplifier, Dolby® Pro Logic II Surround and up to fourteen speakers, including dual subwoofers (option).

Each subwoofer has an integrated 130 W amplifier. In total, the Premium Sound system with double subwoofers has an output of almost 1 kW.

Dynaudio's logotype on the dashboard

"A sound system of Premium Sound rating is indicated by the Dynaudio® logo on the dashboard," says Patrik Widerstrand. "It is a sign that the car is equipped with the very best speakers."

Dynaudio® is one of the world's foremost developers and manufacturers of speaker systems, both for home use and professional studios. The company has received a whole series of awards for its products, which are developed according to extremely strict quality demands.

With the launch of the all new Volvo C70, co-operation between Volvo Cars and Dynaudio® has entered a new, more intense phase. The Premium Sound speakers in the C70 are of extremely high quality for a mass-produced car. In the doors there are well-proportioned three-way speakers. The bass drivers are 8" with powerful 3" voice coils that can withstand high output. Even the midrange drivers have powerful voice coils. The tweeters are made of fabric (silk dome tweeter), a Dynaudio® speciality that helps produce a cleaner sound. Each speaker has a passive crossover to produce a harmonious, total sound experience with the best possible bandwidth and dynamics.

Specially developed centre speakers on the dashboard interact with the door speakers to create a natural, homogeneous sound.

The rear side panels have combined bass/midrange drivers. Even these have powerful voice coils and the same type of tweeters as in the front doors.

To achieve even deeper, richer bass tones, the system can be complemented with dual 8" subwoofers, mounted in the wall behind the rear backrest. These have separate class D amplifiers, each producing 130 W.

"It is certainly no exaggeration to use the term concert hall quality for the sound reproduction in the all new Volvo C70," says Patrik Widerstrand. "We can offer what is the best sound experience ever in a Volvo regardless of whether the roof is up or down."

KH 2005-09-12