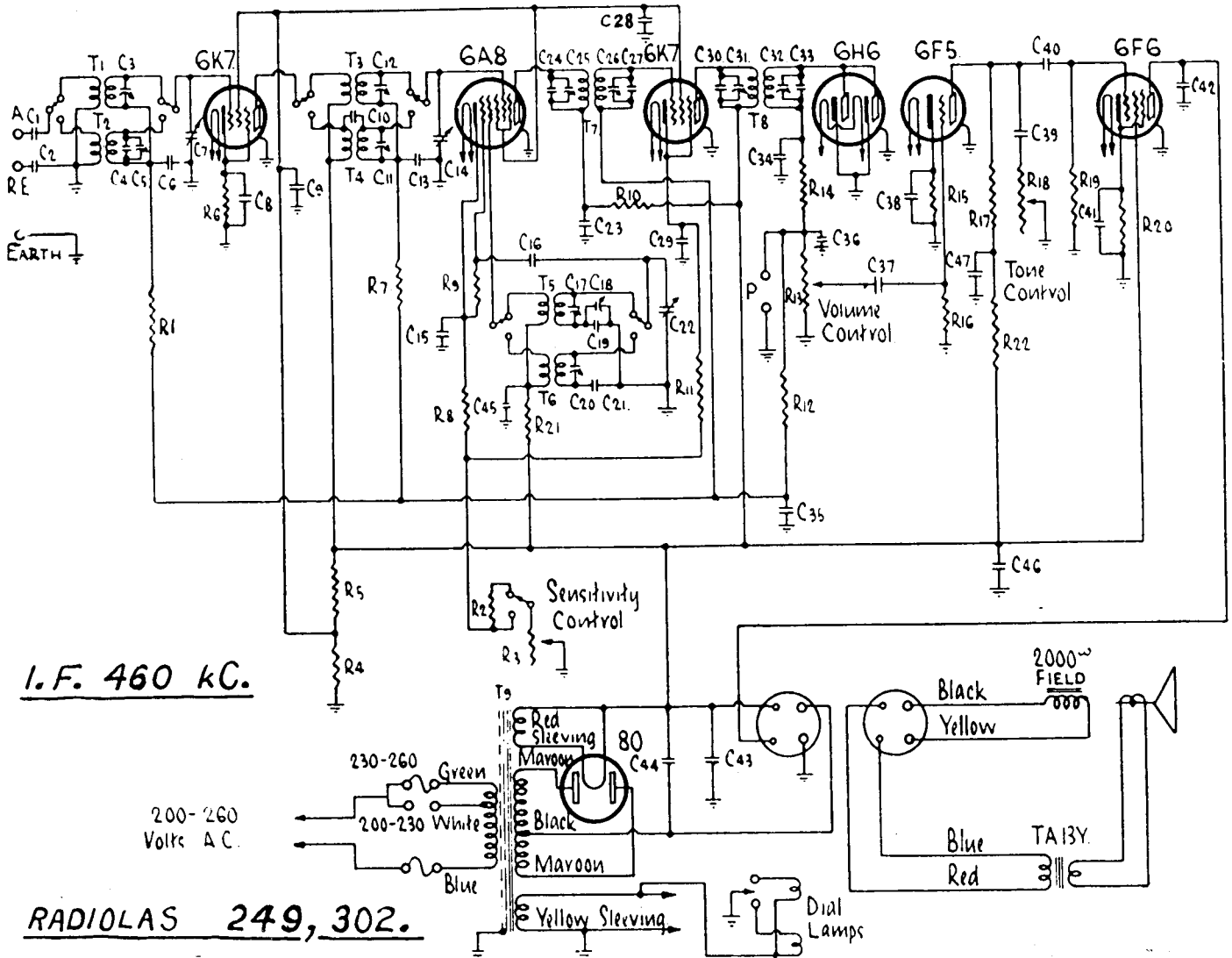


"Radiola" A.C. Operated Dual-Wave Models 249 and 302



I.F. 460 kC.

200-260
Volts A.C.

RADIOLAS 249, 302.

RADIOLA "249"

1936 CONSOLE MODEL

RADIOLA "302"

1936 RADIOGRAM MODEL

Identical chassis, both use 10-inch, 2,000 ohms field, loudspeakers.

COMPONENT VALUES.

The numbers in parenthesis following component indices are manufacturer's part numbers.

RESISTORS.

R1, R7, R14—100,000 ohms, $\frac{1}{2}$ W.; R2, R8, R10—300 ohms, $\frac{1}{2}$ W.; R3 (1578)—3,000 ohms, variable, sensitivity control; R4, R5—11,000 ohms, 3 W.; R6, R11—600 ohms, $\frac{1}{2}$ W.; R9—60,000 ohms, $\frac{1}{2}$ W.; R12—1.75 megohms, $\frac{1}{2}$ W.; R13 (1668)—300,000 ohms, volume control; R15—3,000 ohms, $\frac{1}{2}$ W.; R16, R19—500,000 ohms $\frac{1}{2}$ W.; R17—250,000 ohms, 1 W.; R18 (1668)—300,000 ohms, variable, tone

control; R20—400 ohms, 1 W.; R21—20,000 ohms, $\frac{1}{2}$ W.; R22—50,000 ohms, $\frac{1}{2}$ W.

CONDENSERS.

C1, C2—500 mmfd., mica, high voltage test; C3, C5, C11, C12, C17, C20—5/20 mmfd., mica, coil trimmers; C4—10 mmfd., mica, S/W aer. coil trimmer shunt; C6, C13, C23, C35, C37, C40, C45—0.05 mfd., paper; C7, C14, C22 (1754)—sections of 3-gang variable; C8, C9, C15, C28, C29—0.1 mfd., paper; C10—10 mmfd., mica; C16—50 mmfd., mica; C18 (1153)—10/50 mmfd., mica, B/C. padder; C19 (1153)—390 mmfd., mica, B/C. padder shunt; C21—2,800 mmfd., mica, S/W. padder; C24, C27, C30, C33—50 mmfd., mica, I.F.T. trimmer shunts; C25, C26, C31, C32—10/50 mmfd., mica, I.F.T. trimmers, C34—200 mmfd., mica; C36—100 mmfd., mica; C38—5 mfd., 25 v., W., electro; C39—0.01 mfd., paper; C41—24 mfd., 25 v., W., electro; C42—0.005 mfd., paper; C43, C44 (1571)—8 mfd., 500 v., W., electro; C46, C47—0.5 mfd., paper.

COILS, ETC.

T1 (2018)—B/C aer. coil; T2 (2018)—S/W. aer. coil; T3 (2022)—B/C R.F. coil; T4 (2022)—S/W. R.F. coil; T5 (2020)—B/C. osc. coil; T6 (2020)—S/W. osc. coil; T7 (1898)—460 kC., 1st I.F. transformer; T8 (1899)—460 kC., 2nd I.F. transformer; T9 (1805, 1806, 1807)—power transformers for 50 cycles, 40 cycles, and 110 v. operation respectively.

OPERATING VOLTAGES.

The following measurements were made with a "1,000 ohms per volt" meter, and voltages are those existing between the socket contact indicated and chassis. The receiver was operating, under "no signal" conditions, from a 240 v. A.C. supply with all controls turned to their maximum clockwise position. Those readings shown in parenthesis were taken with the wave-change switch in the "S/W." position, whereas the alternative readings were made with the receiver on "B/C."; all other measurements are unaffected by the position of the wave-change switch.

6K7, R.F. Amplifier: Plate, 240 v.; screen, 100 v.; cathode, 3 v. Plate current, 6 mA.

6A8, Frequency Converter: Plate, 240 v.; screen, 100 v.; cathode, 6 v. (3) osc. anode grid, 170 v. Plate current, 3 mA. (4 mA.).

6K7, 460 kC., I.F. Amplifier: Plate, 240 v.; screen, 100 v.; cathode, 6 v. (3 v.). Plate current, 4 mA. (6 mA.).

6H6, Diode Detector, and A.V.C. Rectifier: Diode plates through T8, R14, R13 to chassis; cathode, zero.

6F5, A.F. Voltage Amplifier: Plate, 90 v.; cathode, 1.5 v. Plate current, 0.4 mA.

6F6, Output Pentode: Plate, 220 v.; screen, 235 v.; cathode, 15 v. Plate current, 30 mA.

80, Rectifier: A.C. volts per plate (measured from C.T. of power transformer, secondary), 340 v.; total current, 60 mA.