

850



Danish Audiophile Loudspeaker Industries

ACCURACY

DALI's leading edge engineering, critical component selection and in-house assembly of cabinets and crossovers all come together in the DALI 850, with an exciting combination of attractive aesthetics and exceptional sonic performance and outstanding power handling which immediately establish the DALI 850 at the head of its class.

The DALI 850 is the direct result of extensive research into the significance of correct timing as a means to achieving accuracy and neutrality in music reproduction. Consequently, the DALI 850 is eminently capable of conveying complex temporal relationships, as well as a precise rendering of the tonal elements of all forms of music. The expert integration of selected driver units and close-tolerance crossover components housed in an enclosure of exceptional structural integrity allows the DALI 850 to achieve new levels of temporal and tonal accuracy with uniformly smooth frequency response even at large off-axis angles.

Drivers

The DALI 850 utilizes a pair of 8" die-cast woofers for deep, tuneful bass. Twin 8" drivers offer the equivalent radiating area of a 12" unit, but with significant advantages. Two drivers with separate voice coils permits improved heat dissipation for higher power handling. Two smaller drivers also allows a higher crossover point for improved midrange clarity.

The two drivers are positioned for optimum dispersion, reducing the detrimental influence of floor reflections.

Each woofer occupies a separate bass reflex enclosure with its vent on the rear panel immediately opposite the driver, for a virtually symmetrical coupling of the driver diaphragm to its air volume.

Placing the vent on the rear panel also eliminates the audible effect of turbulence from the vent.

For fast, accurate transient response, the bass drivers' lightweight, rigid paper diaphragms are custom-coated to achieve the correct balance between rigidity and internal damping. The low loss diaphragm surround is constructed to minimize non-linear damping for reduced mechanical distortion.

The 5" midrange unit employs the same diaphragm material as the bass driver in conjunction with a magnet assembly that eliminates undesirable interaction between the magnetic fields generated by the voice coil and by the magnet assembly. The new magnet assembly configuration enhances the dynamic capabilities of the driver and reduces harmonic distortion.

The midrange driver is housed in a damped, sealed, asymmetrical chamber to effectively reduce resonances.

The high frequency driver selected for the DALI 850 is a 1" unit with a coated cloth dome. Unlike other tweeters, the coating is applied to the side of the diaphragm which is in direct contact with the voice coil former, ensuring more efficient energy transfer from the voice coil to the coated diaphragm, and thereby enhancing the dynamic performance of the unit.

The tweeter incorporates a ventilated pole piece and a rear chamber. This construction simultaneously prevents compression effects from building up behind the diaphragm and shifts the tweeter's resonant frequency well below the unit's operating range.

While dome tweeters typically suffer from distortions generated by uncontrolled motion at the diaphragm's unsupported center, the DALI 850 solves this problem with a cover which eliminates the

audible effects of flexing at the dome center.

The excellent dispersion characteristics, dynamic integrity and high resolution of the dome tweeter make a significant contribution to the overall fine musical performance of the DALI 850.

Crossover network

To optimize signal transfer between amplifier and loudspeaker, DALI 850 incorporates high-grade components in an advanced crossover configuration which presents a smooth, frequency-independent impedance load to the amplifier, allowing any amplifier to perform at its best.

Because the crossover network is designed for minimal insertion loss and effective energy transfer, DALI 850 offers high efficiency and high total system power handling which are rare in a true high fidelity loudspeaker.

To ensure the highest standard of consistency in component quality in the DALI 850, air-core inductors are manufactured at our own facility. Only the finest capacitors, metallised polypropylene or plain foil types, are employed in the signal path.

Bi-wiring or bi-amping of the DALI 850 is possible via two pairs of gold-plated terminals which accept banana plugs or heavy-gauge bare wire.

Enclosure

The high level of structural integrity of the DALI 850 cabinet enhances the performance of the crossover and drivers by effectively rendering the enclosure immune to "boxy" distortions caused by resonances.

The narrow front baffle of 25mm MDF ensures maximum rigidity. The remaining sides employ 22mm particleboard with extensive internal bracing for further suppression of resonances.

Modal analysis of the DALI 850 in the DALI labs documents the "deadness" of the enclosure and listening tests confirm the high resolution available when resonances are effectively eliminated.

Specifications:

Cabinet type.....Bass reflex x 2
Crossover frequency..650/3000Hz
Nominal impedance.....4 ohms
System resonance.....31Hz
Frequency response +/- 3dB.....31-20000Hz

Recommended amplifier power.....30-500 Watt
Maximum Sound Pressure Level.....114dB
Sensitivity (2.83V/1 meter)....92dB
Dimensions (HxWxD).....102x28x37cm
Weight.....29 kgs/64 lbs



Danish Audiophile Loudspeaker Industries

Grynderupvejen 12 · DK-Nørager · Tel. +45 98 55 17 00 · Fax + 45 98 55 17 11