

Noble Fidelity L-55

LCRS In-Wall Loudspeakers

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Introduction

In its simplest form, a loudspeaker is a motor, a device that converts electrical energy into acoustic energy, or air motion, and thus sound. The basic principles of loudspeaker design remain unchanged since the loudspeaker was invented over a century ago, although significant advances in materials and manufacturing processes have vastly improved their sound quality and performance. Adhering to basic design principles always produces the best products, and one of the clearest examples is the Noble Fidelity line of in-wall and in-ceiling loudspeakers.

Noble Fidelity may not score high in a top-of-mind brand-awareness poll, but a demonstration of the L-55 LCRS loudspeakers will quickly convince you that they offer excellent performance and real value. The L-55 LCRS is a rectangular in-wall loudspeaker from their Attaché Series of loudspeakers designed for use in all channels of a home theatre system. At \$329 each, the L-55 has performance features and sound quality typically found in loudspeakers costing much more.

Back-To-Basics Design

Everything about the L-55 suggests a back-to-basics design approach. The quality of an in-wall loudspeaker starts with a solid, secure mounting system. The L-55 LCRS loudspeakers employ a two-piece bracket assembly that clamps the loudspeaker to the front and back of the drywall, around the entire perimeter of the loudspeaker, ensuring solid contact with the

wall, thus reducing potential wall rattles and vibrations. The L-55 can be installed vertically or horizontally, and either way will fit in a standard residential wall with 16-inch on-center stud spacing. Flexible placement allows the same loudspeaker to be used in all channels of a home theatre system, ensuring a timbre-matched surround sound system.

The next important consideration is how the loudspeaker interacts with the wall cavity behind the loudspeaker. The performance of an in-wall loudspeaker can vary due to the volume of the wall cavity in which it is installed. Some manufacturers include a sealed enclosure, like that in a floorstanding loudspeaker. Noble Fidelity tunes the drivers for the volume of a typical residential wall, usually between 3 and 4.5 cubic feet. As Noble Fidelity's Web site says, "It's simply a matter of physics."

The L-55 uses dual long-throw 5.25-inch Kevlar™ drivers with butyl surrounds, accompanied by a pole plug designed for phase-coherent midrange dispersion. The Tetoron™ 1-inch soft-dome tweeter is mounted between the woofers in a D'Appolito driver pattern for consistent performance on- and off-axis in both vertical and horizontal directions.

Another design consideration is wave diffraction, which, if not controlled, can lead to phase incoherency and disruption of early reflections. To reduce wave diffraction, Noble Fidelity uses a ribbed baffle for reduced near-field diffraction, a phase pole plug for midrange frequencies, and a hemispherical dome tweeter that does not rely on an acoustic "lens" to achieve its 160-degree wide dispersion characteristics.

The L-55 frame and grille is available in a standard white finish, but you can purchase an optional black grille and frame so they

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General

Frequency Response: 45 Hz - 21 kHz
 Sensitivity: 91 dB SPL (2.83V, 1m)
 Nominal Impedance: 8 ohms
 Recommended amplifier power: 5 - 175 watts
 Dimensions (WHD in inches): 15-3/4 x 9 x 3-1/2
 Cutout dimensions: 14-7/16" x 7-7/8"
 Weight (In pounds): 9.7 each
 Warranty: Lifetime limited warranty
 Price: \$329.00 each

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won't be visible when installed in a dark theatre room—a nice touch, and no painting is necessary.

Other features include two three-position switches for midrange and high-frequency level adjustment, magnetic shielding for placement close to a monitor, and the baffle has provisions for mounting an infrared receiver.

RoHS Compliance

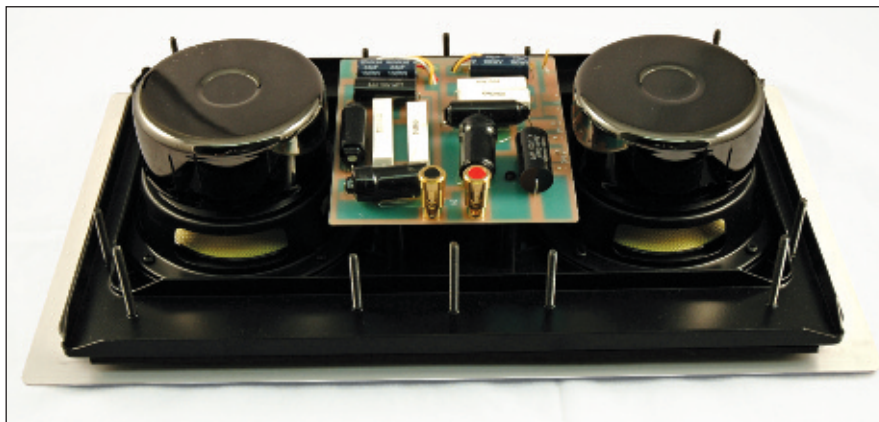
RoHS (Restriction of Hazardous Substances) is a directive restricting the levels of certain hazardous chemicals in electronic devices. It includes chemicals such as lead, mercury, cadmium, and other hazardous materials used in crossovers and other electronic components. Many of these substances end up in our water supply, and the RoHS program is designed to limit their use and disposal. You'll likely be hearing more about this program from governments and manufacturers, as the green movement gains momentum. According to their Web site, **Noble Fidelity is the first loudspeaker manufacturer in North America to be RoHS compliant**, something to consider when making a purchase. I am far from an environmental activist, but I strongly support rational efforts to protect the environment, and I enjoy drinking water that is free of hazardous chemicals, so RoHS compliance seems likely to generate significant consumer interest.

Audio Performance

After letting the loudspeakers play for a few hours, I sat down to listen. **I tested two of the Noble Fidelity L-55 LCRS loudspeakers in my system and noticed immediately that they had noticeably open and clean-sounding midrange and vocal characteristics, focused center imaging, and uncolored sound qualities.**

Anjani's sultry vocals in "No One After You" (*Blue Alert* CD, Columbia Records) sounded exceptionally clean and crisp, with a clearly defined center image. Her voice had excellent detail with a clear in-room presence and, in fact, every vocalist I listened to sounded very open and unveiled. The midrange and high-frequency acoustic compensation switches on the L-55s are very useful. They sounded best in my system with the HF switch in the "+" position and the midrange control set to "-", likely due to the acoustic treatments in my listening room.

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The piano in Ana Caram's "Anos Dourados" from her *Rio After Dark* disc (Chesky Records) sounded very natural, with quick transient response. The L-55s roll off at about 45 Hz, but sounded full, even without a subwoofer, and had tight mid-bass

response. The L-55s had very wide off-axis horizontal dispersion, ideal for a home theatre with multiple listening positions. The company's slogan "Live with Music" is appropriate—the **L-55s are easy to listen to for long periods, with all genres of music.**

Summary

At \$329 each, the Noble Fidelity L-55 LCRS offer a very high cost versus performance value. From the mounting

system to the drivers, crossovers, and other acoustic features, you would be hard pressed to find a loudspeaker that competes with them in the same price range. The L-55 LCRS loudspeakers would make a good choice for a moderately priced home theatre system,

and when combined with a subwoofer they are efficient enough to be driven by a 100-watt-per-channel amplifier or receiver.

You won't find Noble Fidelity in-wall loudspeakers on the shelf at your local big-box retailer. The company relies on qualified system integrators and custom installers to represent and vend their products. Although I'm

not a system integrator, I suspect that many of their installing dealers are offering Noble Fidelity to many of their customers because of their high value and excellent sound quality. For more specific information about Noble Fidelity loudspeakers and RoHS compliance, visit their Web site. **WSR**