



Dual's 1249: A Belt-Drive "Changer Plus"

The Equipment: Dual Model 1249, a two-speed (33 and 45) automatic multiple-play turntable with integral arm. Dimensions: 14¾ by 12 inches (top plate; approximately 1 inch additional clearance required in both dimensions for counterbalance); clearance of approximately 2¼ inches below and 5¼ inches above top surface of mounting board for use as changer. Price: \$279.95; WB-19 walnut-veneer base, \$16.95; LB-19 simulated-walnut base, \$15.95; DC-9 dust cover, \$15.95; DC-6 low-profile cover, \$13.95. Warranty: one year parts and labor, shipping prepaid. Manufacturer: Dual, West Germany; U.S. distributor: United Audio Products, 120 S. Columbus Ave., Mount Vernon, N.Y. 10553.

Comment: The 1249 might be called a "changer plus," since it includes automatic features seldom found on automated turntables, record-changing or single-play. It is, moreover, a further step in the direction of automatics that cannot be distinguished from manuals in terms of performance measurements. In one respect—rumble—it betters (though by a mere ½ dB) any changer we've yet measured and comes within 1 or 2 dB of all the most rumble-free single-play units CBS has measured for us: all, that is, except Dual's own record-holding Model 701.

Power for the turntable is provided by a synchronous motor (with no measurable change in speed when CBS varied AC power between 105 and 127 volts) and a belt drive. The platter (which weighed in at the lab at 2¾ pounds) has an ingenious cast-in strobe scale that can be used with either 50- or 60-Hz illumination. The speed lever at the left front has a knurled fine-tuning knob at its fulcrum; adjustment is made by setting the lever to 33 and rotating the knob until the markings, illuminated by a small strobe light at the right front of the platter, appear to stand still. Once the platter is set for 33 rpm it is engineered to be correct at 45; there are no strobe markings for the higher speed. The control range at 33 measures -4.4 to +3.6%; at 45 it is -0.9 to +2.0%.

The start/stop lever is to the right of the platter. It can be used for automatic multiplay operation or automatic single-play. For semiautomatic operation you simply release the latch on the arm support, raise the arm (which starts the motor), and place it in position to play the record—using the damped cueing control to the right of the arm support (which functions nicely with no side drift) if you wish. Arm return is automatic at the end of the record side. The lab measured tripping force at 0.3 gram, slightly higher than the 0.25 gram minimum VTF at which Dual says the unit can be operated. This is a moot point, however, since VTFs desirable with today's cartridges—even the most compliant—are closer to 1 gram.

For multiplay operation—which yields a 13-second change cycle at 33 rpm—you use the changer spindle, of

course (a stub that rotates with the platter plus an adapter for large-hole 45s also are provided) and turn a lever at the base of the arm mount from SINGLE to MULTI. This not only engages the changer function, but raises the arm mount by about ¼ inch, making the arm parallel to the record surface in playing, roughly, the third record in the stack. The changer operation is designed for a maximum stack of six records. Some users, particularly if they seldom stack more than two records at a time, may wish that arm height and changer operation had not been coupled so that vertical tracking angle could remain optimized for one record even in the multiplay mode. To our mind this would be perfectionism run rampant since the "errors" involved are minute and in any event far smaller than the departures from the 15-degree "standard" in cartridge styli.

One unusual automation feature is a little mechanical switch near the cueing lever and marked 1/∞. The 1 position is normal; the ∞ (which stands for infinity, of course) indicates that in this position the unit will play the record until you direct otherwise.

There is nothing difficult about setting up the turntable. We are always annoyed by the black/white coding on the signal leads of European turntables when so much of the remaining audio world—including pickup-connection leads—is on the red-for-right standard. But Dual, unlike some of its competitors, does give correct instructions in its manual, and one need look them up only once if the 1249 is to remain permanently in the same system. And black-and-white pin plugs certainly will please most American buyers far more than DIN-only fittings.

Dual has retained the clip-in cartridge mount (as opposed to a fully removable head shell) and the molded plastic stylus height-and-overhang gauge of previous models. Arm balance is achieved by adjusting the position of the counterweight at the back of the arm; then the VTF is set at a dial near the arm pivot. Antiskating is dialed—accurately, with respect to theoretically desirable values—on a triple-scale (for spherical, elliptical, and CD-4 styli) control next to the arm-lift adjustment.

The "shell" and pivot designs are cosmetically somewhat different from previous models but functionally similar—the full gimbal bearings (in which the lab could measure no appreciable friction) have been retained, for example. As the accompanying table shows, the VTF settings are accurate to within 0.1 gram almost to the top of its range, with a maximum (and negligible) inaccuracy of 0.2 gram at the 3-gram setting. Arm resonance (with the Shure V-15 Type III cartridge) shows a rise of only 1½ dB at 9.5 Hz—which suggests minimum problems in tracking even severely warped records. The rumble measurement, alluded to before, is -63½ dB by the CBS-ARLL method. ANSI/IEEE peak wow is very low at 0.05% average and 0.08% maximum. In use, the unit behaves faultlessly.

In short, Dual is keeping up with recent improvements in single-play turntables by once again producing a changer that will outperform many manuals and approach even the best. This is, on all counts, a superb changer and a fine turntable by any standard.

CIRCLE 17 ON READER-SERVICE CARD

Dual 1249 Additional Data

Stylus-force gauge accuracy (grams)

Setting	Measured
0.5	0.5
1.0	0.95
1.5	1.4
2.0	1.9
2.5	2.4
3.0	2.8