● **Comment.** As our test data show, the general performance of the Lafayette LR-4000 would qualify it for inclusion in any group of fine stereo receivers. The only nits we could pick concerned the control knobs, which lacked clearly visible indexing marks (although a marking pen with a thin tip could rectify that problem easily). Also, the concentric volume-control knobs should have been designed like the tone controls, with slip clutches, since considerable care is required when changing volume settings if front-rear balance is not to be disturbed. (Lafayette has corrected both problems in later production.)

The LR-4000 is a lot more than just another good stereo receiver. All told, it uses one hundred transistors and eight IC's—a formidable semiconductor complement! Many of these are in the full-logic SQ decoder. Recalling that the only other SQ decoder with comparable performance we have seen is a separate component that sells for $300 by itself, we wondered if the LR-4000's built-in SQ decoder could really achieve the same results.

Our judgment of its quadraphonic performance was based on careful listening to many of the commercial record releases we used during our recent tests of separate quadraphonic decoders (December 1972), and we can state unequivocally that the LR-4000 decodes SQ records with results subjectively identical to those produced by the $300 Sony SQD-2000 decoder. Of course the SQD-2000 is far more flexible and has about as many transistors in its decoder section alone as the entire LR-4000 receiver. However, it is evident that the designers of the LR-4000 have done a remarkable job of producing the "most" SQ receiver for the money we have yet seen.

When listening to other quadraphonic records made with the Sansui QS system (also called RM or Regular Matrix) or the old Electro-Voice matrix, we found that the LR-4000's COMPOSER A mode did the same fine job of decoding the material that had so impressed us during our tests of the Lafayette SQ-L decoder.

In summary, we find that the LR-4000 is a better-than-average stereo FM tuner and amplifier, with sufficient power (32 to 40 watts per channel, depending on drive conditions) for most home requirements. Except for our criticisms of the knobs, we were impressed also with its human-engineering aspects: the controls are laid out in a simple and functional manner, without sacrifice of flexibility. Its quadraphonic performance, with the matrixed records available to us, was outstanding, as was its overall sound quality and general ease of operation. All in all, the LR-4000 is a most impressive achievement—especially so considering its price.

*For more information, circle 105 on reader service card*

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**Magnum Opus 7 Speaker System**

- **Laboratory Measurements.** Our integrated frequency-response measurement, using the factory-recommended level-control settings, produced a very flat and uniform response curve through the middle and high frequency ranges. It varied only ±1.5 dB from 1,200 to 15,000 Hz. In the lower mid-range we found a slight rise at 800 Hz and a dip of several decibels at 500 Hz.

Our normal measuring procedure for low frequencies was complicated by the fact that lows are radiated from several parts of the system (the front woofer cone, the rear port, and the top woofer through its front and rear openings). Normally, we use a close microphone spacing to minimize room effects, but when we placed the test microphone near the front woofer, the measured output fell off rapidly below 60 Hz. This, as it turned out, was not a valid measurement, and we eventually had to rely on subjective comparison to other speakers we have measured for evaluation of low-frequency response. We would say that the Magnum Opus 7 is capable of a strong clean output all the way down to about 30 Hz, which we consider to be its useful lower limit.

The low-frequency distortion, measured close to the front woofer, was low at frequencies above 60 Hz; it

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