LINEAR TRACKING
DIRECT DRIVE AUTOMATIC TURNTABLE

LAB-2000

OWNER'S MANUAL

REALISTIC®

CUSTOM MANUFACTURED FOR
RADIO SHACK, A DIVISION OF TANDY CORPORATION

CAT. NO.
42-2910
Your new REALISTIC LAB-2000 Direct Drive Linear Tracking Automatic Turntable uses the latest in audio technology to give the superior sound reproduction audiophiles demand. A powerful brushless DC FG servo motor gives unwavering, near-perfect speed. The stroboscope and bright LED lets you quickly and precisely adjust turntable speed.

The logic controlled linear tracking arm maintains the stylus of the cartridge at the correct angle to the radius of the groove over the full surface of the record—which means low distortion and excellent tracking at less than 1.5 grams. The turntable comes complete with Realistic/Audio Technica Dual Magnetic type cartridge with 0.4 x 0.7 mil diamond stylus that reproduces frequency between 20-20,000 Hz while maintaining superior channel separation.

UNPACKING AND PREPARING FOR USE

You have just received and unpacked your unit. You must have noticed that special care was given to packaging to avoid any possible damage during transport. Remove the red transportation screw from the bottom cabinet. Keep the packing box and transportation screw for use in case you should need to transport it at some future date.

INSTALLATION

Carefully lower the Turntable Platter onto the Motor Spindle. Set the Rubber Mat on the Platter. (See Figure 2)

Cartridge and Counterweight are adjusted and fixed to the Tonearm. (See Figure 3) The Counterweight is preset and should be changed/adjusted by a qualified service technician, only.

To insure top performance, install only on a solid surface, free from vibration. Avoid areas of high humidity and direct sunlight or other sources of heat (heaters, hot air vents, etc.). Good air circulation would be helpful.
ELECTRICAL CONNECTIONS

1. **Pickup leads with RCA type plugs:**
   Connect the pickup leads (L and R) coming from the rear of the turntable to the PHONO input jacks of your Amplifier/Receiver — red for right channel and white for left channel.

2. **Ground wire:**
   Connect the ground wire (thin wire) to the GND terminal on your Amplifier/Receiver. This will reduce or eliminate hum.

3. **AC line cord:**
   Plug the AC line cord coming from the rear of the Turntable into a convenient source of 120 volts, 60Hz (220/240 volts, 50Hz for European/Australian models) AC power (a wall outlet or an unswitched AC receptacle on your Amplifier/Receiver).
OPERATION

1. Plug the AC line cord into a source of AC power.
2. Press the POWER button; The Stroboscope will light along with Size and Speed Indicators.

3. Check that the REPEAT button is not activated (see that Repeat indicator is OFF).
4. Remove the stylus protector.
5. Place a record on the Platter.
6. Set the Record SIZE selector to 12" or 7". Select the appropriate speed, 33 or 45.

7. Press the PLAY/CUT button. If you want to hear the record over and over again, push the REPEAT button; Repeat LED will light.
8. The Tonearm will automatically move to set the stylus at the beginning of the record.
9. At any time during the play cycle, you can gently lift the Tonearm from the record by pressing CUEing button.
10. At the end of the record, the Tonearm will automatically return to the arm rest and the Turntable Platter will stop. If you have set the REPEAT button, the Tonearm will return to the first groove and repeat playing.
11. To stop playing before a record finishes its playing cycle, push the PLAY/CUT button. The Tonearm lifts and returns to its rest and the Turntable Platter will stop.
12. To stop repeat play, push the REPEAT button again; indicator LED will go out.
13. If you want to play manually:
   a. Press and release the CUEing button; the Tonearm comes up.
   b. Shift the Tonearm horizontally over the desired part of the record, using buttons "◄◄" or "►►"; the Tonearm will move either to the left or to the right depending on your choice.
   c. Press and release the CUEing button; the Tonearm will descend and play, beginning at the selected groove.

NOTE:
1. Before playing, if the Stroboscope dots move, rotate the Pitch control knob until the relevant dots appear motionless. If dots move toward the left, rotate the Pitch control knob toward "−". If dots move to right, rotate the Pitch control knob toward "＋".

Figure 6

Figure 7

Figure 8

Figure 8
2. Manual buttons "◄◄" and "►►" are double-step type switches. Press half way until you feel the first "catch" for slow movement of tone arm; press all the way in for fast movement.

3. When the Tonearm is moving automatically, do not touch the arm.

45 R.P.M. adapter
When playing a 45 R.P.M. record with a large center hole, place the Adapter over the Turntable spindle.

REPLACEMENT OF CARTRIDGE
Remove the screw and nut that holds the cartridge assembly in place. Then carefully remove the cartridge assembly by pulling it straight out. Install the new cartridge assembly. Make sure it is all the way in and is straight. Replace the screw and nut. (See Figure 9).

HINTS FOR BETTER SOUND

Howling:
Cartridges are very sensitive and may pick up slight sound pressure or vibrations of the speaker coming along the floor or through the air. This results in howl. Therefore, location of your turntable is very important. Find a location where it will be very stable and free from vibration.

Induction Hum:
Your turntable utilizes a brushless DC FG servo motor to reduce inductive hum. If you notice annoying hum, it may be caused by an electromagnetic field produced by motors or transformers used in other products. Do not place the Turntable near the product in which a motor or transformer is being used. To prevent the Turntable from being affected by the power transformer of your Amplifier, Receiver or Tape Deck, position the Turntable on the side opposite the power transformer.

Record Care
When handling a record, always hold it by its edge and center label area. Never touch the groove surface. Make it a habit to return records to their jackets immediately after use.

Store the records in a vertical position and avoid storing where subject to temperature extremes (whether high or low), excessive humidity or in direct sunlight.

MAINTENANCE
Dust and Dirt:
Records often carry dust-attracting static charges and should be cleaned before use. Playing a dirty record grinds dust against the record walls until it wears away the high frequencies and increases background noise. The most effective cleaners use an ionizing formula to remove the static charge and a cut velvet pad to lift particles from the groove.
Occasionally you will need to remove dust and dirt from the needle. For best results, use Radio Shack’s stylus cleaner and brush Cat. No. 42-1074. To clean the stylus, brush forward very gently to remove the dust. Brushing from front-to-back or side-to-side may cause permanent damage. Avoid touching stylus tip when cleaning.
Your local Radio Shack store has a complete line of stylus and record care accessories.

Cabinet and Dust Cover
If the cabinet or dust cover requires cleaning, use a soft, damp cloth (do not use solvents). Don’t use insecticide, benzine or thinner near the cabinet.

Stylus Replacement
The diamond stylus of the turntable can normally play for about 250 hours. However, when sound becomes noisy check the stylus for wear. If worn out, replace it (refer to Figure10). The worn stylus will damage the record permanently. It’s better to replace your stylus than to replace your record library.

Clean the Elevation-rubber
Clean the Elevation Rubber when you first operate the unit after purchasing, and periodically, by using a soft cloth dipped in alcohol and thoroughly wrung out. (See Figure11)

CAUTION
When the unit is operated initially after purchasing, after a long period of non-use or in winter, the Tonearm may not descend in initial action because of the property of the silicon oil used.
Gently hold the tonearm at the portion close to the counterweight and manually move it gently up and down.

When transporting your unit, remember to:
– attach the stylus protector
– remove the Turntable platter
– tighten the Tonearm with a red transportation screw. (See Figure13)
– fasten the Tonearm with vinyl tape, having the tonearm cushion placed under the arm pipe. (See Figure12)
Your Lab-2000 requires no lubrication whatsoever, and if you should attempt to do so you may damage it. If you have some difficulty bring to your local Radio Shack store for our Service Personnel to check over.

**SPECIFICATIONS**

**Type**

2 speeds, direct drive, linear tracking, automatic turntable

**Platter**

Aluminum alloy die-cast, 295mm outer diameter, 0.8kg

**Motor**

4 phase, 8 pole magnetic field coreless DC FG servo

**Speed**

2 speeds; 33-1/3 and 45 RPM

**Pitch control range**

±4%

**Signal-to-Noise ratio/rumble**

Better than 68dB (DIN B)

**Wow & Flutter**

Less than 0.05% (WRMS)

**Tonearm**

Static balanced

**Head shell**

Plug in type

**Effective length**

165mm

**Cartridge**

Dual magnetic AT-102EP

**Frequency response**

20-20,000Hz

**Output voltage**

3.5mV at 1kHz 35.4mm/sec.

**Channel difference**

2dB at 1kHz

**Channel separation**

25dB at 1kHz

**Tracking force**

1 – 1.5 grams

**Stylus tip**

0.4 x 0.7 mil elliptical diamond stylus

**Power source**

120 Volts, 60Hz AC (220/240V 50Hz for European/Australian models)

**Power consumption**

17 watts

**Dimensions**

4.53(H) x 13.78(W) x 14.96(D) inches

(115(H) x 350(W) x 380(D) mm)

**Weight**

17.63 lbs

(8 kg.)

**Accessories**

45 RPM adapter
RADIO SHACK LIMITED WARRANTY

This equipment is warranteed against defects for 1 year from date of purchase. Within this period, we will repair it without charge for parts and labor. Simply bring your sales slip as proof of purchase date to any Radio Shack store. Warranty does not cover transportation costs. Nor does it cover equipment subjected to misuse or accidental damage.

This Warranty gives you specific legal rights and you may also have other rights which vary from state to state.

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