Form 13079

OVER THE SOLDERING IRON

RCA VICTOR

PREPARED FOR THE INFORMATION OF RCA VICTOR DISTRIBUTORS' SERVICE MANAGERS

SERVICE DIVISION-RCA MANUFACTURING COMPANY, INC.--CAMDEN, N.J.-NOVEMBER 10, 1938

INTERMITTENCY AND FREQUENCY SHIFT
Models 98K, 99K; 99T, 910KG, U-126 and U-128

In some chassis the temperature compensating capacitor C-28 associated with the "A" band oscillator circuit is dressed too close to the corner of lug L-17 and the insulative covering is pierced by the lug, causing intermittent operation or change of oscillator frequency. This source should be checked where trouble of such sort is evidenced; and the capacitor dressed safely away from the lug. It will be advisable to effect the same operation on any chassis being serviced for other reasons as a preventative measure.

PHONOGRAPH PLAY-THROUGH ON RADIO - Model U-125

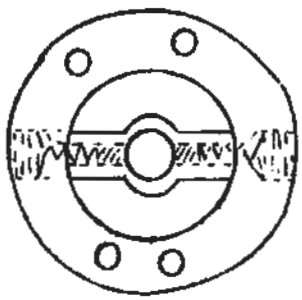
The Model U-125 radio-phono changeover circuit is such that phonograph reproduction will be heard when the push buttons are actuated for "Dial Tuning" or for "Push Button Tuning," only if the turntable is allowed to continue running and the needle is left in place. This condition should be of no importance to the customer, since there will be no occasion to have the mechanical end of the phonograph operating when "radio" is desired; however, if it is desirable to completely void the phono-crosstalk on a particular instrument, it may be done at a slight loss of high frequency response by removing capacitor C-15 and resistor R-11 from the circuit. Resistor R-11 has a gray body, red end, and yellow band; and is attached between the volume control tap and a terminal strip located adjacent to the tandem control assembly. Its removal effects the necessary change.

AVC TIMING ON SHORT WAVE
Models HF-6, HF-8, U-132 and U-134

In some localities, the fading of short wave signals has a very "rapid" or "abrupt" characteristic which becomes apparent as a "barking" effect in the reproduction of the program. Where this condition is noted, it is recommended that the speed of the AVC circuits be increased by changing the value of capacitor C-70 from .05 mfd to .01 mfd. Further improvement may possibly be obtained by the use of two antennas, spaced as far as possible from each other, erected in different directions, and connected multiple at the receiver.

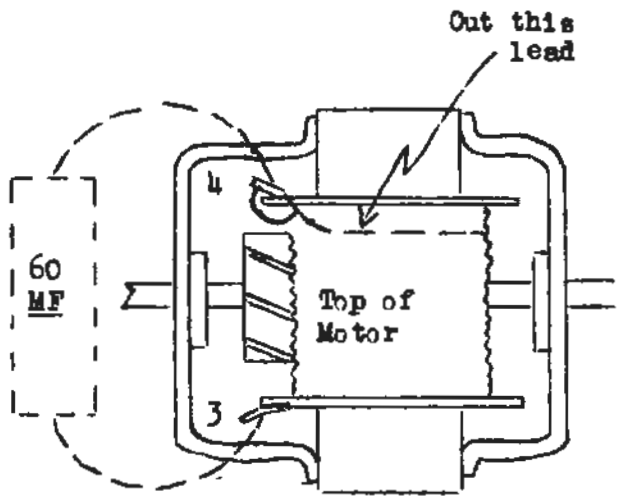
ELECTRIC TUNING MOTOR ADJUSTMENTS
1939 Instruments

A revised design of flywheel has been employed on the drive motor of current line electric tuning models. This flywheel is available for replacement use, and is stocked as part #31240. The illustration to the left shows the modified arrangement, which has two leather friction pads with adjustment provided for each. The use of two pads reduces the pressure required for ideal adjustment and thereby lessens wear and glazing to a point where stable operation and normal stopping of dial pointer continues indefinitely. These flywheels are also balanced so that each one passes a very stringent factory test; this being an influence in obtaining good adjustment as well as in keeping mechanical vibration to a minimum. When installing a flywheel, it is very important to have the leather friction pads thoroughly saturated with "Neatsfoot" oil; they should be soaked in this oil for at least 24 hours.



VIEW OF FLYWHEEL

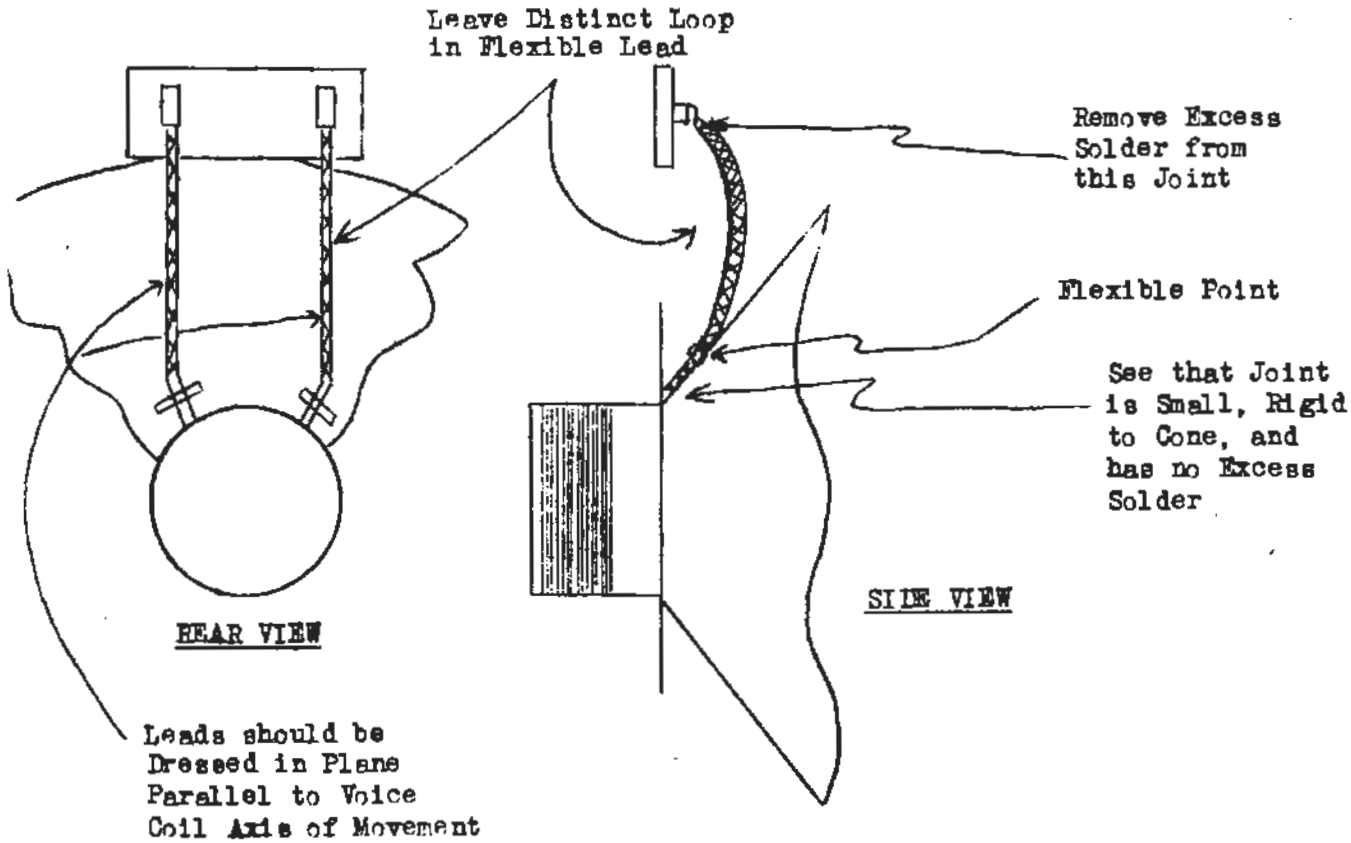
Some motors have a 60 mfd., 40 volt, Stock #32088 capacitor connected to the circuit as shown. This capacitor increases the torque of the motor and is primarily intended to increase rotor thrust for positive engagement of the arm and clutch. Should a motor which fails to "pull into" running position or which chatters in and out of engagement, be encountered in the field, the capacitor may be added as a remedy. It should be connected between the two top lugs of the motor (#3-#4) as shown, and the lead from the winding to #4 must be cut and secured clear of the circuit.



TOP VIEW OF TUNING MOTOR

INSTALLATION OF LOUDSPEAKER CONES

The illustration and notes below give the proper method of attaching and dressing voice coil flexible leads so as to prevent a "spiraling" or "twisting" effect during operation, which may ultimately result in lead breakage.



CAUTIONS

(1) It is important to avoid "stiffening" of the flexible lead at the ends by allowing solder to flow beyond the joint into braid.

(2) The cone end of the lead should be secured by a staple over a "flexible" point of the lead.

(3) See that the terminal strip or outer ends of the leads are secured in approximately the same plane with the stapled ends on the cone.

(4) A definite "loop" or "slack" must be provided in the leads; and must be in the plane of motion as illustrated above.

(5) The flexible leads on replacement cones are cut to the proper length, so as to allow for correct forming of a loop when one turn is made around soldering lug at the extreme end.

MOTOR BRACKET FLEXIBLE MOUNT - Model U-125

Mechanical hum resulting from motor vibration is generally governed by cabinet resonance, amount of torque in the particular motor, and the various mountings involved. Tolerances are maintained on each of these items so they balance out and no hum interference develops. An occasional instrument however, may have accentuated resonance or vibration which are additive in effect. In order to remedy this condition, a more flexible cushion should be used for supporting the motor bracket to the cabinet. Replacement Stock #31451 will include two sets of rubber cushions, one gray colored and the other black. The gray is quite flexible whereas the black is relatively stiff. The gray is for use on the Model U-125 particularly where mechanical hum is present, and the black is for use on other phonograph combinations where #31451 is specified.

MAGNETIC PICKUP MARKINGS

In order to simplify the identification of pickups and proper stock numbers for their components, the various pickup mechanisms to be manufactured for replacement in the future will have stampings similar to the following:-

PU 32205 -- The first numeral indicates the stock number of the pickup assembly.
A 14295 — The second group of numerals gives the stock number of the armature.
C 11732 — The third group of numerals identifies the stock number of the coil.

This marking system is being effected at once on pickups #32205, #31100, #32228 and #12538. It will be continued on any additional replacement pickups to be produced.

INCREASED SPRING TENSION ON LATCH BAR PUSH BUTTON SWITCH
Push Button Switch Assembly - Electric Tuning Models

The strength of the spring used at one end of the latch bar to retain the switch lever in the "on" position has been increased in order to obtain a more positive latching action. The present spring is available as stock #31970. Parts lists in service notes on models concerned should be accordingly changed.

SERVICE NOTE CORRECTIONS

Over The Soldering Iron - October 13, 1938 —— See page four and on circuit "F" remove section of circuit including pin 1, and resistor and pilot lamp connected between pin 1 and pin 8.

Models R-93B and R-93C —— For later production instruments with ring retaining pickup arm mounting use Stock #31744 Pickup arm pivot shaft and mounting base; and Stock #31745 Retaining ring and washer for pickup arm mounting.

Models U-132 and U-134 —— Replacement crystal pickup for these two instruments should be ordered as Stock #32632. This part is now specified in place of the original Stock #31156.

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