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SPECTACULAR.

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AUDIOPHILE

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Studio/40



There are a number of stereo manufacturers in Canada, but only a few release products that could be classed as exceptional. While many spend heavily on getting customers to notice them, by contrast, the modest Canadian manufacturer, Paradigm, appears to spend its money on research and development. Prior to this review, I thought Paradigm’s niche was manufacturing “basic” speakers so I didn’t pay them much attention. After listening to the newly released Studio/40 I’ve changed my mind. The capabilities of this speaker reflect a company that is more than ready (and more than capable) of taking over a good portion of the high-end stereo market.

DESIGN AND MANUFACTURING

Paradigm produces a range of speakers, divided by price into three series – the budget-priced Performance Series, the mid-priced Monitor Series and the high-end Paradigm® Reference line. The Studio speakers, five in total, belong to the

Reference line. The smallest is the 2-way, 2-driver Studio/20, the largest is the 3-way, 4-driver Studio/100. The Studio/40 is the middle of the line-up. Since the design and materials used in drivers, crossovers and enclosures throughout this series are similar, we gained insight into the entire line-up.

Although Paradigm claims the Studio/40 is an outstanding speaker and a great sound investment, this was not immediately obvious to us simply by looking at it. It’s interesting to note that the Studio/40 is completely manufactured in-house by Paradigm. The 1” pure-aluminum dome of the high-frequency driver has dual magnets. The high-pressure, die-cast aluminum chassis design minimizes flexing and ringing and acts as a heatsink for superior power control. I’m sure much thought,

effort and money went into driver construction. At first glance, the bass/midrange driver with its treated textile suspension resembles those found in other speakers. Actually, it's quite unique, a Mica-loaded polymer (MLP™), patented by Paradigm. It is lightweight and stiff making it ideal material for a bass/mid-range driver. The Studio/40 also has a bass driver (I'll discuss the 2-1/2-way working theory later) with a filled poly-propylene cone. The basket and magnet are the same as those used in the bass/ midrange driver. There is a huge amount of technology behind this driver construction which we have neither the time, nor the space to mention here. (Paradigm's catalog can fill you in on all the details.) Suffice it to say, Studio/40 is significantly different from what is usually available in this price range.

In addition to excellent drivers, we noted the quality of the cabinets. They feature Paradigm's patented Cascade™ technology. Interlocking, full-perimeter horizontal and vertical braces ensure "unsurpassed rigidity with exceptional freedom from unwanted vibration." Front and rear baffles use self-locking joints that strengthen overall rigidity. Internal resonance-absorbing material is also a Paradigm patent – UHP™ – "ultra-fine high-loft polyfiber damping material provides excellent absorption of rear wave and internal standing wave energy." This material is more expensive than common absorbing material but appears to be worth the price.

The 2-1/2-way design is unique. The main crossover occurs at 1.5 kHz. A polypropylene bass driver has been added to assist the bass/midrange driver. At frequencies lower than 400 Hz, both woofers work together to produce bass. At 400 Hz the bass driver rolls off and the mid/bass driver moves on up to 1.5 kHz alone.

Matching of enclosure and crossover is also critical. Obviously, Paradigm spent a lot of R&D time selecting slopes and crossover points. The enclosure is equipped with two port tubes to match the requirements of the drivers. On-axis frequency, as stated in Paradigm's catalog,

is from 59 Hz to 22 kHz, the difference is only +/- 2 dB. Such flatness tells us that there should not be any problem connecting the speaker. The crossover is designed like a double-decker bus. The top level houses the high-frequency section and the bottom houses the low-frequency section, physically separating each to prevent interaction. Heavy-gauge, high-purity copper wire is used throughout. It's certainly a sophisticated design. Neat and well organized, right from first glance.

"It didn't matter what type of music we played, reproduction was accurate, clear and clean ... dynamics and transparency were spectacular. ... imaging was extraordinary. ... robust bass ... the Studio/40 redefines the nature of bass from a speaker of this size."

PERFORMANCE

Premier offers a stand to fit the Studio/40. We should have used it. Instead we used a pair of three-footed stands from a British manufacturer. Each speaker weighs about 40 pounds so a heavy stand will provide needed stability. As for the amplifier, it was equipped with two generations of power, front and back—a 60-watt Balanced Audio Technology BAT VK60 power amplifier and a 10-watt Radio Craftsmen RC2.

The first impression from the Studio/40 was one of clear and transparent tones. All speaker manufacturers promote clarity and the outstanding Paradigm is no exception. However, to us, 'clarity' can mean a number of things ... neat, refined, well separated or transparent. Music reproduced by the Studio/40 was especially clear and transparent. Compared with the Studio/40, other speakers we

were reviewing sounded somewhat muffled. Paradigm's literature mentions low levels of coloration; a claim actually reinforced by the speaker's performance. It didn't matter what type of music we played, it was accurate, clear and clean, particularly vocals. For example, playing Ou Rui Qiang's *Min Ge Wei Dao* we could actually hear his throatiness, even his breathing. The effect was astounding. Image localization and spaciousness came across as a natural extension of this transparency. I can't think of any other speakers in this price range capable of this level of sound reproduction. Listening to Ella Fitzgerald's *Let No Man Write My Epitaph*, (Classic Records' 24K Gold CD) imaging was extraordinary. We were amazed.

Robust bass is another of Studio/40's remarkable characteristics. Earlier, we mentioned the unique 2-1/2-way design. Obviously, the manufacturer wanted to strengthen the bass. It was successful. At only 21-1/2" h x 8-1/4" w x 12" deep I don't think any other speaker of its size can come close to its robust bass. Enya's *Watermark* heard through these speakers was cause for rejoicing. Although Studio/40's low-end extension is 34 Hz, the explosion of deep bass was surprising. Reproduction of surging waves of bass created by an electronic synthesizer was shocking. Feel free to turn up the volume (keeping your neighbors in mind) since the Studio/40 never quails before high volumes. Inner detail came across convincingly. On certain recordings, dynamics and transparency were spectacular. Without a doubt Studio/40 redefines the nature of bass from a speaker of this size.

Another point in Studio/40's favor is the fact that it's easy to drive, with a highly efficient sensitivity rating of 91 dB making it an easy load for the amplifier. In fact, it's probably one of the easiest speakers to drive. Even with a 10-watt power amp the speaker was lively, not to mention its apparently unlimited supply of bass. Matched with a good-quality amplifier, Studio/40 will reward you with great sound reproduction.

CONCLUSION

Studio/40 provides tough competition for other speakers in this price range. In design, manufacturing and sound it surpasses all other speakers in its class. If it were any manufacturer other than Paradigm this speaker would be selling for at least twice as much. It's destined to challenge the high-end marketplace.