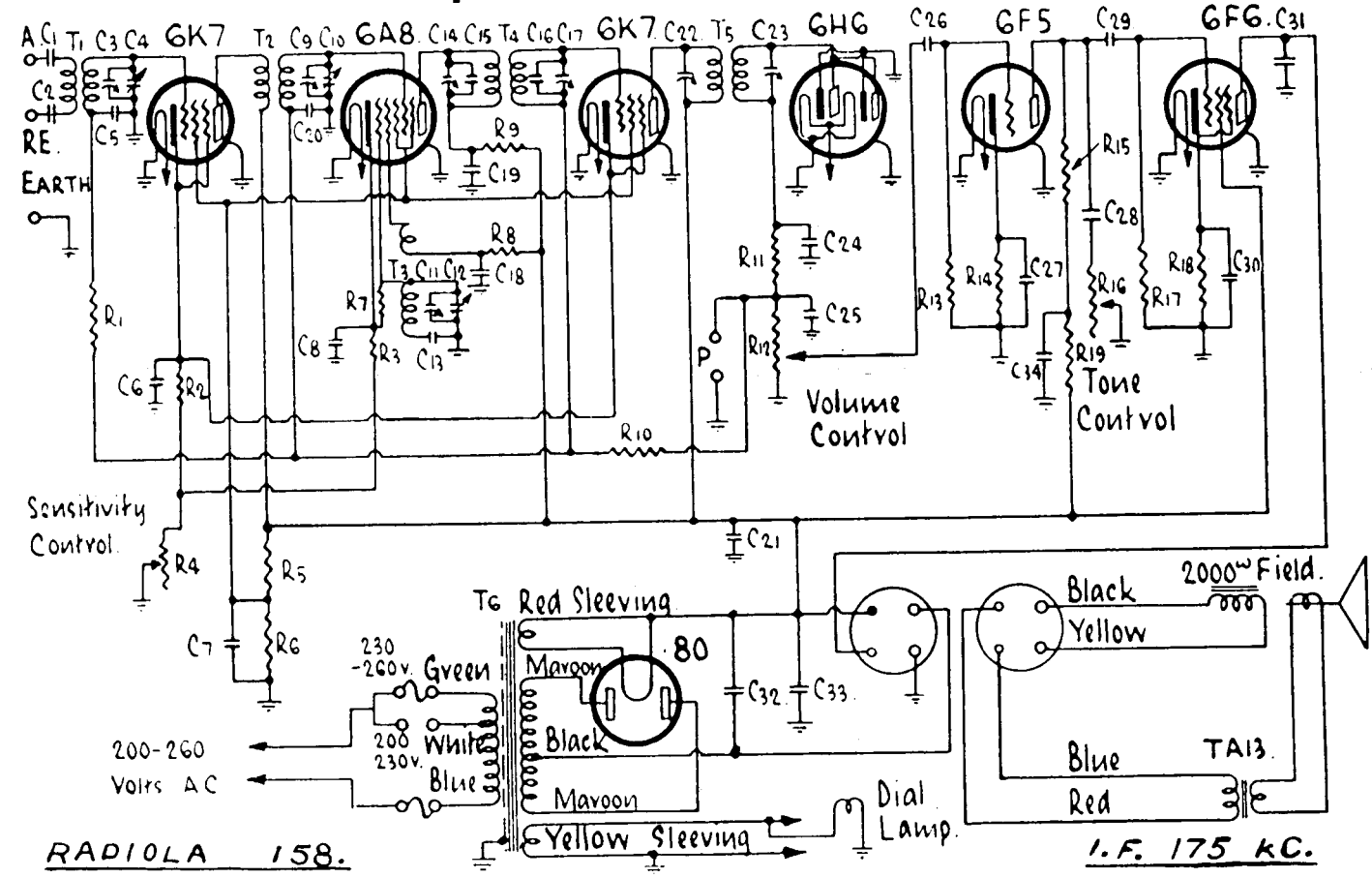
"Radiola" A.C. Operated Broadcast Console Model 158



1936 Console Model

Uses 10-inch, 2,000 ohms field, loudspeaker.

Note use of metal-envelope valves in all sockets except rectifier.

COMPONENT VALUES.

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

RESISTORS.

R1, R11—100,000 ohms, ½ W.; **R2**—900 ohms, ½ W.; **R3**—800 ohms, ½ W.; **R4** (1893)—1,000 ohms, variable, sensitivity control; **R5, R6**—11,000 ohms, 3 W.; **R7**—60,000 ohms, ½ W.; **R8**—20,000 ohms, ½ W.; **R9**—300 ohms, ½ W.; **R10**—1.75 megohms, ½ W.; **R12** (1668)—300,000 ohms, volume control; **R13, R17**—500,000 ohms, ½ W.; **R14**—3,000 ohms, ½ W.; **R15**—250,000 ohms, 1 W.; **R16** (1668)—300,000 ohms, variable, tone control; **R18**—400 ohms, 1 W.; **R19**—50,000 ohms, ½ W.

CONDENSERS.

C1, C2—500 mmfd., mica, high voltage test; **C3, C9, C11**—10/50 mmfd., mica, coil trimmers; **C4, C10, C12** (1515)—sections of 3-gang variable; **C5, C18, C19, C20, C26, C29**—0.05 mfd., paper; **C6, C7, C8**—0.1 mfd., paper; **C13**—1,050 mmfd., padder; **C14, C17, C23**—10/50 mmfd., mica, I.F.T. trimmers; **C15, C16**—85 mmfd., mica, I.F.T. trimmer shunts; **C21, C34**—0.5 mfd., paper; **C22**—30/70 mmfd., mica, I.F.T. trimmer; **C24, C25**—200 mmfd., mica; **C27**—5 mfd., 25 v., W., electro.; **C28**—0.01 mfd., paper; **C30**—25 mfd., 25 v., W., electro. **C31**, 0.005 mfd., paper; **C32, C33**—8 mfd., 500 v., W., electro.

COILS, ETC.

T1 (1560)—aer. coil; **T2** (1564)—R.F. coil; **T3** (1562)—osc. coil; **T4** (1812)—175 kC., 1st I.F. transformer; **T5** (1813)—175 kC., 2nd I.F. transformer; **T6** (1805, 1806, 1807)—power transformers for 50 cycle, 40 cycle, 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.

6K7, R.F. Amplifier: Plate, 240 v.; screen, 100 v.; cathode, 6 v. Plate current, 4 mA.

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

6K7, 175 kC., I.F. Amplifier: Plate, 240 v.; screen, 100 v.; cathode, 6 v. Plate current, 4 mA.

6H6, Diode Detector, and A.V.C. Rectifier: Diode plates returned to chassis through T5, R11, and R12; cathodes, 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, 240 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 curent, 60 mA.