

RSL

3600

STUDIO MONITOR





RSL 3600 Studio Monitors in a Modern Recording Studio

THE DESIGN GOALS

The latest generation of RSL Studio Monitors are a result of continuous refinement since the first RSL Studio Monitor was introduced in 1971. A true 'studio monitor' must be widely used in the recording industry. In a studio, live performers are a side by side reference to the monitoring system. Through the monitors, record producers and engineers evaluate the entire costly process of producing a recording. Not only accuracy, but also the ability to play as loud as a live performance, frequently around the clock, is important. After the recording is mixed, it is played in various places such as recording company offices, master cutting rooms and radio stations. In all of these situations the speakers must not alter the balance of the mix. So, in addition to meeting the above criteria, the RSL 3600 Studio Monitor preserves the tonal balance produced by most of today's top recording studios whether or not they use RSL Studio Monitors. The RSL 3600 Studio Monitor will deliver the musical performance intended by the engineer.

Digital recordings are now available to the consumer. They can reproduce more of the power found in live music than albums, tapes or FM. The ideal speaker must be efficient as well as accurate and handle hundreds of watts in order to reproduce the power (dynamic range) found

on digital discs. This type of requirement has long been present in recording studios where RSL Studio Monitors have proven themselves.

The RSL 3600 Studio Monitor is categorized as a large 'bookshelf' in that it can be placed on a shelf or on a floor (with speaker stands, a recommended option). It's intended for medium to large-sized rooms. A cost-is-no-object approach was employed in the design of sound reproduction of the RSL 3600 Studio Monitor and its appearance. More important than a low price was that the RSL 3600 Studio Monitor owner regard it as an audio work-of-art to be treasured. The result is a powerful high definition speaker that will reveal the subtle differences in the sound of the finest recordings.

THE BASS RESPONSE

In order to reproduce the lowest bass frequencies efficiently, an enclosure with a large interior volume of 1.77 cubic feet is necessary to properly tune the 12-inch woofer. The fact that it can be placed on the floor or on a shelf allows optimum positioning of the midrange and tweeters. A tuned bass-reflex port is used to further extend the bass response of the system and increase the efficiency by utilizing the rear sound wave that comes off the back of the woofer cone. The tuned port also smoothes out resonance peaks.

THE WOOFER

The greatest power demand is put upon a low frequency driver. In the RSL 3600 Studio Monitor, its 12-inch woofer incorporates a massive 6½-pound magnet assembly and a 2-inch high temperature voice coil. This large magnet assembly allows the RSL 3600 Studio Monitor to maintain tight control of the bass at high power levels. The voice coil is wound on kapton, a new material which offers greater power handling and efficiency. The rigid, ribbed woofer cone has a treated cloth accordion edge for long, but controlled movements.

THE MIDRANGE

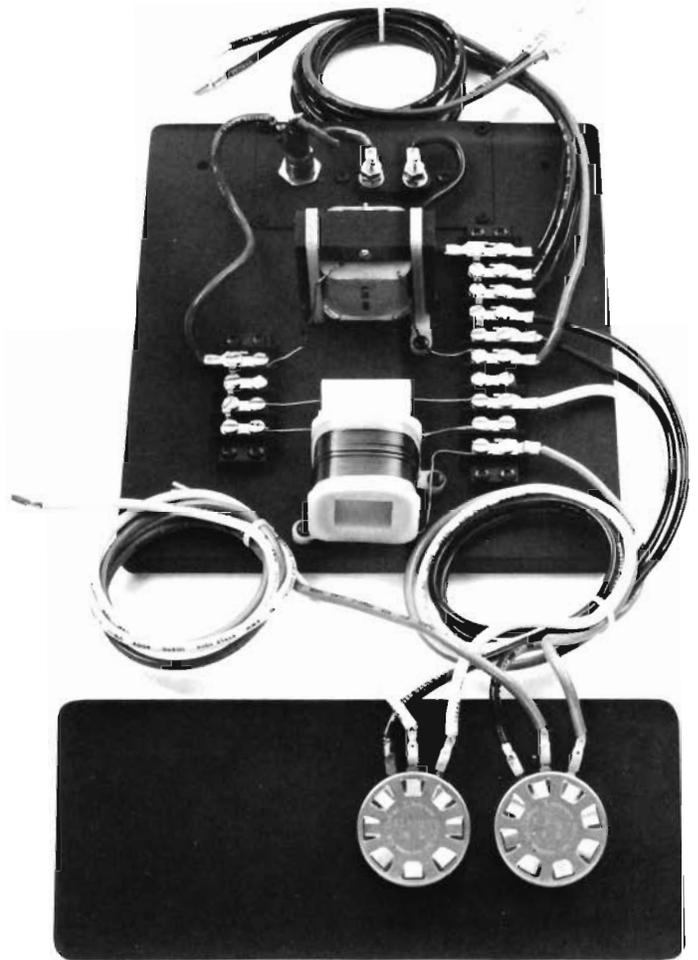
The best midrange format for efficient yet uncolored reproduction of voices and instruments is a cone. The cone of the RSL 3600 Studio Monitor 5-inch midrange is both light and stiff. If all areas of the cone do not move in unison, coloration and distortion is the result. A separate enclosure tunes out unwanted resonances and isolates the cone from the woofer. The ability to instantly respond to a sound impulse and handle large amounts of power is assured by a 1.5 pound magnet assembly and 1-inch high temperature voice coil.

THE TWEETER

The 1-inch dome tweeter used in the RSL 3600 Studio Monitor offers exceptionally high output with excellent dispersion characteristics. A vacuum-formed diaphragm is powered by a 1 pound magnet structure. A tweeter is the driver most responsible for the imaging of instruments and vocalists. Because of the tweeter in the RSL 3600 Studio Monitor, performers seem present in their proper position. A separate level control on the front of the speaker under the grille controls the brilliance. The tweeter is protected from high power damage by a solid state RSL tweeter protection circuit.



RSL 3600 Studio Monitor Components



RSL 3600 Studio Monitor Crossover Network

THE CROSSOVER NETWORK

The crossover network is the brains of the speaker system. It electronically divides the frequency spectrum and sends the appropriate signal to the speaker's drivers. What makes its design critical is that it must not add distortion or resonances. It must also cause the entire frequency range to arrive at the listeners ears at the exact same instant. The RSL 3600 Studio Monitor crossover features close tolerance mylar capacitors and saturation-free inductors wound with 18 gauge copper wire to eliminate distortion at all power levels. Fully adjustable high power wire-wound L-pads give full control of the midrange and tweeter output levels. This compensates for deficiencies in room acoustics and accommodates personal preferences. All of the wires in the RSL 3600 Studio Monitor are 10 gauge 'Monster Cable', a feature found only in some of the world's most expensive speakers. This special type of wire contributes to the quick audio reflexes and efficiency of the RSL 3600 Studio Monitor. Perfectly secure internal connections are made with junction blocks. For proper electrical connections, the RSL 3600 Studio Monitor is equipped with gold-plated 4-way binding post connectors that can accommodate the largest of speaker wires. Fuse protection, accessible from the rear helps to prevent accidental damage. All of the above are what makes the RSL 3600 Studio Monitor crossover network second to none.

THE ENCLOSURE

The enclosure is the area in which the woofer resonates. If it is not solidly built, it too will resonate adding distortion. Air leaks can degrade the tuning between the woofer and its enclosure resulting in distortion, loss of frequency response, lower power handling ability, and buzzes or rattles. The RSL 3600 Studio Monitor enclosure is 3/4-inches thick. Genuine oak or walnut is veneered to dense particle board. Also available is an ebony finish, popular in many studios and priced less than the walnut or oak versions. Carefully mitred joints assure perfect panel fit and airtightness. Interlocking panels further add to its strength. Thick acoustical material to dampen internal resonance and vibration is fully applied inside to all four sides and back. Furthermore, all drivers are well sealed with compressed foam gaskets. Almost all speaker manufacturers mount their drivers with wood screws. If a driver is removed and replaced during a repair, the screw can no longer hold a proper seal. To prevent this, the drivers in the RSL 3600 Studio Monitor are screwed into threaded metal inserts (an expensive process).

THE CABINET FINISH

The RSL 3600 Studio Monitor genuine oak and walnut enclosures are produced in the same factory as RSL Audio/Video Furniture. Strict attention is paid to the finish. First the complete cabinet is hand sanded. Then oil and stain is applied and rubbed in by hand. Finally the cabinet is waxed, also by hand. All that is required to maintain the finish is periodic application of a lemon oil (do not use spray wax). Matching RSL Audio/Video Furniture racks are available.

RSL 3600 STUDIO MONITOR BASIC SPECIFICATIONS

WOOFER	
Diameter	12 in (30 cm)
Magnet Structure	6.5 lbs (3 kg)
Voice Coil Diameter	2 in (5 cm)
MIDRANGE	
Diameter	5 in (12.7 cm)
Magnet Structure	1.5 lbs (680 gm)
Voice Coil Diameter	7/8 in (2.2 cm)
TWEETER	
Diameter	1 in (2.5 cm)
Magnet Structure	1.25 lbs (2.5 cm)
Voice Coil Diameter	1 in (2.5 cm)
ENCLOSURE	
Type	Bass-reflex, tuned port
ELECTRONIC NETWORK	
Crossover Frequencies	800 & 5000 Hz
Slope	6 dB/Octave
CHARACTERISTICS	
Frequency Response	35 Hz to 22 kHz
Efficiency*	87 dB
Nominal Impedance	8 Ohms
System Resonance	71 Hz
POWER CAPACITY	
Recommended Minimum	15 Watts RMS
Maximum Power**	200 Watts RMS
DIMENSIONS	
Height	25 in (63.6 cm)
Width	14.5 in (36.8 cm)
Depth	11.5 in (29.2 cm)
Shipping Weight	50 lbs (23 kg)
LIMITED WARRANTY***	
Parts and Labor	Five Years

*Measured with 1 Watt input, 1 kHz, 1 meter

**Note: Higher powered amplifiers may be used if care is taken not to operate the speakers at maximum amplifier power for extended periods of time.

***Read complete terms in our stores or on the back of the speaker. The RSL 3600 also carries a 7 day satisfaction or your money back guarantee.



The final accent to demonstrate the quality of the RSL 3600 Studio Monitor is a gold-plated nameplate.

RSL Speaker Systems products are available factory-direct through all Rogersound Labs stores.



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