

Morel

Ovation Dotech-6 Speaker System



Based in Israel, Morel is a company quickly becoming a major player in high-end car audio, and the Ovation Dotech-6 system is one of the many reasons why. Some of the technologies and design developed for Morel's renowned home hi-fi speakers have been worked into this system. The Morel Dotech-6 is up against some pretty stiff competition in the autosound marketplace, but only a handful of other companies match the impressive sound quality or stylish looks of Morel's latest offering.

DESIGN

The Morel Dotech-6 system is based on a 165mm (6.5-inch) mid-woofer, a 28mm (1.1-inch) dome tweeter, and a separate crossover network.

Overall construction is very tidy, and the midbass driver is built on a grey punched-steel chassis with 15 holes and notches around the rim, which also encloses the unusual magnet structure. Concealed within the chassis are dual 50mm ceramic magnets, mounted inside the 54mm (2.1-inch) 4-ohm voice coil. Up front, a speckled-grey composite paper cone is carried on a soft, skinny, NBR (nitrile) edge. Completing the facade is a 62mm (2.4-inch) damped cloth dustcap with the Morel logo splashed across it, but no front gasket. Behind the composite cone is a very narrow, deep-roll spider, providing good centering and allowing plenty of excursion. Gold-plated terminals ensure there are no corrosion problems in damp car-door applications, and the unit needs 64mm (2.5 inches) of mounting

Testing by
Howard Doctor
Photos by
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depth, and about 15mm (0.6-inch) of clearance in front of the panel.

Like many previous Morel products, the Dotech-6 system includes very stylish woofer grilles, with large open holes in place of the usual fine steel mesh. Sadly, the Morel grilles do not permit convenient coaxial mounting of the tweeter, as we initially thought they would, although any smart installer can fix that situation within a few minutes.

The treble range is handsomely covered by a Morel MT12 28mm silk dome tweeter, with a neodymium magnet. It comes with a whole mass of hardware to cover flush mounting and pod mounting at two different angles. The hardware is self explanatory, but when the tweeter is 'flush' mounted, it still protrudes about 13mm (0.5-inch) in front of the panel, including its metal grille.

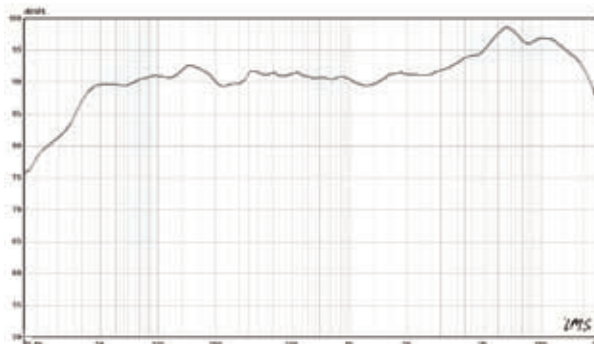
While speaker systems in this price-class always include crossovers, very few include anything as elegant as the Morel networks. These unusual shaped modules filter the midwoofer at 6dB per octave, and the tweeter at 12dB, and include a selector (accessed by popping out one of the plastic windows) for output levels of +3dB, 0dB, and -3dB. While very stylish, the crossover doesn't include a PTC, light bulb or other protection device, and is not bi-ampable.

MAKING SOME NOISE

Installation of the midwoofers was simple, and once we decided on the 30-degree angle mount for the tweeters, we found the supplied kit of hardware had everything we needed to do the job right. Finding a hiding spot for the crossovers proved a bit more challenging, so we resorted to the old 'bubble-wrap-bag' insulation technique and stashed them inside the doors. On the test bench we ran the midwoofer and tweeter with 'normal' polarity, but in the car, separated by 600mm (24 inches), the tweeter polarity needed to be reversed to give the smoothest response between 1kHz and 5kHz. We did most of our listening to the Morel Dotech-6 system without a subwoofer, simulating a typical factory-speaker upgrade installation.

PERFORMANCE

These are lovely sounding speakers, and while our lab measurement (see graph) shows a rise at the upper end of the curve, the sound was much smoother than the graph suggests. With the tweeter attenuator set at -3dB, the balance is at its most natural, and the extra energy around 10kHz adds some clarity without being aggressive. Through the midrange, where most of the music is, the sound was smooth and articulate, both with spoken word and more complex program material. The bottom end of the Morel Dotech-6 system depends heavily on the enclosure size, and our lab enclosure produced useful output down to 40Hz. When mounted in a typical car door, the response extends to about 70Hz; still a very impressive result. The components >>>





integrated superbly, contributing to the great sense of “space” around vocalists, and the crossover point was difficult to pinpoint. With the tweeter attenuator set at +3dB, it developed a crisp ‘bite’ that some listeners may love but we found a little less attractive.

When we added a subwoofer and filtered the Morel system at 100 Hz (24dB per octave), it went noticeably louder before distortion, with even more dramatic dynamics. Relieved of the burden of generating deep bass, they sound even more natural and the detail in the lower midrange is improved just a tad. Our stereo image was rock-solid and stable, never wandering, even with our trickiest solo piano tracks.

The Morel Dotech-6s made it through our brutal Sisters of Mercy maximum output test, but while there was no serious danger of damaging them, it was clear that playing really loud is not what they do best.

CONCLUSION

Morel’s hi-fi heritage is clearly evident in their Ovation Dotech-6 system, which ranks amongst the most appealing speakers at, or even near, their price range. If you seek to build a high-end system with solid sound quality, the Morel Ovation Dotech-6 is clearly worth consideration. **PAS**

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THE SOURCE

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