

Equipment Profiles (continued)

Dual Model 1212 Automatic Turntable

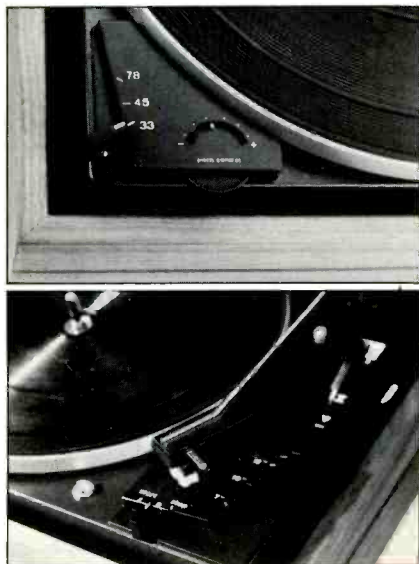


MANUFACTURER'S SPECIFICATIONS:

Speeds: 33 $\frac{1}{3}$, 45, and 78 rpm. Operation: Manual, Auto-single, and Auto-Changer. Pickup Arm: "Dynamically" balanced. Variable speed control: $\pm 3\%$. Dimensions: (on base) 14 $\frac{1}{2}$ x 12 $\frac{1}{2}$ in.; (without base) 13 x 10.8 in. Height above motor board: 4 $\frac{1}{4}$ in. Depth below motor board: 2 $\frac{1}{2}$ in. Price: \$74.50. Base: \$7.95. Dust Cover: \$8.95.

Similar in appearance to the other Duals—the top-of-the-line 1019, the 1009F, and the 1015F, the 1212 is obviously the economy model of the Dual line, but its performance suffers little in comparison with its more costly companions. The counterweight is slightly more difficult to adjust, the anti-skating compensation is fixed in relation to the stylus-force adjustment, and the motor is slightly lighter. However, once the cartridge is mounted, the counterbalance affixed and adjusted, the stylus force set and a record placed on the turntable, the differences do not appear so great at all.

Fig. 2—Top photo shows close-up of pitch control. The cueing lever may be seen to the right of the tone arm in the bottom picture.



At the left front of the motor board is the speed selector, a plastic lever; adjacent to it is a knurled flat knob which is the vernier speed control, protected by a sliding plastic guard so that once set, it is not likely to be moved accidentally.

At the right is the start-stop lever, and along the side of the arm is the lever which selects the record diameter—7, 10, and 12 in. To start the unit, one simply moves the operating lever to the START position. The arm lifts, moves over to the correct set-down position, and lowers gently to the record surface. When the record is completed, the arm is lifted, returned over to the rest, and if no other record is in place on the automatic spindle, the arm drops to the rest and the motor is shut off. If you are playing a stack of records, the next one drops and the cycle completes. If you lift the arm and return it to the rest, the motor stops.

The stylus force adjustment is a knurled wheel that sets the force and the anti-skating adjustment at the same time. It covers the range from 0.5 to 5 grams. The cueing lever raises the stylus from the record surface when desired, and lowers it when the lever is moved to the other position.

Mounting the cartridge in the correct position for minimum tracking error is facilitated by a plastic gauge which indicates the exact height and position for the stylus for optimum performance.

Performance

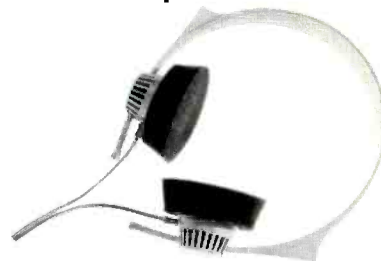
The all-important signal-to-noise ratio is probably the one factor which usually suffers when economies are practiced in the construction of an automatic turntable, but in this model it does not appear to be the case. We measured rumble at 37 dB below a 3.54 cm/sec signal, which is excellent. Wow and flutter measured 0.12 per cent in the 0.5 to 6-Hz range, and only .03 per cent in the range from 6 to 250 Hz, which is also quite acceptable, since it indicates that the wow is in the extremely low range, and not usually audible.

Cycling time at 33 $\frac{1}{3}$ rpm was measured at 13 sec.; it was 10 sec. at 45 rpm, and 7 sec. at 78. Speed variation over a line-voltage range from 90 to 120 was less than the $\pm 3\%$ vernier speed adjustment, so regardless of your line voltage, your records can be played at the proper speed.

The Dual 1212 is judged to be an excellent automatic turntable, and one which would be perfectly acceptable to the user who must, for whatever reason, remember the budget.

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Sennheiser Model HD-414 Stereo Headphones



MANUFACTURER'S SPECIFICATIONS:

Frequency Response: 30 to 20,000 Hz. Impedance: 2500 ohms per phone. Ear Pads: Fine-grained poly foam. Headband: plastic, molded. Cord: 3-conductor plastic, 10 ft. long. Standard 3-way phone plug. Weight: 5 oz., including cord and plug. Price: \$29.95.

Imagine a lightweight pair of phones with pads that feel like a pair of powder puffs on your ears, and you get the idea of how the Sennheiser HD-414 phones feel on your head. The pads themselves are of an extremely fine poly foam construction, and measure 2 $\frac{3}{4}$ in. in diameter and are $\frac{3}{4}$ in. thick. The molded plastic housings for the dynamic units are attached to the molded plastic headband by a slip fit, and can be removed easily. The ear pads slip on or off at the slightest touch. Even the cords connect to the phones by a small dual plug which is polarized so that it must be inserted properly. Each cord is covered where it enters the plug by a colored sleeve—yellow for left and red for right.

These are undoubtedly the lightest phones we have ever encountered, yet performance is good. The curves for the two phones are very similar.

In actual use, the HD-414 phones seem so light as to be complete unnoticeable while wearing. The acoustical design is such that large circumaural pads are not necessary, and the poly foam pads provide the smoothing element to make the response relatively flat over the entire hearing range.

The high impedance of these phones has another great advantage to the user who needs high-impedance phones for use with a tape recorder or a pre-amp output, yet also wants to plug them into the jack on the front of his receiver or amplifier for the usual stereo listening. Because of their high impedance, the headphones are not overloaded when connected directly to the output from a 60-W/channel amplifier, yet they provide listening level when operating from the usual output jack on a tape recorder.

Listening quality is excellent, and for comfort, the HD-414 is just about tops.

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