 **STARK DESIGNS**

THE SOUND REPRODUCERS

In the Sound Reproducers, Stark Designs has attained the highest degree of refinement in bookshelf size loudspeaker systems. In these systems the entire audible frequency spectrum is divided into three distinct ranges.

The most critically important musical range is reproduced by one high accuracy midrange driver. This transducer exhibits optimum dispersion while maintaining high power handling and low distortion.

The high frequencies are reproduced by a high efficiency 1-inch hemispherical dome radiator. By housing this driver in the Directed Dispersion Unit, unprecedented flexibility in speaker placement becomes possible without sacrificing high frequency definition. The reproduction of these high frequency transients and musical overtones enriches the accurate program material delivered by the midrange.

Mid and high frequency drivers are matched by a sophisticated crossover network. These electronics incorporate circuitry for equalization of both drivers relative to the sound pressure levels of the low frequency drivers. Both midrange and tweeter levels can be individually adjusted to compensate for any differences in room acoustics or personal tastes.

The low frequency drivers used in the Sound Reproducers determine the difference in their overall performance. The 10-inch driver in the SR-1A reproduces low frequencies equally or better than most 12-inch drivers. For the SR-2A an exclusive 12-inch driver was developed. A much larger magnet structure is used in conjunction with a larger diameter voice coil for power handling potential seldom found in bookshelf size systems. Accurate reproduction at high energy levels of even the very deepest bass fundamentals is possible in the SR-2A.

THE SOUND ENERGIZERS

The Sound Energizers were conceived with the intention of creating the finest compact 2-way bookshelf speaker systems available. The same high efficiency dome tweeter found in our more expensive bookshelf systems is mounted in the exclusive Directed Dispersion Unit to provide unprecedented versatility in speaker placement.

In the SE-2A we employed the long-throw 10-inch woofer from our SR-1A. For the SE-1A a new 8-inch driver was developed with the same magnet structure and voice coil assembly which drive the 10-inch woofer. To achieve optimum performance from these low frequency drivers the enclosures were designed to meet critical interior volume requirements. The acoustic suspension principle was employed to maximize the tight, accurate bass response potential of each driver.

Finally, the components were carefully matched with a sophisticated crossover network specifically engineered for the Sound Energizers. This network utilizes the same high grade components and circuitry we use in all our electronics, including a four position equalization switch for user adjustment of the tweeter energy level relative to the woofer energy level.

The Sound Energizers have unusual power handling capabilities for speaker systems this size. Through the integrated design of the drivers, electronics, and enclosure, energy is efficiently transformed into accurate, undistorted acoustic output. To insure uncompromised performance and reliability, we use the same selection of materials, construction techniques, and quality control procedures practiced in our larger, more expensive systems.

THE SOUND DUPLICATORS

The Sound Duplicators were designed as economy versions of the Sound Energizers, using the same quality materials and craftsmanship. All models have oiled walnut veneer cabinets and acoustically transparent brown cloth grilles.

THE ELECTRONICS

To maintain the optimum characteristics of all drivers employed in each system, Stark Designs has taken an entirely new approach to crossover network design. Special circuitry in this network design minimizes both amplitude and phase distortion at the crossover points.

Saturation-free air core inductors, wound with 18 gauge wire minimize transient and harmonic distortion at all power levels. The dynamic tonal quality is virtually unaffected through the use of high grade electrolytic capacitors. These superior components guarantee long term stability and low power losses. Military-grade glass-epoxy printed circuit boards assure unit-to-unit reliability. All components have stringent tolerances and ample overload margins.

At the low crossover point in the Sound Reproducers a 6 dB/Octave slope assures accurate distribution of the audio signal to the proper drivers through the transition frequencies. At the high crossover point an 18 dB/Octave slope provides sharp roll-off characteristics which assure minimum overlap of transducer output.

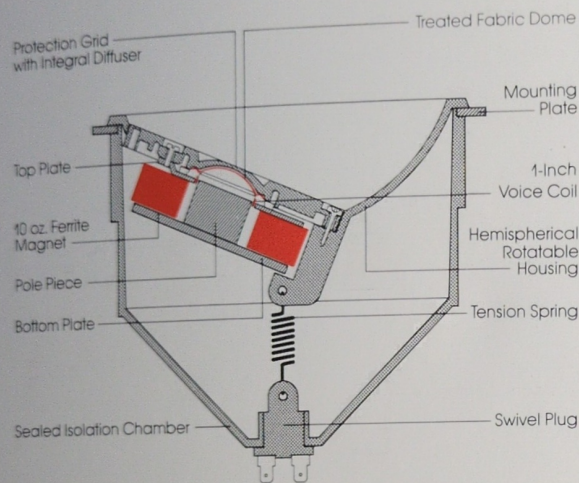
The Sound Energizers employ an unusual hybrid 6 dB/18 dB/Octave network to attain smooth response and high power handling. For unprecedented accuracy and control flexibility, the four position pushbutton switches allow level adjustments in discrete 3 dB increments. The electronic assemblies are mounted up front with amplifier-like control plates for maximum convenience and ease of installation and servicing.

THE DIRECTED DISPERSION UNIT

Dome drivers are used in all Stark Designs loudspeaker systems for reproduction of the mid and high frequency spectrums of the musical range. Dome radiator technology offers the highest power handling capacity, widest dispersion and greatest efficiency.

Our designers and engineers, being aware of the needed versatility to adapt a speaker system to today's listening environments, have developed a new concept in transducer application. With the goal of achieving a significant degree of control of dispersion patterns, we have accomplished precise localization of sound sources while retaining the natural ambience and overall presence of the program material.

After extensively testing and evaluating various types of high frequency drivers, a highly efficient



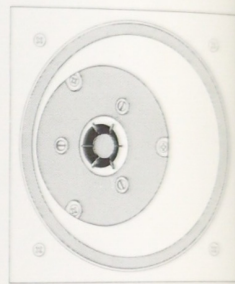
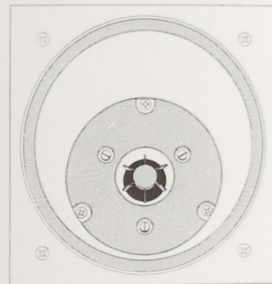
1-inch hemispherical dome radiator was selected for its excellent wide response and uniform energy level. This unit features a 1-inch treated textile dome and aluminum-silver, copper clad voice coil. These are aligned with the 1-pound magnetic assembly by a precision centering device. Uniform 120° dispersion is accomplished with the aid of a diffuser which is an integral part of the protection grid. The tangential surround aids in dissipating unwanted peaks. This dome radiator is mounted at a precisely determined angular offset in a concave hemispherical module. This module is mounted in its own isolation chamber which permits 360° rotation by the user. It is this electro-mechanical design configuration which met the parameters set forth by our engineers. We termed this unique development the Directed Dispersion Unit.

This revolutionary new device ends the dilemma of choosing between highly directional systems which limit dispersion and omnidirectional

Directed Dispersion Unit
Directed Up



Directed Dispersion Unit
Directed Right



THE SPECIFICATIONS

SYSTEM COMPONENTS

Low Frequency

Mid Frequency

High Frequency

ELECTRONIC NETWORK

Crossover Frequencies

Crossover Slopes

Equalization—in 3 dB Increments

By 4 Position Pushbutton Switches

SYSTEM CHARACTERISTICS

Frequency Response—Full Spectrum

Frequency Response—Critical Spectrum

Dispersion at 12000 Hz

Dispersion at 2500 Hz

Nominal Impedance

POWER CAPACITY

Recommended Amplifier Power

Continuous Program Power

Intermittent Program Power

DIMENSIONS AND WEIGHT

Height X Width X Depth (in)

Height X Width X Depth (cm)

Shipping Weight

SR-2A

12 in (30.5 cm) Cone

2 in (5.0 cm) Dome

1 in (2.5 cm) Dome

950 Hz and 3400 Hz

6 dB and 18 dB/Octave

Tweeter and Midrange

Level Controls

32 Hz-20 KHz \pm 3.5 dB

100 Hz-15 KHz \pm 2.0 dB

120° Adjustable

150° On Axis

8 Ohms

40 Watts RMS/Channel

70 Watts RMS/Channel

140 Watts RMS/Channel

24 X 15 X 13

61 X 38.1 X 33

50 lbs (23 kg)

SR-1A

10 in (25.4 cm) Cone

2 in (5.0 cm) Dome

1 in (2.5 cm) Dome

950 Hz and 3400 Hz

6 dB and 18 dB/Octave

Tweeter and Midrange

Level Controls

40 Hz-20 KHz \pm 3.5 dB

100 Hz-15 KHz \pm 2.0 dB

120° Adjustable

150° On Axis

8 Ohms

30 Watts RMS/Channel

50 Watts RMS/Channel

100 Watts RMS/Channel

24 X 15 X 11

61 X 38.1 X 27.9

44 lbs (20 kg)

SE-2A

10 in (25.4 cm) Cone

1 in (2.5 cm) Dome

1650 Hz

6 dB/18 dB/Octave

Tweeter

Level Control

40 Hz-20 KHz \pm 4.0 dB

100 Hz-15 KHz \pm 2.5 dB

120° Adjustable

8 Ohms

20 Watts RMS/Channel

40 Watts RMS/Channel

80 Watts RMS/Channel

24 X 13 X 11

61 X 33 X 27.9

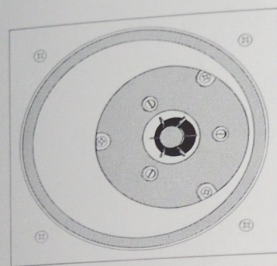
38 lbs (17 kg)

systems which limit definition. The Directed Dispersion Unit allows the user to choose the desired ratio of direct to reflected sound. Simply removing the grille provides easy access to the rotatable module. The high frequency dispersion pattern may be directed up, down, left, right or anywhere in between, allowing the user versatility never before offered in a bookshelf speaker system. The user will also find that he is not confined to any particular location in the listening area in order to have optimum balance and separation of program material.

It is this exclusive development along with the practical application of loudspeaker technology which results in uncompromised acoustical performance. The accurate acoustical matching of the Directed Dispersion Unit with our wide angle dispersion midrange transducer and non-directional low frequency drivers make possible an unusually linear energy response on or off axis with impressively low distortion.



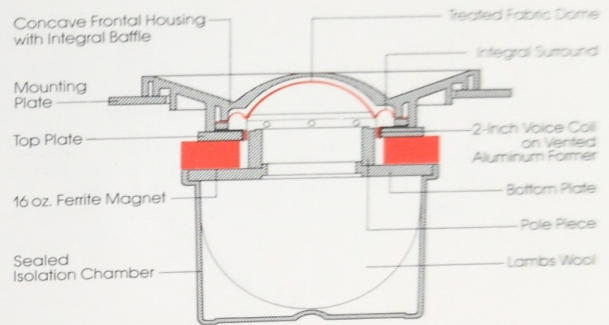
Directed Dispersion Unit Directed Left



THE 2-INCH DOME MIDRANGE

In the Sound Reproducers the most critically important musical range is reproduced by one high power, low distortion dome driver. Its 2-inch voice coil is precision wound on a vented aluminum voice coil former for rapid heat dissipation during sustained power application. A massive precision machined magnet structure drives this coil with unsurpassed efficiency and superb power handling.

The radiating surface is formed from a specially developed durable fabric treated with a flexible compound to insure no degradation in performance even after prolonged heavy loading. This transducer exhibits an excellent spherical radiation pattern unrestricted by the unique concave frontal housing with integral baffle which eliminates spurious radiation. This driver is acoustically suspended within its own sealed chamber. The output is critically damped through the resistive loading of lambs wool.



5E-1A

8 in (20.3 cm) Cone

1 in (2.5 cm) Dome

1650 Hz
6 dB/18 dB/Octave
Tweeter

Level Control

50 Hz-20 KHz \pm 4.0 dB
100 Hz-15 KHz \pm 2.5 dB
120° Adjustable

8 Ohms

20 Watts RMS/Channel
40 Watts RMS/Channel
80 Watts RMS/Channel

21 x 10 x 11
53.3 x 25.4 x 27.9
32 lbs (14.5 kg)

5D-2A

10 in (25.4 cm) Cone

1 in (2.5 cm) Dome

1950 Hz
6 dB/Octave

40 Hz-20 KHz \pm 4.5 dB
100 Hz-15 KHz \pm 3.0 dB
120° On Axis

8 Ohms

20 Watts RMS/Channel
40 Watts RMS/Channel
80 Watts RMS/Channel

18 x 13 x 11
45.7 x 33 x 27.9
28 lbs (12.7 kg)

5D-1A

8 in (20.3 cm) Cone

1 in (2.5 cm) Dome

1950 Hz
6 dB/Octave

50 Hz-20 KHz \pm 4.5 dB
100 Hz-15 KHz \pm 3.0 dB
120° On Axis

8 Ohms

20 Watts RMS/Channel
40 Watts RMS/Channel
80 Watts RMS/Channel

15 x 10 x 11
38.1 x 25.4 x 27.9
22 lbs (10 kg)

THE FIVE YEAR WARRANTY

Every Stark Designs loudspeaker system is fully warranted against defects in material and workmanship for a period of five years from the date of original purchase, regardless of change in ownership. This warranty provides for repair of the unit, including parts and labor at no charge to the customer.

The unit must be shipped, freight prepaid, or delivered to the factory in its original package or in a similar package affording an equal degree of protection. The unit should be fully insured by the sender. The return of the unit to the consumer will be paid for by the factory. Unauthorized repair or modification, abuse, or misuse, power input exceeding specified limits, accident, or alteration of the serial number will void this warranty.

Stark Designs reserves the right to modify or change the equipment, in whole or part, in order to include electrical or mechanical improvements, without incurring any liability to modify or change any equipment previously delivered, or to supply new equipment in accordance with earlier specifications.



