SPECIFICATIONS

DISCUSSION

IT IS IMPOSSIBLE TODAY TO DETERMINE SOUND QUALITY OF SPEAKERS FROM SPECIFICATIONS. THE FLAWS IN SPEAKERS WHICH LIMIT CLARITY OR CAUSE LISTENING FATIGUE DO NOT SHOW UP IN SPECIFICATIONS OR IN MOST CASES EVEN IN ELABORATE ACOUSTIC MEASUREMENTS.

MY DESIGNS ARE BASED ON DECADES OF LEARNING WHAT GOES WRONG WITH SPEAKERS THAT CORRELATES WITH UNPLEASANT LISTENING EXPERIENCE AND TO AVOID THOSE PROBLEMS.

FROM A POSITIVE POINT OF VIEW, IT IS IMPORTANT TO REPRODUCE THE ENTIRE RANGE OF WHAT HUMAN HEARING IS CAPABLE AND TO PRODUCE THAT UNIFORMLY IN THREE DIMENSIONAL SPACE. FOR WHAT IT IS WORTH, I DO INCLUDE A SET OF SPECIFICATIONS.

INTANGIBLES

DISPERSION

Sound normally spreads in three dimensions, 40Hz to $10,000\text{ Hz} \pm 2\text{ dB}$ AT ALL FREQUENCIES. THEREFORE, SO DOES OUR $\,$ 30 Hz to 17,000 Hz \pm 4 DB SPEAKER, UNLIKE MANY OTHERS.

RINGING

SPEAKERS SHOULD NOT SOUND LIKE A BELL: HENCE. AT REAR THE WOOFER MAGNET IS ENCAPSULATED, DAMPING POWER MAXIMUM: 50 WATTS CONTINUOUS MATERIAL IS INSIDE THE CABINET, THE TWEETER COIL POWER RECOMMENDED: 200 WATTS RECOMMENDED IS DAMPED BY A MAGNETIC LIQUID, CABINET WALLS FOR ARE THICK AND BRACED, EDGES OF THE CABINET ARE TRANSIENTS ROUNDED.

PHASE RESPONSE

AS A FUNCTION OF FREQUENCY, THE RATE OF CHANGE IS MINIMIZED THROUGH CAREFUL CONTROL OF ELECTRICALLY TO ROLL OFF NATURALLY, NO REACTIVE COMPONENTS IN THE CROSSOVER, WODERN, ADDITIONAL FILTERING IS NECESSARY FROM THE TWEETER AND CABINET.

ROOM ACOUSTICS

SMOOTHLY INTO THE ROOM FROM ITS ASSIGNED ROOM LOCATION. POSITION, WITHOUT CAUSING RESONANCES OR FREQUENCY: 1600Hz, Woofer Slope: 24 INTERFERENCES.

CONVENTIONAL

FREQUENCY RESPONSE

20 Hz to 20,000 Hz \pm 6 pB

DIMENSIONS:

131/2" WIDE; 9" DEEP; 22" AT FRONT, 25"

HANDLING

RATED IMPEDANCE: 6 DHMS MINIMUM IMPEDANCE: 4 OHMS

CROSSOVER

THE WOOFER IS DESIGNED MECHANICALLY AND CROSSOVER. A TWO POLE NETWORK ADDS TO THE NATURAL ROLLOFF OF THE TWEETER, ADDITIONAL COMPONENTS EQUALIZE THE TWEETER RESPONSE TO THE SPEAKER IS DESIGNED TO SLIDE THE SOUND. ACHIEVE MAXIMUM FLATNESS IN THE PRESCRIBED

> DB/OCTAVE. TWEETER

SLOPE: 24BD/OCTAVE

DRIVER COMPLEMENT

WOOFER: 6.5" WITH ±" LINEAR TRAVEL

TWEETER: 1" SOFT DOME TYPE WITH MAGNETIC COOLING

FLUID

SHIPPING WEIGHT: 30 LB.

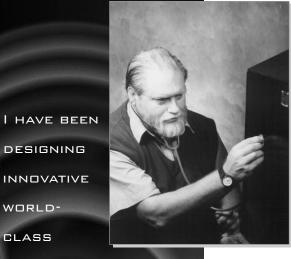


QUALITY LOUDSPEAKERS SOLD DIRECTLY TO THE PUBLIC

594 SAGAMORE AVENUE, PORTSMOUTH, NEW HAMPSHIRE 03801 TEL: 603-431-5161 • FAX: 207-439-9461

THE LISTENING EXPERIENCE





SILENCE

5 PEAKER THE MISSION OF "SILENT SPEAKERS" IS TO ELIMINATE BARRIERS BETWEEN YOU AND TRULY REALISTIC SOUND. THE CONCEPT OF "SILENCE" IS BASED ON THE PREMISE THAT SPEAKERS CAN MAKE SOUNDS THAT ARE NOT ON THE RECORDING. THESE SOUNDS INCLUDE ALL FORMS OF DISTORTION, IRREGULARITIES IN FREQUENCY RESPONSE AS WELL AS RESONANCES CREATED WITHIN THE SPEAKER AND ACQUISTIC DISTORTIONS IN THE RADIATION OF SOUND FROM THE CABINET. WHEN ALL OF THESE SOUNDS ARE ELIMINATED, THE PRESENCE OF THE SPEAKER DISAPPEARS.

They are called "Silent Speakers" because their sound is so life like that you cannot tell that you are listening to speakers.

SPEAKERS FOR A

VARIETY OF

DESIGNING

INNOVATIVE

WORLD-

CLASS

COMPANIES FOR

OVER THIRTY YEARS.

THIS LATEST DESIGN

USES A DRAMATIC

BREAKTHROUGH IN

DEEP BASS

REPRODUCTION AND

USES ALL THE

REFINEMENTS I KNOW

OF TO MAKE THE

TONAL SOUND

REPRODUCTION

NATURAL AND

PLEASING. THIS

INCLUDES DESIGNING

THE CABINETS TO

BLEND SMOOTHLY

INTO THE ROOM

ACOUSTICS.

ROOM ACOUSTICS

"SILENT SPEAKERS" ARE DESIGNED FOR SPECIFIC ROOM PLACEMENT, FOR EXAMPLE, AGAINST A WALL AND SITTING ON THE FLOOR. DRIVE UNITS ARE ON A SLANTING BAFFLE, FACING UP, IN ORDER TO HELP AVOID CREATING STANDING WAVES AND ROOM ACQUISTICS.

BASS ENHANCEMENT

THE COMPLEX INTERNAL CABINET CHAMBERS EXTRACT THE BASS FREQUENCIES FROM THE LOW FREQUENCY DRIVER AND FEED THEM OUT THROUGH A SLOT IN THE BOTTOM OF THE CABINET. LOW FREQUENCY PERFORMANCE IS GREATLY EXTENDED WITH MINIMUM TURBULENCE.

GRILLE

THE GRILLE IS SHAPED PRECISELY IN ORDER TO BECOME PART OF THE BAFFLING OF THE DRIVERS.

CABINET

THE CABINET IS CONSTRUCTED OF HEAVY NON-POROUS WOODEN MATERIAL COMMONLY CALLED "MDF". IT IS INTERNALLY BRACED TO PREVENT VIBRATION OR INTERNAL RESONANCES.





WOOFER

FOR DEEP BASS, THE WOOFER IS DESIGNED WITH A LONG VOICE COIL AND A SOFT SUSPENSION. IT IS RELATIVELY SMALL IN DIAMETER, IN ORDER TO PROVIDE GOOD DISPERSION AT THE CROSSOVER FREQUENCY TO THE TWEETER.

CROSSOVER

THE CROSSOVER DIVIDES LOW FREQUENCIES FROM HIGH FREQUENCIES WITH STEEP ATTENUATION AND COMPLIMENTARY SLOPES, IN ORDER TO PROVIDE A SEAMLESS TRANSITION BETWEEN THE DRIVERS.

TWEETER

THE TWEETER IS OF THE SOFT DOME STYLE. IT USES A EUROPEAN DESIGN AND INCLUDES MAGNETIC COOLING FLUID FOR THE VOICE COIL.

DRIVERS

THE LOW AND HIGH FREQUENCY UNITS ARE DESIGNED TO COMPLIMENT EACH OTHER AND THE CABINET. THEY PRODUCE WIDE FREQUENCY RESPONSE WITHOUT RESONANCES OR DISTORTION IN A UNIFORM THREE DIMENSIONAL PATTERN.