



Garrard Synchro-Lab 95B Auto Transcription Turntable

MANUFACTURER'S SPECIFICATIONS:

Speeds: Three—33 $\frac{1}{3}$, 45, and 78 rpm.
Motor: Synchro-lab (combination synchronous and induction to reach operating speed quickly and then maintaining exact speed). **Platter Diameter:** 11 $\frac{1}{2}$ in. **Wow & Flutter:** .07%. **Dimensions:** 13 $\frac{3}{8}$ x 12 $\frac{1}{2}$ in. (chassis alone). On base with dust

cover: 16 $\frac{1}{2}$ x 14-9/16 x 8 $\frac{1}{4}$ in. **Weight:** 11 lbs. **Price:** \$129.50.

The SL-95B represents a gradual improvement over the SL-95, as is the usual custom of Garrard. To the eye, the principal change is the addition of a cueing control in the front right corner. This control is in the form of a vertical tab which raises and lowers the arm on command—forward to lift,

and a return to the vertical position to lower. Mounted on its new plastic base and fitted with the new "smoky" plastic dust cover, it is an elegant piece of equipment—one which could improve the appearance of practically any music center.

At the front left corner of the motor board is the speed control with its five positions—from left to right, the speeds are combined with record diameter settings as follows: 78, 12 in., 45, 7 in., 33, 12 in., 33, 10 in., and 33, 7 in. Since the 10-in. LP record has become obsolete, the need for automatic selection of record diameters has diminished, and is really only necessary if the user has a large collection of the older 10-in. LP's which he wishes to play intermixed with the current 12-in. disks. At the right front corner are the three-tabs which control the operation of the unit. From left to right, they are: Auto start and stop, with the start position serving as a reject control; Manual, off and on; and the previously mentioned cueing control which raises the arm or lowers it without moving it laterally.

The arm itself is an aluminum channel damped with a strip of wood. It is

mounted at an angle in a metal ring which is, in turn, is pivoted vertically. The arm, with the cartridge mounted, is balanced with a counterweight at its rear—sliding for large adjustments, and using the knurled knob at the back for final accurate balancing with the stylus-force control set at “0” grams. The proper stylus force is then dialed in with a thumb-wheel under the arm to the desired force as indicated by a line against a scale calibrated directly in grams. The range of force is from 0 to 5½ grams, with click stops indicating quarter-gram intervals, and is provided by a spring under the arm. A sliding weight is then moved along the anti-skating-force arm at the right of the arm base to the same indicating number as the stylus force.

Three additional adjustments are provided on the arm, and while rarely used, their presence indicates good design, since these adjustments are important, even though rarely changed. One of them adjusts the height of the arm in the lifted position so the stylus will clear the top record on a stack of played disks (maximum of six). A second adjustment sets the maximum height the arm will reach, and this is set so the top of the arm will not touch the bottom of the lowest record on the automatic changer spindle when the machine is used as a changer. The third adjustment sets the radius at which the stylus lowers to the record surface. Once this is set for the 12-in. position, the other two positions will be correct.

The high-impact plastic base is attractive in itself. Besides being perfectly fitted to the motor board, it provides two compartments for extra spindles. Both have hinged covers, and the forward compartment accommodates the automatic and single-play spindles, while the rear one is designed to hold the 45-rpm adapter. In case the user plans to mount the unit on a base of his own construction or in an existing cabinet, spring clips are provided, along with mounting screws, to hold the 45 adapter, and to hold the automatic and single-play spindles. The base is fitted with cork-compound pads to protect the surface on which it is placed as well as to provide some high-frequency isolation.

The dust cover is strikingly attractive and provides for two ways to

permit access to the platter to load the machine or to change records. If the unit is installed in shelves, the cover is simply pulled forward in the molded troughs in the base and removed. If used on a table top or if sufficient space above the turntable is available, the cover is lifted upward to gain access to the mechanism. It remains tilted upward at an angle of about 45 deg. until released by a gentle push forward. The dust cover, and the back plate which fits into slots in the molded base, represent a unique design, since there are no hinges, no holding arms or levers—only the single spring which holds the cover in the raised position.

Performance

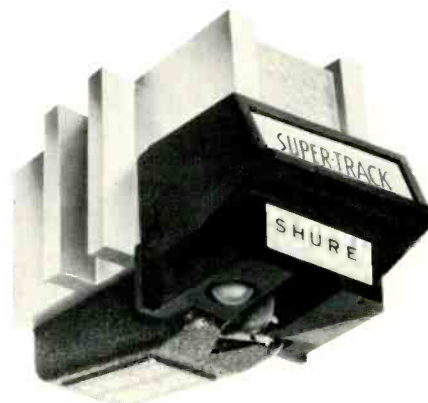
The SL-95B performed about as we expected from our earlier experience with the Garrard line. Speed was exact when driven by a 60-Hz source, and varied with frequency when driven by a variable-frequency source, as would be indicated when a synchronous motor is used. There was *no* speed variation, however, from 85 to 135 volts, and since the only likely variation in supply parameters is voltage, the unit's constancy is all that anyone would want.

Wow-and-flutter measured .07 per cent in the range from 6 to 250 Hz, which is right up to specifications. In the range from 0.5 to 6 Hz, the figure was 0.12 per cent which is reflected in the overall flutter figure—0.5 to 250 Hz—with the same measured value. The rumble figure was somewhat better than the previous models of the SL-95, and well above average for automatic turntables of conventional drive. This value measured 41 dB below a peak stylus velocity of 5 cm/sec at 1000 Hz, unweighted, and a comfortable -59 dB with the “A” weighting network. The turntable performance was measured using a Shure V15 Type II improved cartridge, and arm resonance with this cartridge measured 8 Hz. Cycling time at 33 rpm was measured at 10 seconds from the time of cycle activation until music started on the next record, which is remarkably fast for a high-quality turntable.

The new Garrard SL-95B is undoubtedly the best turntable that has been produced in this line so far. It is extremely attractive with its base and

dust cover, both of which are optional accessories, and it performs superbly. In over twenty hours of use, the unit performed flawlessly, with never a fault in its changing operations during that time. Naturally, we cannot test any equipment to destruction and still produce a number of profiles each month. However, Garrard's reputation practically guarantees continued high-quality performance for years, and any user should be completely satisfied with this model, which represents the culmination of many years of turntable manufacture.

Check No. 54 on Reader Service Card



Shure V-15 Type II (Improved) Stereo Phono Cartridge

MANUFACTURER'S SPECIFICATIONS:

Frequency Response: 20 to 25,000 Hz. **Output Voltage:** 3.5 mV per channel at 1000 Hz. **Channel Balance:** Within 2 dB. **Tracking Force:** ¾ to 1½ grams. **Input Impedance:** 47,000 ohms (nominal); can be used up to 70,000 ohms without audible change in response. **Inductance:** 720 mH. **D.C. Resistance:** 630 ohms. **Typical Trackability at 1 gram:** 400 Hz—28 cm/sec; 1000 Hz—35 cm/sec; 5000 Hz—30 cm/sec; 10,000 Hz—22 cm/sec. **Stylus:** Elliptical diamond, .0002 x .0007 in. radii. (.0007 spherical stylus available on V-15 Type II-7). **Weight:** 6.8 grams. **Price:** \$67.50.

The Shure line of cartridges has improved and improved over the years since its introduction of the monophonic “Dyneric” which was introduced in 1957. The “V-15” of a year or so ago was a big step forward, to be followed by the Type II, which has been a standard for some time. Now they have introduced the “Improved” V-15 Type II, and it does exhibit a