



Product Parameters and Specifications
Model: Legatia L61-2 Two-Way Component Set

Legatia™ L61-2

The Legatia™ L61-2 is an exciting two-way component set which boasts a pair of 7.1-inch (O.D.) Legatia™ L6 midbass drivers, and a pair of Legatia™ L1V2 20mm soft-dome tweeters. The Legatia™ L61-2x is the version of this set which includes a passive crossover system: the option of a high-quality pair of two-way crossovers, constructed using only the very finest, carefully selected components. Like the L31-2 and L41-2 sets, the L61-2 set once again utilizes the natural-sounding Legatia™ L1V2 tweeters, to cover the broad spectrum of tones above 5,000 Hz. The L1V2 tweeter is perfectly suited in this capacity with its wide-bandwidth operation, and tonally correct character. The midbass for this set is our awesome Legatia™ L6 wide-bandwidth midbass/midrange driver, for the ultimate two-way component system package. Like its smaller sibling the Legatia™ L4, the Legatia™ L6 midbass/midrange is a wide-bandwidth transducer that effectively reproduces tones exceeding six complete octaves, without noticeable cone breakup. For many users, the low frequency extension of the L6, combined with the wide bandwidth design of each driver, makes the Legatia L61-2 set all you may need to reach sonic nirvana in your car without a dedicated subwoofer system.



Photo 1: L61-2 two-way component set. Tweeter is also available in brushed aluminum.

Legatia™ L61-2 in more detail

The Legatia™ L61-2 is the ultimate two-way system that uses a combination of the Legatia™ L1V2 20mm soft dome tweeter and the incredible Legatia™ L6 large format 7.1-inch midbass. Like the Legatia™ L631-3 three-way component set, the Legatia™ L61-2 has an optional passive crossover system, with a cross point at 5,000 Hz, with three levels of tweeter attenuation (this systems is known as the L61-2x). The Legatia™ L61-2 is an exceptional performer, and provides the performance of sets costing four- and six times as much!



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Tweeter

The Legatia™ L1V2 is a 20mm (3/4-inch) dome-type tweeter which has a very good linear response and exceptional transient response. The design offers a wide dispersion pattern to make for flexible installation and speaker location, and the phase linearity of the design ensures phase coherent imaging and staging cues in the car audiophile system.

The L1V2 starts with an impregnated fine cloth silk dome diaphragm for a linear, smooth sound, with a treated silk surround to damp edge modes and resonances. The L1V2 is efficient, exhibits low distortion, and has a wide dispersion; the dome is of exceptionally low mass and has an extremely high power handling with the recommended filtering, or using the available two-way passive crossover system for the L31-2x component system. The L1V2 dome design is much less susceptible to mechanical deformation than other designs, and yet yields a smooth response over the extent of its range.

For more information about the L1V2 tweeter, please visit here: <http://hybrid-audio.com/Legatia%20L1V2.pdf>.

Midbass/Midrange

The Legatia™ L6 is a 181mm (7.1-inch) large format wide-bandwidth midbass/midrange driver to compliment this two-way system design. The Legatia™ L6 is a cone-type driver consisting of a pressed paper diaphragm with extremely low moving mass. The cone has been treated with a water resistant element for door mounting, and other areas prone to occasional contact with water. The cone design offers a wide dispersion pattern to make for flexible installation and speaker location. The L6 comes equipped with a phase plug pole piece extension at the center of the cone. The highest frequencies of audio emanate from the area around the center of the cone and the lower frequencies are produced by the area of the cone that is farther from the center. Due to the shape of a conventional loudspeaker cone, the higher frequency sound waves tend to collide at a focal point, causing phase distortion. The phase plug pole piece extension improves the L6's performance and clarity by deflecting delicate midrange tones forward of the driver, while minimizing distortion and improving the driver's ability to reproduce a wider bandwidth; this is the reason why the L6 has an extremely wide bandwidth into the upper midrange frequencies. The wide-bandwidth operation of the L6 is why this set is so very good a performer.

Like other Legatia midrange designs, you will find no composite or metal cone materials used on the L6, as our approach to point-sourcing is to allow the midrange or midbass driver to effectively play into upper midrange and lower treble frequencies. The paper cone is critical to tame unwanted cone modes, resonances, and the classic "cone breakup" associated with all composite and most polypropylene cones, but still be rigid enough for midbass and upper subbass attack. The "point source" design ensures stable stereo imaging across the fundamental frequencies which define image placement and definition.

Rounding out the face of the driver is an inverted high-loss rubber surround that, in concert with the spider, provides the compliance needed for the L6 midbass to adequately present a real sense of "bass up front" in this two-way front stage system.

The basket is a high-quality cast aluminum design, and contains a 181mm wide flange providing for the mounting of the driver via four screw holes (the use of 4mm cap head screws is ideal). The overall dimensions of the driver are very amenable for use in the car audio environment, boasting a depth of just 81.5mm for the ultimate in mounting flexibility. The terminations are



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5-way binding posts which have been gold plated to optimize contact, and give the end user flexibility in tinned wire or binding post terminations.

Mechanical and electrical parameters are amenable to a variety of different installations and speaker locations. The high Qts and low Mms of the driver will allow it to be used in a purely infinite baffle configuration. Hybrid Audio and select Team Hybrids competitors have also had great success using this driver in a dipole configuration, a.k.a. completely "free-air", in larger vented enclosures, arrays, and in folded horns and transmission lines. It is important to note that sealed enclosures are not required; in fact, the L6 works optimally in areas where a large volume of area is available, such as in kick panel, floor boards, or foot wells, underneath dashboards, etc. You do not have to build enclosures for these speakers to perform as intended; a simple baffle secured to the car's chassis with available airspace at the rear of the baffle is all that is required; this driver quickly solves the universal installation quandary of having to build enclosures for car stereo speakers. Finally, the size of the unit allows it to be mounted in typical locations within a vehicle, including kick panels, floor boards, door panels, and in some cases custom dashboard locations, as long as there is adequate airspace behind the driver to allow it to maintain proper damping and acoustic suspension.

The Legatia™ L6 is the ideal multi-purpose high-end speaker driver. At home in virtually any arrangement, the L6 is Hybrid Audio's flagship midbass driver, boasting exceptional performance and a design philosophy that goes hand in hand with foolproof high-end audio.

Summary

The Legatia™ 61-2 is going to be by far the best sounding two-way component set you'll hear in this price point, and perhaps irrespective of price point. The wide-bandwidth L6 midbass/midrange is an amazing performer in the critical bandwidth from 50 Hz - 5,000 Hz, and in concert with the L1V2 tweeter, represents a stunning achievement in dedicated two-way front stage systems. The midbass is authoritative, and the treble is smooth and warm. This set really is that good.