

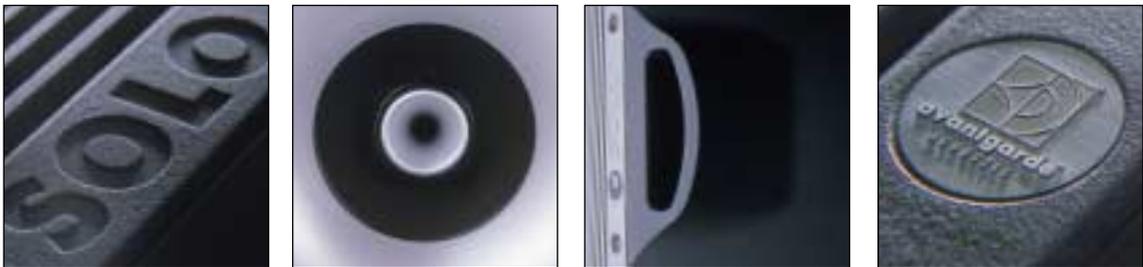
avantgardeTM
A C O U S T I C





solo

Proudly taking its place in a legendary family of horn speakers, the SOLO is the first compact fullrange horn loudspeaker system from Avantgarde Acoustic. The SOLO active coaxial horn system, with its graceful futuristic design is a full-blooded member of the Avantgarde family. That means you will get all the passion and emotional involvement that only an Avantgarde horn loudspeaker can provide. The famous Avantgarde virtues which have made Avantgarde Acoustic the most soughtafter and acclaimed loudspeakers, are all found in the SOLO: Precise reproduction,



powerful drive, and involving dynamics. The result? The SOLO conveys that special Avantgarde feeling. Be prepared, the SOLO plays a seductive tune. Your reactions to the subtlest dynamic changes will draw you deeper into your music than you ever imagined. Have you ever noticed how you can recognize live music coming from a room that you haven't even entered yet? Essentially, this unmistakable live-sounding difference is experienced through the music's dynamic contrasts. The SOLO masters these contrasts in a totally natural way and simply sounds and feels as if your music is live. Once you've experienced this feeling, you'll be bored with anything less. Of course, as an Avantgarde, the SOLO is capable of effortless volume levels far beyond expectations. So whether it's a delicate string quartet or a rock band at full intensity, that live feeling will always be yours to experience, whenever you want it. How will you describe the SOLO when you have it in your home? Thrilling? Passionate? Powerful? Full-blooded? Yes, all of these, and more. As Ettore Bugatti would have said — "Le Pur Sang des Hautes Parleurs". Yet the SOLO is as musically refined as a Stradivarius.





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Coaxial spherical horn

The SOLO is a two-way bass reflex system, comprising a 1" compression driver concentrically mounted to the rear of a 12" bass driver. The tweeter fires through the center of the bass driver's 4" voice coil, providing a single point source, thus dramatically reducing phasing problems in the crossover region. The controlled and homogeneous

radiation pattern ensures an unmatched image stability and neutrality even if the listener is seated off axis. This makes the SOLO a perfect choice for two-channel stereo and home cinema applications. The enclosure and the horns of the SOLO are made from specially molded polyurethane composite, designed to optimize acoustical specifications. The homogeneous molecular structure of the composite, the varying material thickness and the additional structural supports inside result in an almost acoustically inert enclosure. The round shape of the enclosure gives excellent prevention from standing waves and makes the SOLO physically



very solid and robust. Using the mid-range horn and the amplifier module as a structural part of the enclosure helped in significantly reducing the size of this fully horn loaded system.

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Horn/phase plug concept

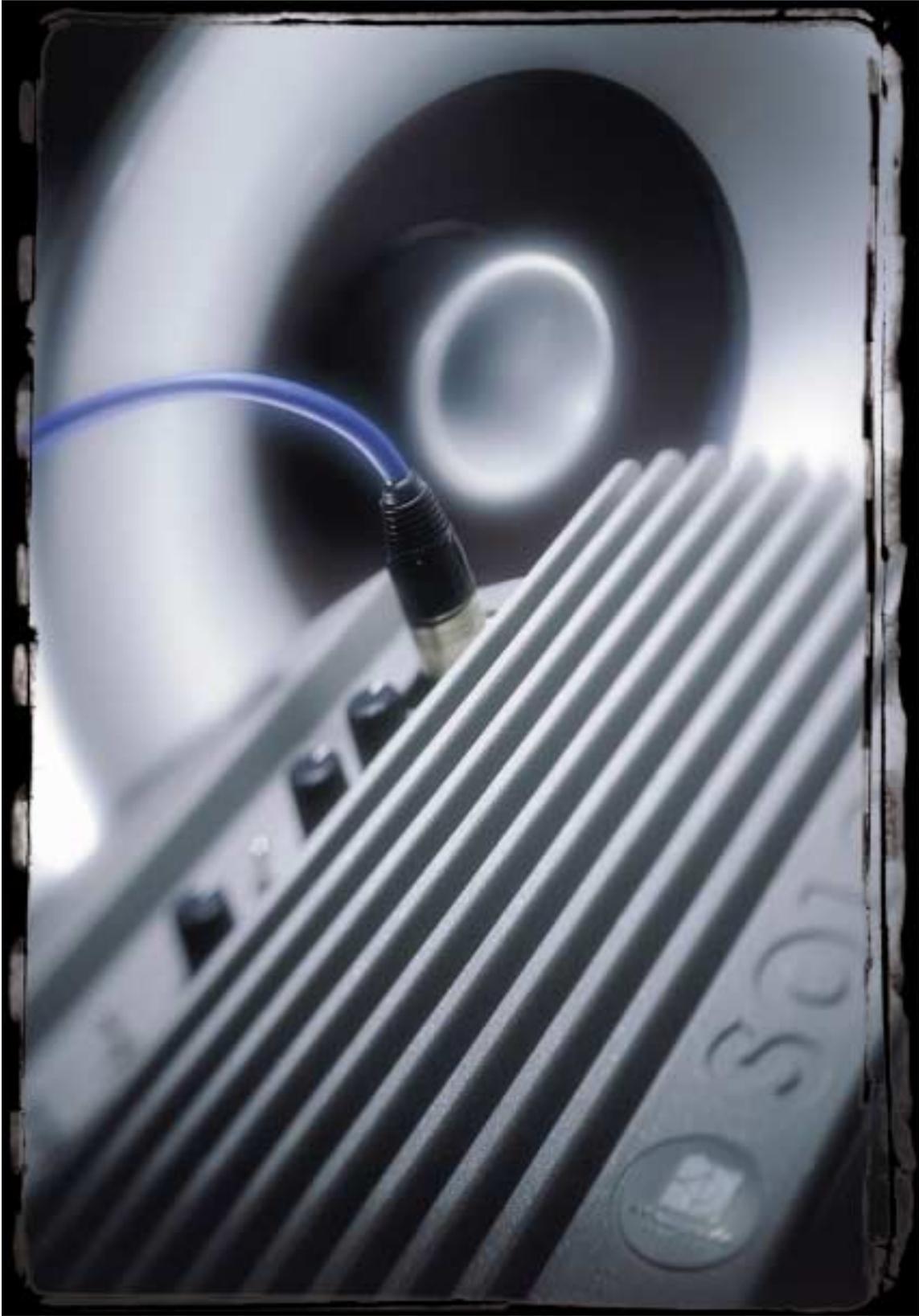
Usually, coaxial speakers use the membrane of the bass unit as the tweeter horn. This design causes the tweeter horn to constantly vibrate, thus causing severe colorations. The SOLO tweeter radiates into a fully extended 4" spherical high-frequency horn, which also serves as a phase plug for the bass driver. This concept decisively extends the frequency response of the bass driver and permits a very simple 1st-order passive crossover. As a result the SOLO's performance is phase coherent, yet very dynamic and with an incredible resolution of fine detail.

Drivers

Bass and mid-bass of the SOLO are driven by the powerful 12C250 driver. Its outstanding performance is achieved by the application of an oversized 4" voice coil and a paper cone of extreme rigidity and minimized moving mass. The massive 8" high-energy magnet, with over 8.7 kg of clean magnet power and the optimized suspension of the cone, provides for long linear excursions within the symmetrical magnetic field. The HI tweeter is based upon the same design principle as the nearly "legendary" TRIO tweeter H3. The oversized magnet and the observance of minimum air gap tolerances result in very low distortion and excellent transient characteristics.

New composite materials and design

The enclosure and the horns of the SOLO are made





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The Control Power Module PA201

The built-in 250-watt amplifier equalizes the system's low-frequency response and ensures extended full-range speaker capabilities out of a surprisingly small and compact enclosure. A substantial 270 VA transformer and a total of 20,000µF reservoir capacitance provide the necessary high-energy reserves for critical musical pas-

An active high-pass filter allows the adjustment of the lower cut-off frequency of the SOLO. This way it is easy to integrate subwoofers if necessary, or to operate the SOLO with a variable subsonic filter. A defeat switch bypasses this filter, thus shortening the signal path. The bass response can be adjusted to cope with various installation requirements, e.g. corner placement or wall/ceiling



sages. The amplifier's high damping factor ensures precise control of the drivers. A newly designed circuit aligns phase shifts of the passive crossover components and equals the sensitivity differences between the tweeter and the bass driver. To avoid noise when switching the SOLO on, the PA201 is equipped with a Soft-Start circuit, gently powering the amp into operation, thereby avoiding the use of conventional relays with their noise and reliability problems.

mounting. The treble response can also be equalized, e.g. to compensate for high-frequency cut-offs when installing the SOLO behind a home theater screen. A switched power input allows the SOLO to be switched on and off by a 12V/DC remote signal. In case of hum loops a ground lift switch enables the user to lift the potential of the ground.

The Active Input Stage

The SOLO can be connected to phono (RCA) or balanced preamplifier outputs via professional XLR input terminals. Direct connection to speaker outputs from integrated amplifiers, power amplifiers or receivers, etc. is also possible. Input sensitivity can be adjusted to compensate for different output levels of amplifiers or preamplifiers, and to compensate for different speaker levels.

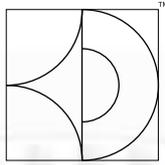
Installation

Avantgarde offers an elegant SOLO loudspeaker stand for floor mount installations. Optional mounting brackets are available for wall or ceiling mount.

Finishes

Avantgarde offers a wide choice of colors for the horns, ranging from the classic black high-gloss finish of the standard version to elegant special metallic lacquers. The enclosure of the SOLO is finished in high-quality charcoal grey NEXTEL.

System data		
Frequency response Power handling Sensitivity (1 watt/1 m) Crossover frequencies Crossover slope Recommended room size		30 – 20,000 Hz 250 watt > 97 dB 2000 Hz 6 dB/Oktave > 15 sq m/150 sq ft
Horn diameter	Bass Tweeter	460 mm/18.1 in 100 mm/3.9 in
Horn length	Bass Tweeter	60 mm/2.4 in 60 mm/2.4 in
System size	Width Depth Height Weight	460 mm/18.1 in 455 mm/17.9 in 460 mm/18.1 in 30 kg/66 lb
Drivers		
	Nominal diameter Rated impedance Power capacity Sensitivity (1 watt/1 m) Voice coil diameter Magnetic assembly weight B/L factor Moving mass Max. excursion	300 mm/11.8 in 8 ohm 250 watt 97 dB 100 mm/4.0 in 8.7 kg/19.1 lb 207 N/A 39 g/1.36 oz ± 5 mm/0.195 in
	Cone material Basket material Voice coil Net weight	Paper Die-cast aluminum Edge-wound copper 10.75 kg/23.7 lb
Tweeter		
	Throat diameter Voice coil diameter Nominal impedance Power capacity Sensitivity (1 watt/1 m) Frequency range Magnetic assembly weight Flux density BL factor	25 mm/1 in 44.4 mm/1.75 in 16 ohms 50 watt 102 dB 800 – 20,000 Hz 3.1 kg/6.8 lb 1.9 T 9.8 N/A
	Diaphragm Voice coil former Voice coil Overall diameter Depth Net weight	Aluminum Kapton Edge-wound copper 144 mm/5.7 in 67 mm/2.6 in 3.25 kg/7.2 lb
Amplifier		
	250 watt amplifier Active crossover Low-frequency filter Bass EQ Treble EQ Ground lift switch Speaker level input Line level input	integrated integrated var. from 20 – 120 Hz adjustable 0/-2 dB/+3 dB integrated integrated integrated



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