

To create the illusion of live music in home listening environments requires a loudspeaker that is tonally correct, images precisely, reproduces fine detail cleanly, and is capable of reproducing

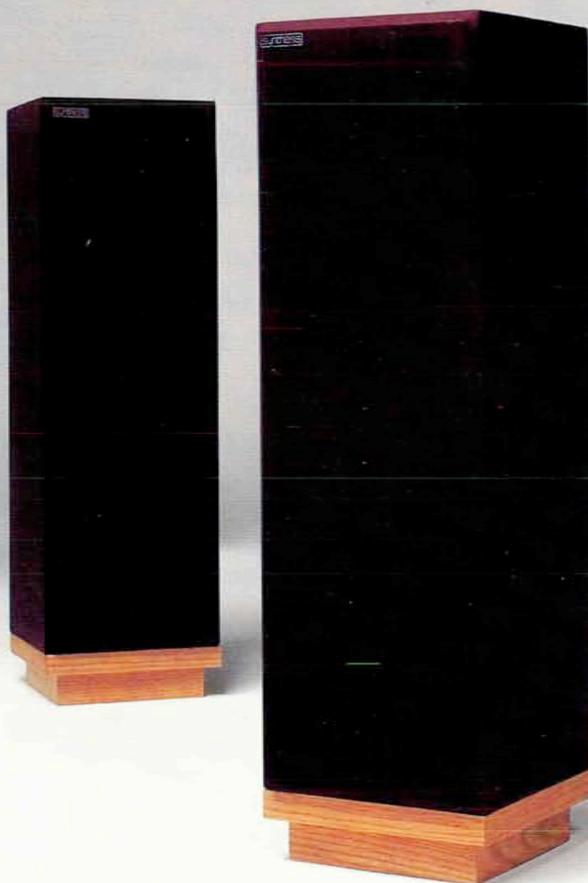
the wide dynamic contrasts of live music. Synthesis speakers have been painstakingly designed to be high quality, moderately priced loudspeakers that satisfy these demanding requirements.

synthesis<sup>TM</sup>

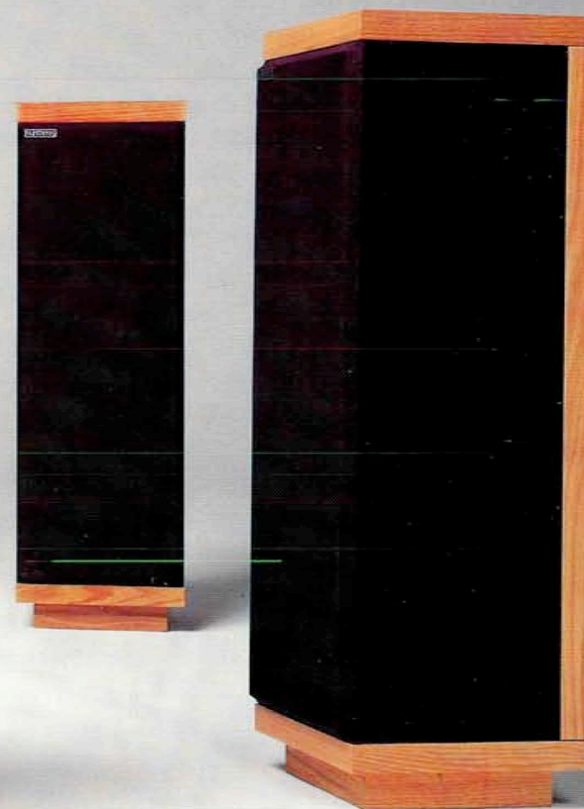
LM20



LM200



LM250D





Synthesis™ loudspeaker designs embody the results of an intensive research program. Our sophisticated computer based FFT measurement system provides a refined tool for the evaluation of driver designs, the fine-tuning of crossover circuits, the precise phase alignment of drivers and the shaping of cabinet designs to minimize diffraction effects. Computer simulation of low bass performance enables us to accurately tune the ported bass enclosures for optimum transient response. While advanced computer aided measurement and design techniques have been invaluable, many important attributes of live music are not amenable to measurement or analysis. In fact, the blind pursuit of theoretical ideals in the face of realities which depart significantly from theory often results in unmusical loudspeaker designs. Ultimately, the ability of a loudspeaker to faithfully recreate live music will depend upon the perception and judgement of its designers. Accordingly, the final version of a Synthesis loudspeaker design is the product of exhaustive auditioning

of alternative approaches by our designers: William Conrad, Lewis Johnson and David Fokos.

It should be obvious that there are no short-cuts to excellence. The quality of a loudspeaker can be no greater than that of its component parts. Synthesis drivers are precision made from high quality materials to achieve rugged durability and sonic excellence. Crossover coils and capacitors have been carefully selected on the basis of sonic purity and stability so that these speakers will sound the same decades after they are new. Even cabinets have been designed to provide lasting value. Solid hardwood trim, fine wood finishes on elegantly simple designs endow these speakers with enduring beauty.

Even in loudspeakers good things can come in small packages. Unlike other "mini-monitors", the Synthesis LM20 is a full range design capable of satisfying bass performance. The LM20 uses a 6.5 inch polypropylene woofer and a 1 inch soft polymer dome tweeter with crossover at 1500 Hz. Sensitivity is 90 db at one meter for one watt input. Beautifully

hand finished oak is handsomely contrasted with a brown open-cell foam grill. Dimensions are 14.5" x 14.5" x 10.5". Weight is 18 pounds.

The simple, elegant styling of the Synthesis LM200 will blend harmoniously with any decor. It uses a 6.5 inch polypropylene woofer and a 1 inch doped fabric dome tweeter. The crossover is at 1250 Hz. Sensitivity is 89 db at one meter for one watt input. Available in choice of brown or cream fabric with golden oak trim. Dimensions are 10" x 10" x 33.75" and weight is 36 pounds.

The elegant oak cabinet of the Synthesis LM250D (shown) has been painstakingly handcrafted by a master furniture maker. The LM250 uses an 8 inch polypropylene woofer and a 1 inch doped fabric domed tweeter. The crossover frequency is 1250 Hz. Sensitivity is 91 db for one watt input at one meter. Available in brown or cream fabric. Dimensions are 10.625" x 10.625" x 33.75". Weight is 46 pounds.

# *Synthesis® Loudspeakers*

Many who are unaccustomed to live music choose a loudspeaker to embellish reality by adding top end sizzle, increased presence, or exaggerated bass. Synthesis Loudspeakers are designed for those discriminating listeners who instead strive to preserve the integrity of musical performances.

## *The Synthesis Reference System*





*LM310*



*LM260*



*LM210*

The Synthesis approach to loudspeaker design combines advanced computer measurement and simulation techniques with exhaustive auditioning by the design team and other musically experienced listeners. Computerized measurements assist in selecting highest quality drivers for each application, designing crossovers to precisely blend the chosen drivers and maintain linear phase characteristics, and time aligning the drivers. Computer simulations aid in the tuning of cabinet ports, improving linearity of operation of the bass units and optimizing bass transient response. Lengthy listening sessions are the basis for selecting among alternative designs, and for fine-tuning the final design.

Painstaking attention to detail, and care in production are essential elements in the manufacture of musically accurate loudspeakers. Each part of the speaker system has been carefully selected for its purpose. Synthesis crossover networks make extensive use of polypropylene and polystyrene capacitors where electrolytics would normally be found. Internal hookup wire has been chosen for sonic excellence. The cabinets are handcrafted of furniture grade hardwoods and veneers. The graceful form of these Synthesis cabinets was dictated by functional considerations. The radiused edges minimize diffraction effects, while the sloped baffle achieves time and phase alignment of the high and low frequency drivers.

**The Synthesis Reference System** is the ultimate realization of the Synthesis approach to loudspeaker design. A bi-amplified system of Mid/High Monitors and Subwoofer Towers in four stunning, handcrafted golden oak cabinets, the Reference System is a happy marriage of functional design and sculptural form. Just 10" square, and 44" high, the Monitor is itself a near full-range loudspeaker, covering the frequency range from 100 Hz. to beyond 35,000 Hz. It employs a 7" fiber-reinforced polymer cone midrange, a 1" doped fabric dome tweeter, and a leaf super-tweeter, each

selected as the finest available driver of its type. Measuring 14½" by 16" and standing 5'9" tall, the subwoofer cabinets mirror the distinctive form of the Mid/High units. Each houses two ten inch drivers custom designed to handle the low frequencies from below 25 Hz. to 100 Hz. The Synthesis Reference System reproduces any program material with authority, maintaining its tonal neutrality, and unparalleled resolution at all listening levels. The system is capable of projecting a broad, deep soundstage with images precisely focused in three dimensions.

**The Synthesis LM210** is a two way system with a 6.5" polypropylene bass/midrange driver crossed over to a 1" doped fabric dome tweeter at 1500Hz. This speaker system can produce an astonishingly full sound at moderate listening levels with clarity and definition competitive with far more expensive speakers. Stereo imaging is stable and well focused. The LM210 cabinet is 10½" square and 33½" tall.

**The Synthesis LM260** is a two way system with a polypropylene 8" bass/midrange driver crossed over at 1500Hz to a 1" doped fabric dome tweeter. This speaker offers a somewhat fuller sound and is capable of playing at significantly higher listening levels than the smaller LM210. It's sound is smooth and uncolored, with a sharply focused stereo image. Dimensions are 12" wide by 11" deep by 39½" tall.

**The Synthesis LM310** is a scaled-down version of the Reference System. It is a three way system using one of the 10" drivers, and the 7" midrange driver used in the larger system. The tweeter is a 1" doped fabric dome. Crossover frequencies are 85Hz and 1500Hz. This model offers solid bass to below 30Hz, smooth midrange, and extended highs. It offers high resolution, tonal neutrality, and precise imaging. 14½" x 15½" x 44".

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