

Von Schweikert Audio

World Class Reference Speaker Systems for Music and Film

LCR-15 Full-range Speaker System Instruction Manual

Thanks for purchasing the LCR-15 Center Channel Dialog speaker engineered by Von Schweikert Audio, the leaders in audiophile loudspeaker technology. This speaker may be used as either a full range speaker system in a conventional stereo music setup, or as a dedicated dialogue speaker in a Home Theater application. This universal design approach was facilitated by the use of special diaphragm materials providing the highest *Clarity Factor* available. Our composite woofer cone, fabricated from cellulose acetate pulp impregnated with mica substrate and damped with a carbon fiber/resin polymer, has a very high Youngs Modulus, or ratio of weight to rigidity. This permits the woofer/midrange drivers to deliver thundering bass response in combination with breathtaking vocal clarity and intelligibility. In addition, the liquid cooled composite silk/polymer resin dome tweeter can handle the dynamic range and volume levels necessary for thrilling realism without harshness or distortion. To enable the LCR-15 to be used vertically *or* horizontally, we have designed a GAIN (*Global Axis Integration Network*) crossover system that enables the system to achieve flat frequency response in either placement.

SETUP:

After unpacking the LCR-15, attach the supplied rubber squares under the unit to eliminate vibration between the speaker and shelf or TV. Since this speaker may be used vertically as well as horizontally, place the feet on the side you wish to use for the bottom.

VERTICAL PLACEMENT

To use the LCR-15 as a main speaker for music, great sound can be obtained by placing the speaker vertically. Place the cabinet so that the tweeter's VR letters face left; this is important as the woofer unit should be on the bottom, with the midbass/midrange unit at the top of the cabinet. The image and frequency response will be optimized when the tweeter is at ear level.

HORIZONTAL PLACEMENT

In the case of using one or three LCR-15 speakers in a home theater setup, including placement inside a wall unit or cabinet, the speakers may be placed in a horizontal position. Due to the *Global Axis Integration Network* crossover design, the radiation pattern is uniform in either case.

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MOUNTING INSIDE EQUIPMENT CABINET:

The LCR-15 was optimized for free standing or equipment cabinet mounting. Since the open cavity in the equipment cabinet will generate some resonance, place the speakers close to the front edge. Alternately, if the cabinet is enclosed with a door, remove the LCR-15's grill cover and fill the cavity surrounding the speaker with acoustic foam or fiberglass to eliminate the cavity resonance.

TIMBRE MATCHING:

Since the LCR-15 has been designed with "flat" (accurate) frequency response, it can be used with other brands of speakers if necessary.

LCR-15 SPECIFICATIONS

SYSTEM TYPE: Shielded three-way *full range* dialogue/general purpose speaker system. One woofer is used for bass only, while the second woofer is used for midbass and midrange frequencies. Can be mounted horizontally or vertically.

BASS LOADING: Aperiodic Pressure Release design using 100% stuffing density. Note that the vents are not bass reflex ports, but act as pressure release orifices. Can be placed inside a cabinet.

BASS DRIVERS: 2pc --5.5" heavy-duty bass/mids with cast frame, cellulose acetate pulp cones impregnated with mica substrate and damped with a carbon fiber/resin polymer, *Low Distortion Motor* system, butyl rubber surrounds, long throw spider, high temperature voice coil and magnetic shielding. This new driver design has a very natural sound quality with inaudible coloration or distortion.

TWEETER: 1" - composite silk/polymer resin dome with Ferrofluid liquid cooling, high temperature voice coil, *Low Distortion Motor* design, and magnetic shielding. This tweeter is very musical, without harshness, even at high volume levels that would cause "standard" tweeters to fail.

CROSSOVER: *Global Axis Integration Network* (synthesized steep-filters with phase-consistent behavior) with 300 Hz and 2.2 kHz crossover points. This crossover design has been engineered to radiate sound in a wide "bubble" instead of a "beam," so that phase and frequency response does not radically change off-axis. The finest parts have been hand selected, including polypropylene capacitors and premium air core inductors.

BINDING POSTS: High quality "audiophile" five-way binding posts with rhodium plating.

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FREQUENCY RESPONSE: Baffled mounting (inside equipment cabinet): 32 Hz-20 kHz; (free air: 60 Hz-20 kHz +/- 2dB).

SENSITIVITY: 88 dB @ one watt/one meter anechoic, 91 dB measured in room with boundary gain.

POWER HANDLING: 8 watts min., 200 watts peak.

IMPEDANCE: 8 ohms nominal (7 ohm minimum, 19 ohms maximum). SET friendly!

WARRANTY: Ten years parts and labor, excluding abuse such as burnt voice coils.

WEIGHT: 28 lbs packed for shipping, 20 lbs raw.

DIMENSIONS: 17.5" Wide x 10.25" Deep x 7.5" High (horizontally placed).