

Morel Diadem 3-Way Speaker Kit - Parts Only - PAIR

[Diadem Crossover PDF](#)

[Diadem Cabinet Drawing PDF](#)

Brand-new 3-Way Floorstanding Kit developed by Morel! 92 dB, nominal 6 ohm load

The Diadem features two [MW1054](#) woofers in series, with huge 5.1" voice coil, double inside magnet assembly, and woven carbon fiber/paper laminate cone. Morel's [TSCM634](#) Titanium Supreme Coppersleeve. Huge 3" Hexatech™ aluminum underhung voice coils (that use hexagonal shaped wire for high sensitivity and power handling) are wound onto titanium bobbins for amazingly low energy storage, resulting in lightning quick transients for superior attack and decay transients.

Tweeter is the Titanium Supreme [TSCT1104](#). Made from 100% aluminium wire shaped like a honeycomb, the Hexatech™ voice coil reduces air gaps in the coil windings, thereby increasing efficiency by up to 20%. Being lightweight, Hexatech™ voice coils are largely responsible for the extraordinary, fast-transient response for which Morel drive units are known.

- Morel woven-fiber woofers provide a robust and well defined bottom-end, complemented by the superb carbon-fiber midrange and exceptional tweeter.
- Morel drivers tend to be very accurate and smooth acoustically with exceptional power handling and are often considered non-fatiguing compared to other similar speakers.
- The mid and tweeter feature titanium voice coil formers which are extremely light and rigid. These high-tech formers act as a heat sink to disperse heat away from the tweeter voice coil during loud dynamic changes in program material.

This kit includes:

(4) Morel [MW1054](#) Woofers

(2) Morel [TSCM634](#) Midranges

(2) Morel [TSCT1104](#) Tweeters

(2) Fully Assembled Premium Diadem Kit Crossovers, assembled on 2x DoubleMatrix and 1x Matrix board per channel

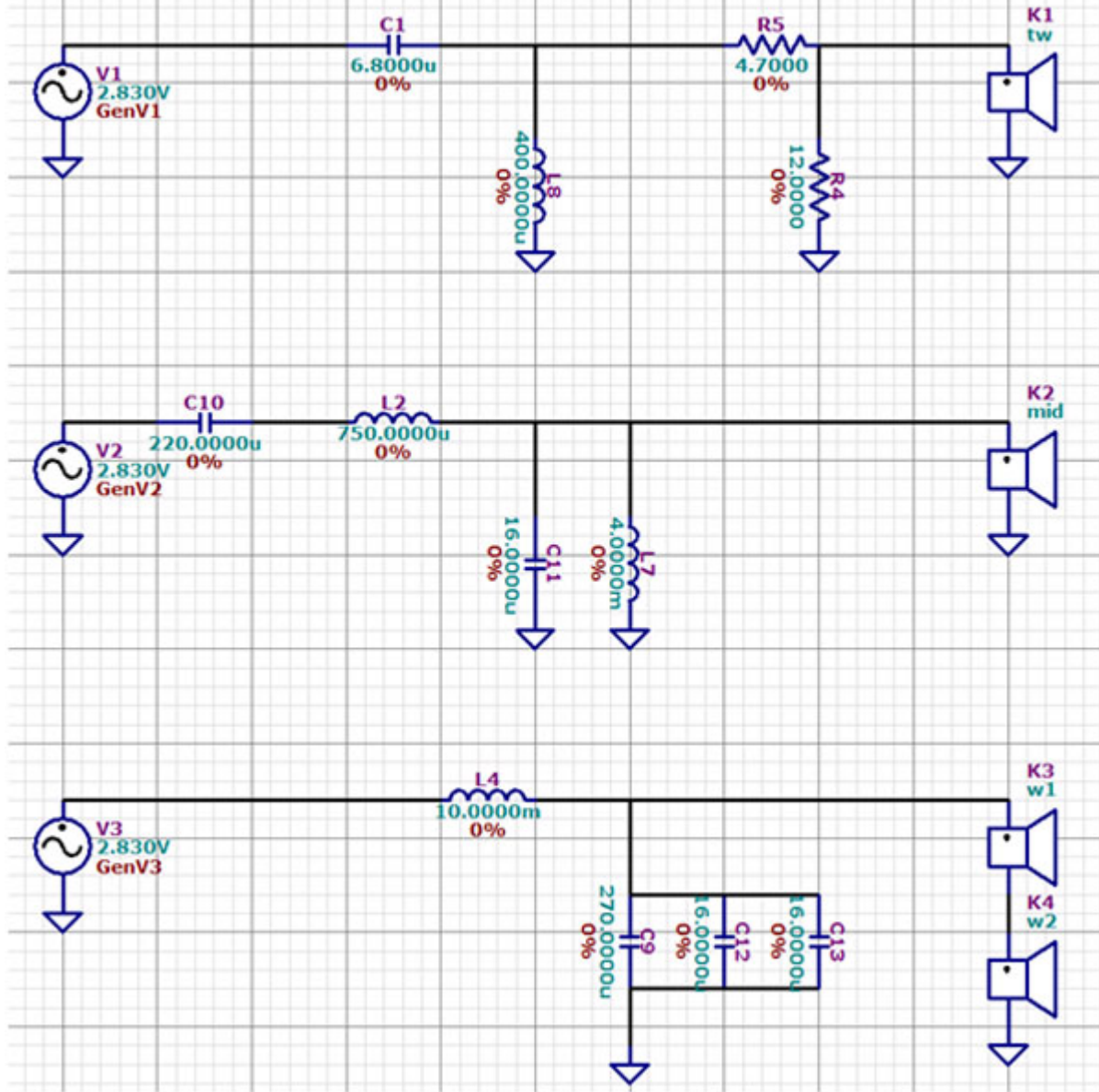
Price includes a 10% discount on all drivers.

The frequency response of this speaker is perfectly linear. At low volume, i.e. 85 dB at 1m, the nonlinear distortions are below 0.5% above 400 Hz and doesn't exceed 1% at 95dB at 1 m between 300 and 15000 Hz.

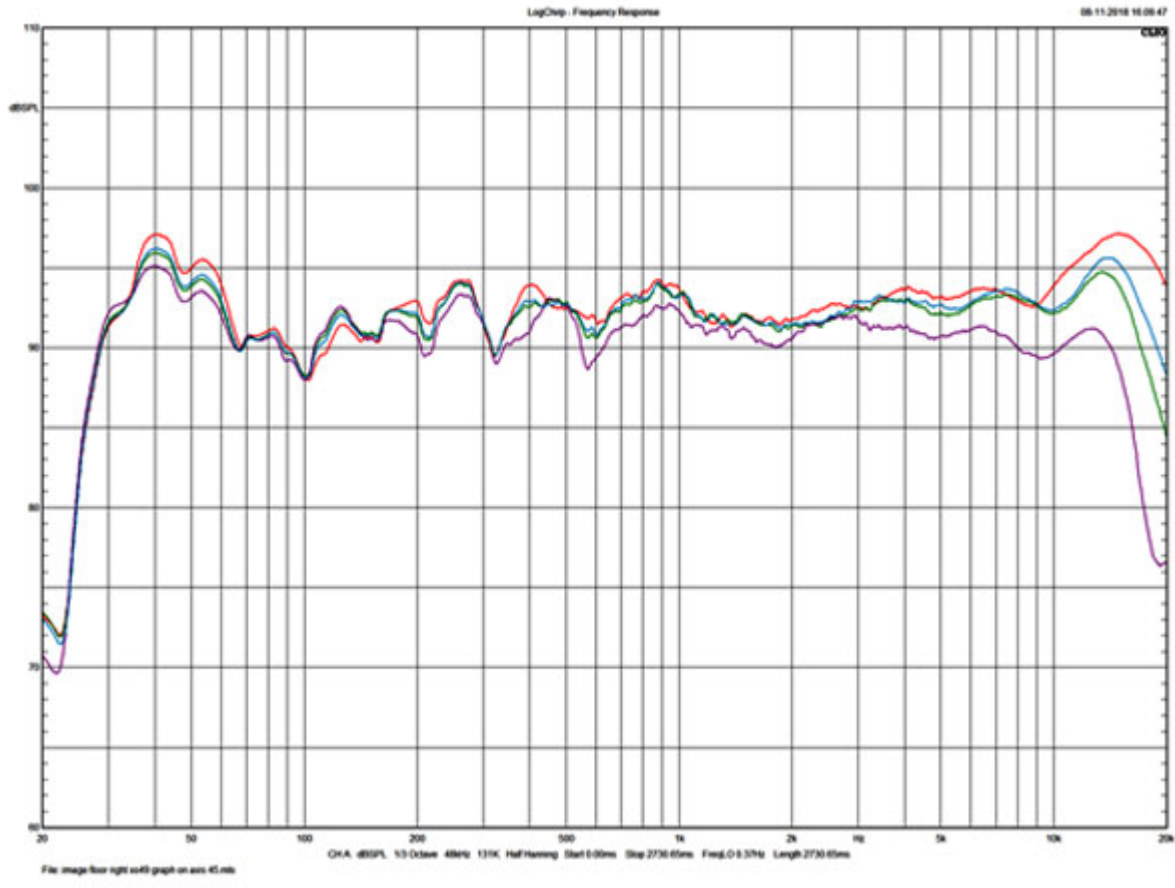
Madisound is building the Diadem crossovers custom to order with Mundorf MCap Supreme high-pass on the tweeter, and Mundorf EVO-Oil on the midrange. The series inductor on the midrange is a Goertz Copper Foil and 15awg Steel Laminate on the woofer. Relatively simple network for a three-way, indicating the drivers are a strong match acoustically. Due to component size, two DoubleMatrix and one Matrix board are required per channel.

- 2nd order high-pass filter (12 dB per octave slope) for the tweeter.
- Band pass consisting of a 2nd order high pass filter (12 dB per octave slope) and a 3rd order low-pass filter (18 dB per octave slope) for the mid-woofer.
- 2nd order low-pass filter (12 dB per octave slope) for the woofers.
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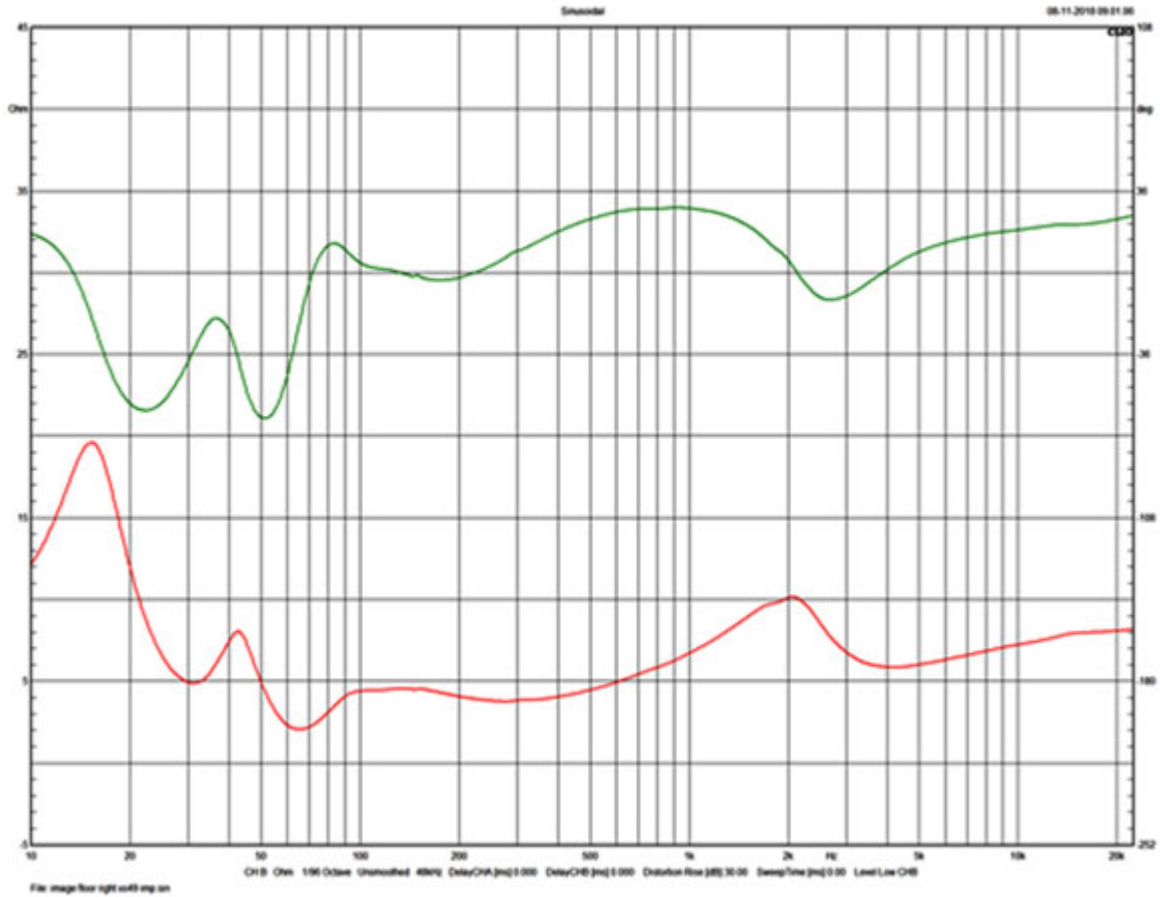
IMAGE 3-WAY SPEAKER



On/off axis measurements CLIO 12: measured with logchirp, 2.83v input. 0.5m when microphone pointing at center tweeter, no time window, 1/3 smoothing was applied.



Impedance measurements CLIO 12: measured with logchirp, 1.0v input



Cabinet design considerations

- Port:L-100mm D-88mm

Mid box: 150gr damping

Woofers box: damping on the internal sides

- The connection between the cabinet front plate and cabinet itself needs to be sealed, to avoid air release- must be air sealed.

Cabinet Drawing- metric



make all drivers
holes 2mm
diameters

