

"Lekmek" A.C. Broadcast Model 504

(Circuit diagram will be found on Page 289.)

Lekmek model "504" is a five-valve, A.C. operated broadcast receiver fitted with three controls—volume, tuning, tone (continuous)—and using an 8-inch, 2,500 ohms field, loudspeaker. The circuit arrangement illustrated is used in two receivers known as "504M" and "504C," a mantel and a console, respectively. In addition, there is a variation of the basic circuit arrangement in which A.V.C. is added by disconnecting the 6A7 and 6D6 grid returns from earth; connecting them together and then to the detector diode load through a 500,000 ohms resistor; the grid return junction is then bypassed to earth by an 0.1 mfd. condenser

—no other changes are made in the circuit. Two receivers incorporate this revised chassis and these are known as "504MA" and "504CA," respectively.

The circuit arrangement is quite straightforward and it only remains to tabulate the operating voltages and component values. The operating voltage measurements were made under standard conditions with the volume control (converter and I.F. bias type) full on.

6A7, Frequency Converter: Plate, 225 v.; screen, 110 v.; cathode, 2 v.; osc. anode grid, 180 v. Plate current, 4 mA.

6D6, 458 KC. I.F. Amplifier: Plate, 225 v.; screen, 110 v.; cathode, 2 v. Plate current, 9 mA.

75, Detector and A.F. Amplifier (and A.V.C. Rectifier in models "504MA" and "504CA"): Plate, 110 v.; cathode, 1 v. Plate current, 0.75 mA.

42, Output Pentode: Plate, 215 v.; screen, 225 v.; cathode, 14.5 v. Plate current, 32 mA.

COMPONENT VALUES.

RESISTORS.

R1, R11—100,000 ohms, 1 W.; **R2**—100 ohms, wire-wound; **R3, R4**—20,000 ohms, 1 W.; **R5**—10,000 ohms potentiometer, volume control; **R6, R14**—15,000 ohms, 1 W.; **R7**—1,200 ohms, wire-wound; **R8, R9, R13**—500,000 ohms, 1 W.; **R10**—500,000 ohms, tone control; **R12**—425 ohms, wire-wound.

CONDENSERS.

C1, C2—sections of 2-gang variable; **C3**—7 plate padder; **C4, C7**—0.1 mfd., tubular; **C5, C10, C13**—0.01 mfd., mica; **C6**—0.00025 mfd., mica; **C8, C14**—25 mfd., 25 v., electro.; **C9**—0.0005 mfd., mica; **C11**—0.001 mfd., mica; **C12**—0.05 mfd., tubular; **C17**—0.5 mfd., tubular; **C15, C16**—8 mfd., 500 v., electros.

"Lekmek" A.C. Operated Broadcast Model 504

