

## Legatia™ L8

The Legatia™ L8 is a triumph for Hybrid Audio, as we once again bring a product to the market that is needed and desired by enthusiasts, competitors, and installers. We can't tell you how many times we've been asked to build a large format 8-inch infinite baffle subwoofer...so here it is! Feast your eyes on the newest product within the Legatia™ series, the L8 infinite baffle subwoofer.

The L8 was specifically built to give an up-front subwoofer option for doors, floor boards, and kick panels. We designed this driver so that, in the right installation, there would be no necessity for additional, larger subwoofers in an audiophile system played at reference levels. The Legatia™ L8 subwoofer has a slightly more limited bandwidth than that of its sibling L6, but that's because we wanted to extract as much subbass performance out of this design as possible. In a car environment, a pair of L8's will fill the cabin with subbass, if installed properly!



Photo 1: L8 subwoofer.

## Legatia™ L8 in more detail

The Legatia™ L8 is a 215mm (8.5-inch) subwoofer/midwoofer driver to compliment a dedicated three-way or four-way front stage system design. Like the Legatia™ L6 midbass, the Legatia™ L8 is a cone-type driver consisting of a treated pressed paper diaphragm with low moving mass for fast, transient response. The cone design offers a wide dispersion pattern to make for flexible installation and speaker location. However, because of this driver's specific design function as a subwoofer and midwoofer in expanded three- and four-way designs, its bandwidth was purposely left more limited than that of its smaller siblings. However, some may endeavor to incorporate the L8 into a strict two-way design with a large-format tweeter placed close to the same location as the L8, or used in concert with the wide-bandwidth L4 midrange.

Like other Legatia™ midrange and midbass designs, you will find no composite or metal cone materials used on the L8. The purpose for this design philosophy is to ensure a light moving mass cone, and optimized Qms for door, floor-board, and kick panel mounting, to ensure subbass extension without the need for a sealed enclosure. The light cone further helps to make the L8 a transiently "fast" driver which accurately reproduces complex musical passages with ease.

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 L8 subwoofer to adequately and

authoritatively present a real sense of “bass up front” in three-way front stage systems, or the front-stage midbass reinforcement to a dedicated subwoofer system. Additionally, the L8 lends itself well in the role as the dedicated subwoofer for trunk mounting/rear deck, rear quarter panels, etc. in three- and four-way systems.

The basket is a high-quality cast aluminum design, and contains a 215mm 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 92mm for the ultimate in mounting flexibility. The terminations are 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 larger vented enclosures, folded horns and transmission lines. It is important to note that sealed enclosures are not required; in fact, the L8 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 attached 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, and door panels, as long as there is adequate airspace behind the driver to allow it to maintain proper damping and acoustic suspension.

The Legatia™ L8 is precisely what the car audiophile wants in a small format subwoofer driver, that is small enough to place virtually anywhere, but robust enough for the most discerning bass aficionados. At home in virtually any arrangement, the L8 is Hybrid Audio’s flagship subwoofer driver, boasting exceptional performance and a design philosophy that goes hand in hand with true high-fidelity playback.



Product Parameters and Specifications  
Model: Legatia L8 Subwoofer/Midwoofer

**Legatia™ L8 Thiele-Small Parameters**

Overall diameter:	215mm (8.5-inch)
Mounting depth:	92mm
Bolt Circle Diameter:	195mm
Mounting hole:	185mm
P <sub>nom</sub> (without crossover)	75W (AES Standard)
P <sub>max</sub> (without crossover):	150W
P <sub>max</sub> (with recommended crossover):	250W
Frequency range:	40Hz - 2,000 Hz
Sensitivity:	87dB (2.83V/1m)
Mms:	31.5g
Cms:	454 um/N
BL:	5.99 T*m
Voice coil diameter:	35.55mm (1.4-inch)
Impedance:	4 Ohm
DC Resistance:	3.4 Ohm
Fs:	40Hz (free air)
Qms:	7.35
Qes:	0.693
Qts:	0.765
Xmax:	8.5mm (one way)
Vas:	26L
Sd:	0.02 m <sup>2</sup>

### Legatia™ L8 Impedance and SPL Verses Frequency Plots

