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High Fidelity

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Alexandria
by ORACLE

**Oracle's
Integrated
Turntable**

Oracle Alexandria two-speed (33 and 45 rpm) manual belt-drive turntable with automatic end-of-side tonearm lift. Dimensions: 19 1/4 by 15 1/4 inches (top), 6 1/4 inches high with cover closed; additional 11 1/4 inches clearance above and 2 1/4 inches behind required to open cover fully. Price: \$995. Warranty: "limited", three years parts and labor (excluding drive belt). Manufacturer: Trans-Audio Corp., Ltd., 505 Industrial Blvd., Sherbrooke, Que., Canada J1L 1X7 - (819) 563-6162.

SPEED ACCURACY: no measurable error, 105-127 VAC, at either speed.

SPEED ADJUSTMENT RANGE: at 33 rpm - +2.8% to -2.5%
at 45 rpm - +3.9% to -3.3%

WOW and FLUTTER (ANSI weighted peak): average - 0.050%
maximum - 0.063%

AUDIO New Equipment Reports

TOTAL AUDIBLE RUMBLE (ARLL) -65 3/4 dB

EFFECTIVE TONEARM MASS = 10 grams

TOTAL LEAD CAPACITANCE 107 pF

TRANS-AUDIO'S FIRST ORACLE (test report, July 1982) was in many ways simply a well-designed, well-built belt-drive turntable — albeit a little unusual in appearance. But, as in the new Alexandria, there were important differences between it and others of its kind — differences aimed at preventing extraneous vibration from being transmitted to the stylus and thereby coloring the sound. One avenue of attack was through the suspension. Like most other high-quality belt-drive turntables, the Oracle mounts the platter and the tonearm on a floating subchassis suspended at three points by springs tuned to a resonance frequency of a few Hertz. This filters out most air- and surface-borne vibration, including any produced by the motor, which is mounted on the main chassis and decoupled from the platter by an elastic belt. But Trans-Audio took the concept several steps further.

One was to hang the subchassis from the springs, rather than perch it atop them, and to put its center of gravity at the same height as the springs' fixing points — both to combat any tendency to rocking or swaying (which might manifest itself as wow or flutter). Another was to make the subchassis itself as inert as possible, by making it a multilayer laminate of metal and damping material. (The platter is also damped with an outer ring of rubbery material that Trans-Audio calls a Peripheral Wave Trap.). The last was to make the main chassis as vestigial as possible, to eliminate it as a source of vibration pickup. This is why the original Oracle, and the Oracle Premier, have such a skeletal appearance. There is no conventional surrounding base to shield the subchassis from view.

The Oracle's second line of defense was a screw-down clamp that flattens records into intimate contact with a specially designed compliant platter mat. Thus, any vibration induced in the disc is immediately damped out. Given that the surface of a disc can act as a crude, but nonetheless effective, microphone diaphragm, this is an important point.

All of these features have been carried over into the new Alexandria, although they have in some cases been modified to reduce manufacturing costs and improve the unit's appearance. There is, for example, a handsome wooden base with three leveling feet. But it has a very slim profile, to minimize acoustic pickup. Gone too is the expensive laminated subchassis, replaced by a single, computer-designed casting with strategically placed ribs and applications of damping compound that are said to provide almost the same degree of rigidity and inertness. And the Alexandria comes with its own tonearm (available separately as the Prelude), which allows the suspension to be pretuned at the factory for optimum performance.

This arm is itself an interesting item. Trans-Audio says it used computerized vibration analysis to achieve a high degree of rigidity combined with excellent internal damping and low effective mass. It comes with two counterweights of different masses, to facilitate balancing with a wide variety of cartridges, and uses a simple weighted-lever-and-thread arrangement for antiskating compensation. Arm height is adjusted by means of a knob on top of the pillar next to the bearing housing, which can be twisted to raise or lower the base of the arm very gradually, permitting precise adjustment of the stylus-rake and vertical-tracking angles, even while a record is playing. (We don't think this adjustment is as critical as some have made it out to be — an opinion supported by our experience with the Alexandria — but the mechanism is a real convenience for those of us perfectionists who like to get everything spot-on anyway, just in case.)

Another nice touch is the inclusion of an autolift that cuts in when the stylus approaches the record label, picking it up out of the groove. The system is cocked automatically anytime you cue the stylus down. The way this is done, however, is a little unusual, since you must apply downward pressure on the cueing lever until it locks into place; to cue the stylus up, you just pull up on the lever to unlock it, and the arm rises on its own. The system takes a little getting used to, and its descent rate is greater than we would prefer, but otherwise it seems eminently sensible.

Neither the arm tube nor the headshell is detachable, but, by loosening a set screw in the arm pillar, you can twist the arm tube to adjust stylus azimuth. Trans-Audio supplies a plastic "calibration disc" that aids in this operation as well as in setting VTA, stylus overhang, and speed. A set of three flush-mounted buttons on the top plate selects 33 rpm, off, or 45 rpm, plus there is a fine-tuning thumbscrew artfully concealed below the front edge of the case.

To prevent stiff lead-out cables from fouling the suspension, the tonearm leads proper are short, flexible wires that terminate in gold-plated RCA pin jacks on the back of the base, next to the connector for the turntable's external power-supply box (intended to minimize hum). These wires and the internal arm wiring contribute 39 picofarads of shunt capacitance, while the supplied 6-foot connecting cables add another 68, for a total of a mere 107 picofarads. As in the other Oracles, the subchassis can be leveled from above, if necessary, via an integral spirit level.

We found setting up the Alexandria a time-consuming, but relatively straightforward task. The instructions are clear, with plenty of illustrations, and aside from the usual cartridge-mounting hassles, there are no special difficulties. We do think, though, that Trans-Audio should either have threaded and calibrated the counterweights or supplied a stylus-force gauge. Although anyone buying a product such as this should own such a gauge, not everyone will, and sliding the weight back and forth to achieve proper balance makes the procedure more tedious than it need be. We also found the antiskating thread to be a little slack when the arm was in its rest, but this is very easily remedied.

Once assembled and adjusted, the Alexandria performed superbly, both in use and on the test bench. Diversified Science Laboratories' measurements show perfect speed accuracy and very low flutter and rumble. The arm's effective mass is moderately low, in a range that should be compatible with a wide variety of cartridges. And rejection of acoustic and mechanical feedback is virtually complete, ranking the Alexandria with the best turntables we have tested in this respect. If you're looking for a top-quality manual turntable with tonearm, this very handsome and capable unit deserves your serious consideration.