

**ADC
Model 1700DD
Semi-Automatic,
Quartz-Lock Turntable**



Manufacturer's Specifications

Type: Two speed.

Motor Type: Quartz-reference, phase-locked loop, direct drive.

Variable Pitch: Six percent range.

Wow and Flutter: Less than 0.03 W rms.

Rumble: -70 dB DIN "B."

Drift: 0 percent.

Tracking Error: Less than 0.5 degrees per inch.

Dimensions: 18.5 in. (47 cm) W x 15 in. (38.1 cm) D x 6 in. (15.24 cm) H including dust cover.

Price: \$279.95.

The ADC 1700DD is an attractively priced, quartz-lock turntable with some features usually reserved for more expensive models. For instance, the tonearm is a straight, aluminum, low-mass type with a tiny plug-in headshell made of carbon fiber. The bearings are highly polished instrument types, with a cradle suspension similar to that used on the sophisticated and expensive ADC LMF-1 which costs almost as much as this turntable! The connector pins are silver plated, and the shell is locked firmly to the arm by a screw.

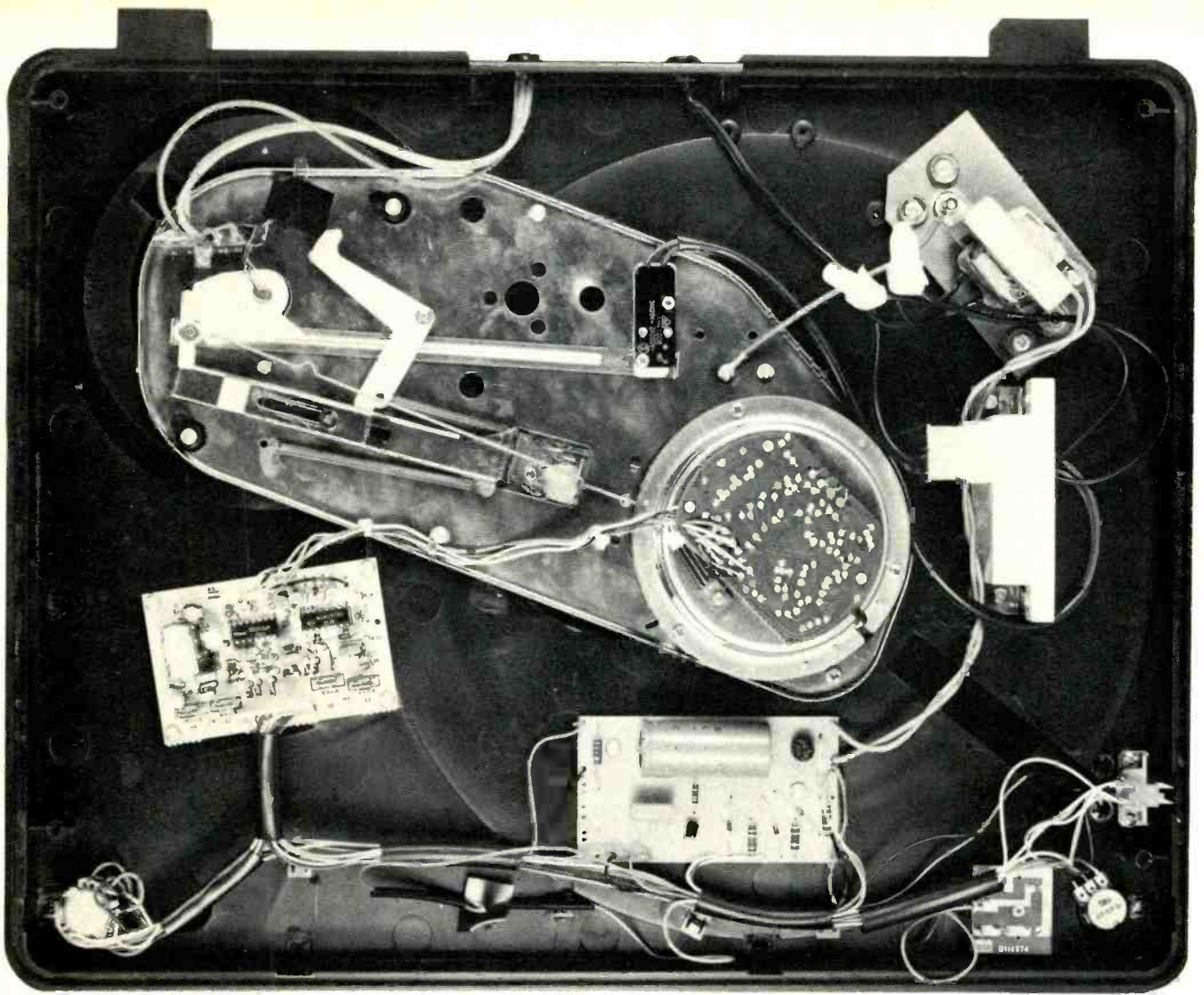
Length of the arm is just under 9½ inches from pivot to stylus — rather longer than average. A calibrated counterweight is at the rear, and the tracking force adjustment range is from 0 to 3.5 grams. The arm is mounted on a plate which is suspended from the top panel, and further acoustic isolation is provided by the four large, spring-loaded feet at the base of the unit. This base, by the way, has neat rounded corners and is molded from a high-density plastic material — a design feature which is becoming more common these days. On the left-hand side is a variable speed control, and just behind it is a strobe plus a push-button switch for disconnecting the quartz lock (unlocking it — if you prefer). To the right of the speed control are two windows which display the speed (33 or 45 rpm). When the lock is on, the words "quartz lock" are also shown; when the lock is off and the variable control is operative, only the numbers 33 or 45 are visible. It must be emphasized that there is no continuous digital readout.

Over on the right-hand side, there is a light indicating that the power is switched on, and at the extreme right there is a three-position switch for Off, 33, and 45 rpm. A long cue lever is mounted near the arm base, and in front of it, next to the arm rest, is the anti-skating dial. The motor is servo-controlled, and the die-cast aluminum platter is dynamically balanced. It weighs 2.3 lbs, and its soft rubber mat is treated with an anti-static material.

Laboratory and Use Tests

For test purposes, a Stanton 881S phono cartridge was mounted in the shell, and tracking force set to 1 gram with the anti-skating dial set at 1.25. The first test was for wow and flutter, and the combined figure came out at 0.045 percent using the DIN 45-507 standard. Rumble measured -63 dB (ARLL), somewhat better than the -70 dB DIN B figure claimed (as a rule, DIN B is roughly equivalent to the ARLL figure plus 9 dB). Tracking error was significantly better than 0.5 degrees per inch, and the tracking force calibration error was negligible. The anti-skating dial matched the tracking force quite well, and optimum results were obtained when the anti-skating dial was set about 20 percent higher than the tracking force.

Both lateral and vertical bearing friction was insignificant (the figures quoted are 5 and 7 milligrams). Arm resonance with the 881S was at 10 Hz with a rise of 4.5 Hz with the cartridge brush lifted so it was well clear of the record. With



the brush down, the rise was reduced by 2 dB and, in any case, 10 Hz is outside the "warp zone." As claimed, the time taken to reach full speed was two-thirds of a revolution, while the arm return cycle took approximately 4 seconds. The speed control had a range of +7 percent and -4.8 percent which is more than adequate.

As the arm is moved to the record, the turntable starts automatically, and the cue lever can then be used to lower the cartridge. If the right-hand control (the one labelled 33, 45, and *Off*) is in the *Off* position, the stylus can be placed in

the desired position before switching the motor on. At the end of the record, the arm is returned to its rest. The cue control is nicely damped, and I was pleased to note that there is the minimum of backlash. Although the tracking force was set to 1 gram, I must confess I initially thought this was a little optimistic. This was not the case at all, and I found that the 881S tracked all bands of the Shure Era III "torture test" record with ease. All-in-all, the ADC is a nicely styled, well-made turntable with a good performance. At today's prices, it is a bargain!

George W. Tillett

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