

## **GENERAL TESTS**

## 1. EXCESSIVE HUM—This condition can be caused

- a. Improperly adjusted or faulty hum controls. See subject 4, under Installation.
- b. Defective UX-280 or UY-227.c. Wire or terminal grounded to the frame, or open cir-
- cuit in any of the various ground connections.

  d. Shorted condenser, 10, Fig. 1, across UX-226 filament
- Open or shorted center tap resistor, 43, Fig. 1, across UX-226 filament supply.
- f. Shorted condenser, 64, Fig. 3, across power line in power-amplifier unit.
- g. Shorted condenser in condenser bank, 56, Fig. 2, of power-amplifier unit.

## 2. HOWL-Microphonic howl can be traced to:

- a. Defective Radiotron, particularly in the detector or audio stages.
- Improper neutralization. See subject 1 under Special Adjustments below.
- Speaker not felt insulated from baffle. Remove speaker and arrange felt properly.
- d. Open condenser, 15, Fig. 1.
- e. Loose metal perts such as shielding, screws, etc., or improperly centered cone may set up a howl or mechanical rattle. See subject 2 under Special Adjustments for method of centering cone.

## 3. DISTORTED REPRODUCTION—Distortion may be caused by any of the following:

a. Low emission Radiotron, particularly in the detector or in the power supply unit. For best reproduction the plate currents of the two UX-245 should balance within 2 milliamperes. Schematic Wiring Diagram Victor Radio and Victor Radio with Electrola

Model R-32, R-52, RE-45, RE-75

- Operation with volume control advanced too far on powerful local stations, causing overloading of the detector.
- c. Incorrect setting of the tone control in the base of the power-amplifier. See subject 5, under Installation.
- d. Improper neutralization. See subject 1, under Special Adjustments.

  Cons in speaker unit improperly centered. See sub-
- Cone in speaker unit improperly centered. See subject 2 under Special Adjustments.
- 4. NOISY REPRODUCTION—Station carrier noise, static, and power line disturbances should not be confused with noise which is set up within the receiver. This latter condition may be caused by any one of the following:
  - a. Velume Control. Dirt or corrosion on the resistance wire or contact arms of the volume control will produce noise when the control is operated. This condition can usually be corrected by rubbing the parts lightly with very fine sandpaper and then cleaning with gasoline.
  - b. Shorted Tuning Condenser. If the plates of one or more of the tuning condensers are shorted, noise will be produced when the tuning lever is operated. If such a condition is found, the faulty condenser should be replaced.
  - c. Intermittent short or open circuit in any of the various soldered connections or in power switch.
  - d. High resistence grid leak. Any of the grid leaks which have developed an excessive high resistance will produce a "frying noise."
  - Faulty power or audio transformer will also produce this same type noise.



Internal Connections of Filter Condenser Bank