RABCO ST-4



WHY

Phonograph records are recorded by a cutter-head that moves in a straight line across the master record. This is how they should be played back.

The common pivoted arm produces at best, pickup motion that is a compromise with the desired goal of true reproduction of the original.

The ST-4 does not compromise.

The offset, or bent, arm is an expedient that results in only an approximation to the ideal tangency condition required for true high fidelity.

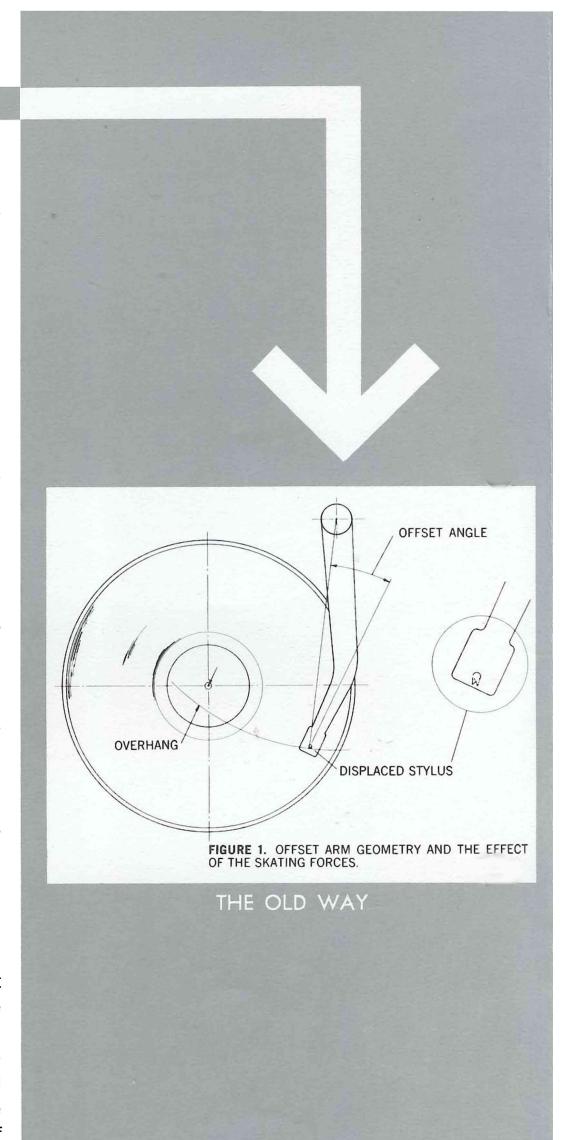
The ST-4 provides for true tangency.

Modern records should be played by pickups having styli of great compliance and using a minimum of vertical force. Future pickups will have even smaller mass at the stylus and even higher compliance of the stylus mount. The ST-4 permits the use of these advanced pickups.

The offset arm results in undesirable side forces on the stylus (skating force) and no simple device in use today can eliminate this force. The design of the ST-4 reduces this force to a minimum.

The magnitude of the skating force is a result of many factors such as the smoothness of the record groove, the coefficient of friction between the record and the stylus, the shape, the mass and the compliance of the stylus, the vertical force upon it, and the amplitudes and the frequencies contained in the recording. All of these factors were taken into consideration in the engineering of the ST-4.

The ST-4 uses a scientifically correct pickup mounting that is not a morass of approximations and compromises.



HOW

In the ST-4 system the pickup moves in a straight line so that the record is played as it was originally recorded.

The ST-4 supports the pickup by a short, light, and straight arm.

A servo system, using an elegantly simple principle, keeps the arm correctly tangent to the record groove at all times.

This is the first integral turntable and servo-controlled tone-arm mechanism that insures true tangency, not merely between the pickup body and the record groove, but between the stylus itself and the groove. This is of extreme importance.

The servo system follows the grooving of any present day record. The groove spacing can be constant or variable — the servo system will automatically follow.

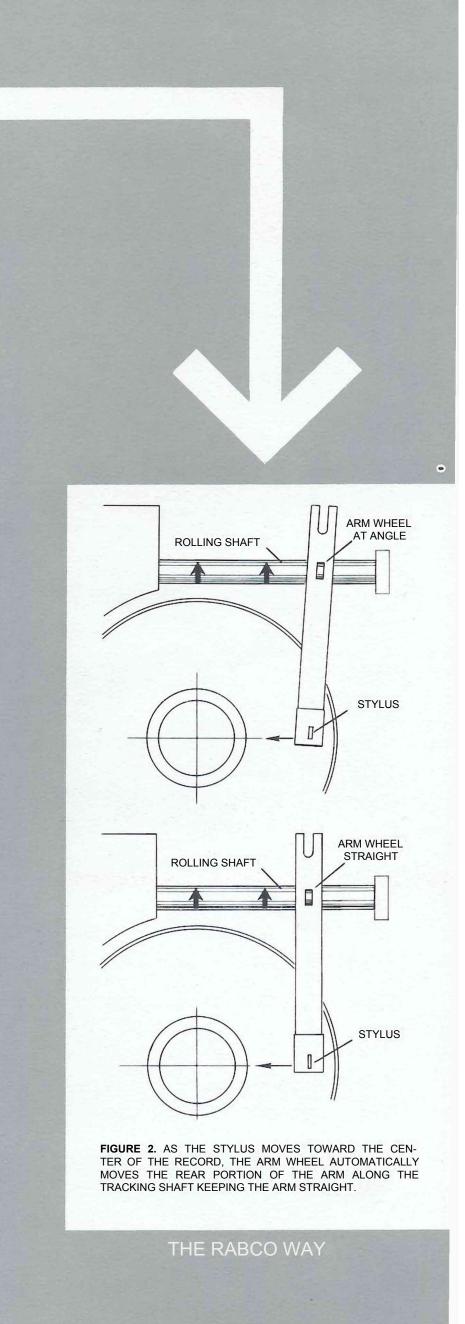
The ST-4 tracks perfectly with a vertical force of a small part of a gram — far less than can be used for any pickup made today.

The arm is ready for tomorrow.

The ST-4 prolongs the life of both the stylus and the record through the use of the lightest pickups and the elimination of unnecessary stylus-groove side pressures.

The ST-4 utilizes the latest engineering principles.

It uses a heavy non-ferrous turntable, belt driven by a synchronous motor to insure constant speed independently of line voltage. The turntable and tonearm are isolated from the motor mounting to reduce rumble to inaudible levels.



SPECIFICATIONS

DIMENSIONS $15^{1}/2 \times 18 \times 5$ with base — $10^{1}/^{4} \times 18 \times 6$ with cover.

WEIGHT 15 pounds

TRACKING FORCE 1/3 Gram; Minimum.

TURNTABLE Precision die-cast, driven by vibration isolated, synchronous motor. Either 45 or 33 RPM speed can be obtained with the use of a selecting lever.

RUMBLE —60 db.

TONEARM Driven by a mechanical bi-directional proportional servo system. The arm is provided with a "steering" wheel that rides on a constantly revolving shaft and keeps the arm at right angles to the shaft. Any deviation from true tangency to the record is immediately corrected. Automatic lift at end of record. Pushbutton cueing.

PICKUP MOUNTING Cartridges with standard spacing of mounting holes fasten with two screws. Cartridge holder can easily be adapted to any other spacing. Plug-in cartridge holders interchangeable.

OUTPUT CONNECTIONS Standard three foot double ended stereo cable is supplied.





RABCO ST-4 with walnut base (less cartridge and dust cover)

OPTIONAL ACCESSORIES

DC-4 DUST COVER

CH-4 PLUG-IN CARTRIDGE HOLDER

U.S. PATENT NO. 3,129,946

