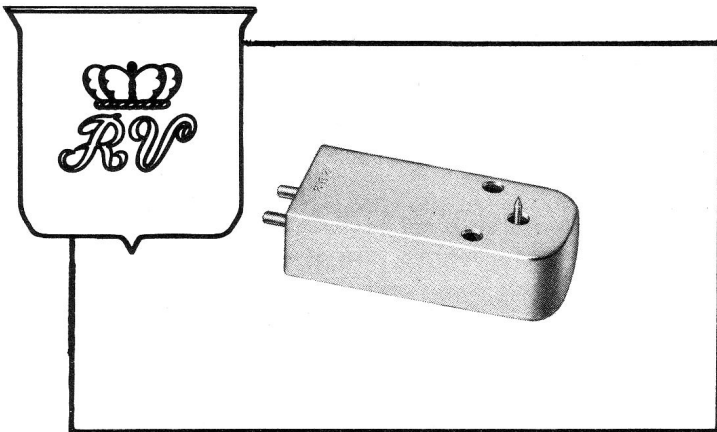


A VARIABLE RELUCTANCE PICKUP  
WIDE RANGE - FLAT RESPONSE  
REMOVABLE STYLUS

**CLARKSTAN**  
CORP.  
**TRIONIC CO. OF AMERICA**

Manufacturers of Fine Electronic, Industrial  
and Laboratory Equipment  
Los Angeles 34, Calif., U.S.A.

DATA UNIT #141-3



CLARKSTAN TYPE RV PICKUP

GENERAL CHARACTERISTICS

Offering an entirely new approach in magnetic reproducers, the CLARKSTAN 'RV' Pickup presents a high-fidelity, distortionless device of extreme simplicity and ruggedness. Featherweight needle force with an easily removable stylus, without a needle chuck, a variety of available impedances, combine with an unusually high output for a quality device, stable under all normal conditions of humidity and temperature. It affords a high degree of vertical compliance without vertical response.

**FLAT RESPONSE.** Exactly velocity responsive over the entire frequency range; meets FM specifications.

**LOW DISTORTION.** Faithfully reproduces fully modulated grooves at all frequencies.

**REMOVABLE STYLUS** may be withdrawn or inserted easily without the aid of tools.

**FEATHERWEIGHT.** 15 to 20 grams is sufficient to track all types of commercial records. A needle force as low as 7 grams may be used, depending on type of record and arm mounting.

**HIGH OUTPUT.** Up to 100 millivolts at 1000 cps.

**RUGGEDNESS.** Unbreakable under even the most severe working conditions. The neoprene needle sheath is mechanically and chemically inert.

**SIMPLICITY.** Only one moving part. The needle is the armature. It weighs 31 milligrams.

**LOW MECHANICAL NOISE.** Elimination of all needless mass has reduced needle talk to a minimum.

**IMPEDANCE CHOICE.** High impedance is the standard winding. May also be had in impedances of 5, 50, 250 and 500 ohms.

**STABILITY.** Stable under all normal working conditions of temperature and humidity. Excellent for tropical use.

**LENIENCY.** Lateral compliance offers long wear for records and needles, with consistent tracking and low needle noise.

**NO DAMPING PROBLEM.** The armature is inherently dampened in the neoprene needle sheath.

REMOVABLE STYLUS

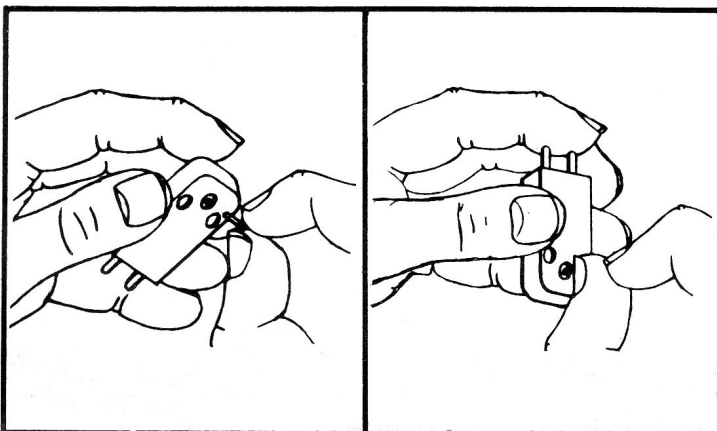


Fig. 1. The needle (armature) may be inserted or removed without the aid of tools.

Fig. 2. After insertion, the needle is seated with the thumbnail.

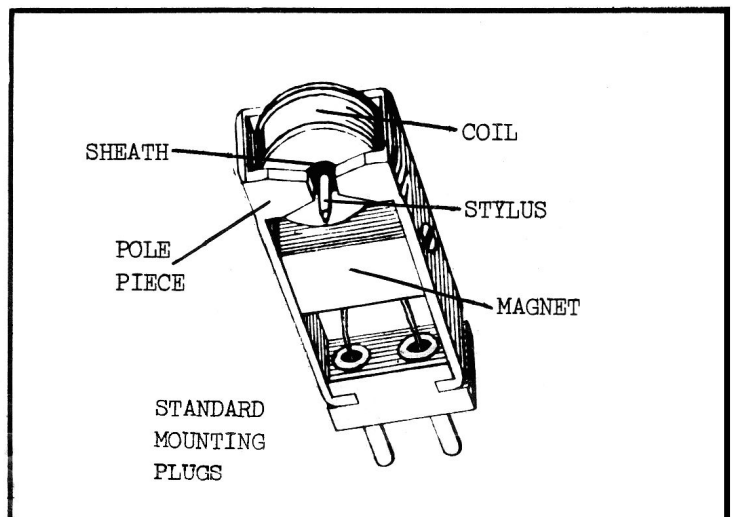


Fig. 3. Cutaway of Clarkstan RV Pickup.

## RESPONSE CURVE

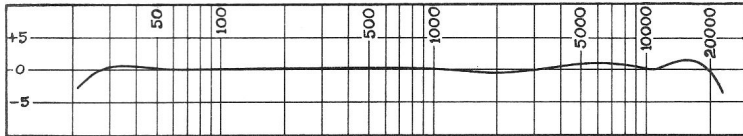


Fig. 4. Curve of frequency response with constant velocity signal over entire spectrum. When used with constant amplitude, there is an attenuation of 6 db per octave below the transition point.

## USE AS A SECONDARY SWEEP FREQUENCY SIGNAL SOURCE

The Clarkstan RV Pickup with base equalization in conjunction with the Clarkstan Sweep Frequency Transcription may be used as a sweep frequency source for use in testing audio equipment and components.

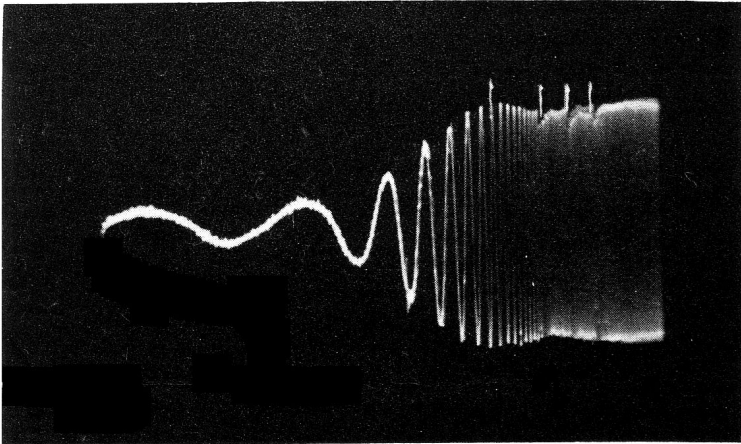


Fig. 5. Actual oscillogram of Clarkstan RV pickup unequalized when reproducing the Clarkstan Sweep Frequency Transcription.

## TYPICAL ROLL-OFFS

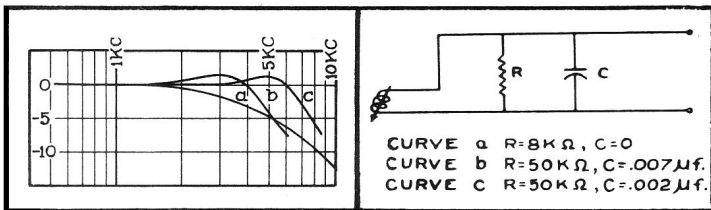


Fig. 6. Simple R & RC networks to produce various attenuation curves of the high frequencies.

## SPECIFICATIONS

**TYPE.** Magnetic, variable reluctance with removable stylus.

**ARMATURE.** Stylus is the armature; weight 31 mg, (.031 g.)

**RESPONSE.** Exactly velocity responsive to 15,000 cps.

**STYLUS.** Sapphire with standard .003" radius ball point, 50° cone angle. Other sizes are available.

**NEEDLE FORCE.** 20 grams optimum for commercial pressings.

**OUTPUT.** 60 millivolts at 1000 cps with lateral displacement of .001".

**IMPEDANCE.** Standard cartridge, high impedance; other impedances available on request.

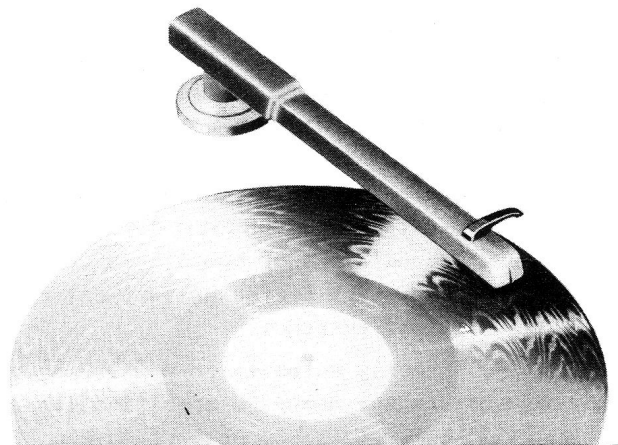
**RECOMMENDED TERMINATION.** High impedance.

**ELECTRICAL CHARACTERISTICS.** Inductance 350 millihenries at 1,000 cps; 'Q' 1.05; DC Resistance 1450 ohms.

**MOUNTING.** Standard mounting holes, 1/2" between centers 3-48 screws.

**WEIGHT.** 30 grams.

## CLARKSTAN RV PICKUP AND TRANSCRIPTION ARM



The RV Pickup mounted in a Clarkstan professional tone arm for records up to 17". The Arm has 2 sets of ball bearings in each of its two motions. This eliminates all horizontal and vertical friction which might cause mechanical bias on the armature of the pickup. Appropriately designed in cast aluminum with excellent balance between mass and low arm resonance. Tone Arm is 15 1/2" overall. Beautifully finished in either black or gray wrinkle with polished cueing lift, groove pointer and rest.

## NUMBER

- 211 RV Wide range Pickup & Transcription Tone Arm complete with standard sapphire stylus
- 201 RV Wide Range cartridge only (with standard sapphire stylus)
- Extra sapphire stylus (tubular shank) for Clarkstan RV Pickup,
  - No. 251.10 Sapphire with .0010" ball point radius.
  - No. 251.15 Sapphire with .0015" ball point radius.
  - No. 251.2 Sapphire with .0022" ball point radius.
  - No. 251.5 Sapphire with .0025" ball point radius.
  - No. 251.3 Sapphire with .003" ball point radius.

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