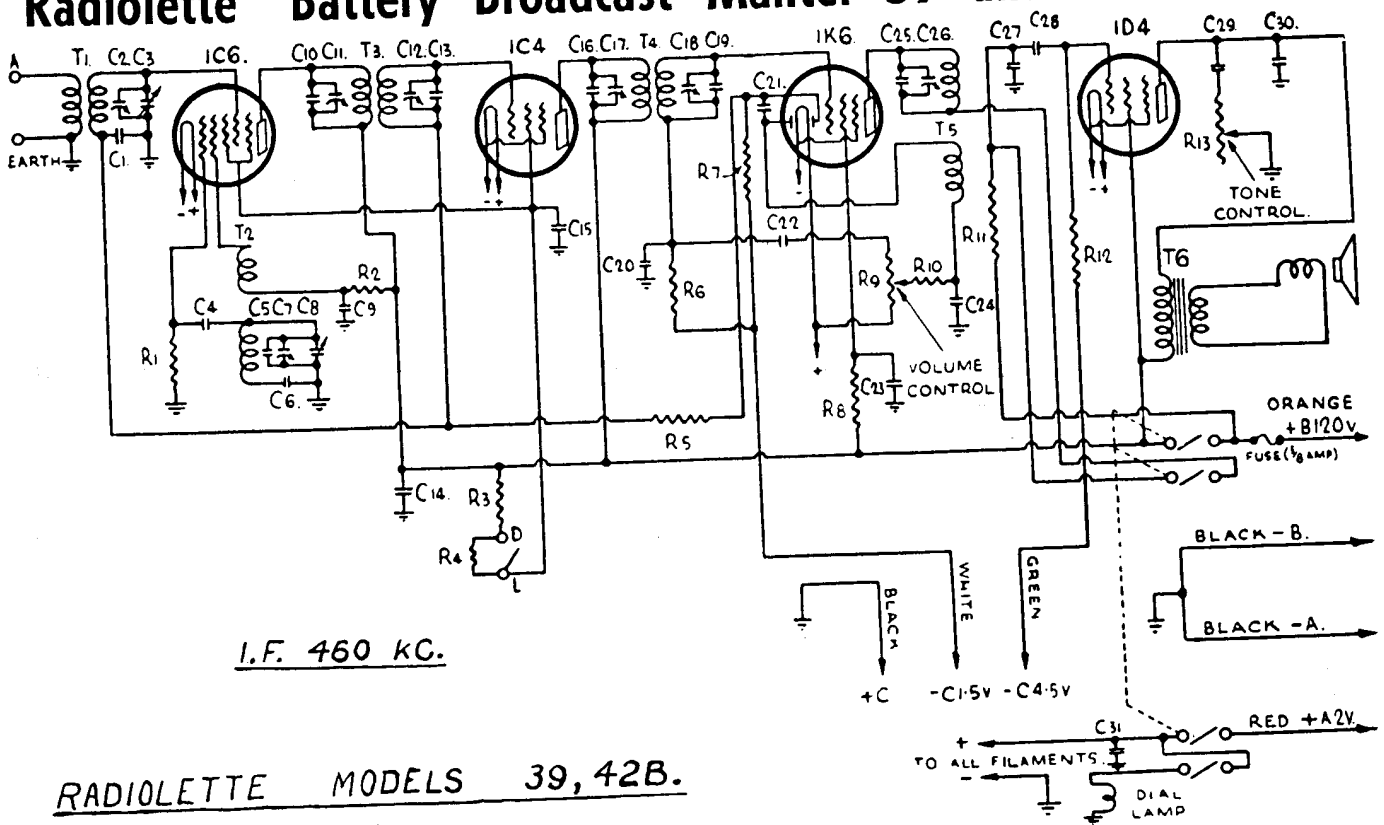


# "Radiolette" Battery Broadcast Mantel 39 and Console 42B



I.F. 460 KC.

RADIOLETTE MODELS 39, 42B.

## RADIOLETTE "39" 1937 Mantel Model

Uses 6-inch, permag. loudspeaker.

## RADIOLETTE "42B" 1937 Console Model

Uses 8-inch, permag. loudspeaker.

### COMPONENT VALUES.

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

### RESISTORS.

R1—60,000 ohms,  $\frac{1}{2}$  W.; R2, R4—50,000 ohms,  $\frac{1}{2}$  W.; R3—75,000 ohms,  $\frac{1}{2}$  W.; R5, R6, R7—1.75 megohms,  $\frac{1}{2}$  W.; R8—250,000 ohms, 1 W.; R9 (1507)—500,000 ohms, volume control; R10—300,000 ohms,  $\frac{1}{2}$  W.; R11—75,000 ohms, 1 W.; R12—1 megohm,  $\frac{1}{2}$  W.; R13 (2762)—100,000 ohms, variable, tone control.

### CONDENSERS.

C1, C9, C22, C28—0.05 mfd., paper; C2, C7—10/50 mmfd., mica, coil trimmers; C3, C8 (2891)—sections of 2-gang variables; C4—50 mmfd. (D), mica; C5—15 mmfd. (C), mica, B/C trimmer shunt; C6—410 mmfd., B/C

padder; C10, C13, C16, C19, C25—130 mmfd. (H), mica (I.F.T. trimmer shunts); C11, C12, C17, C18, C26—10/50 mfd., mica, I.F.T. trimmers; C14, C31—0.5 mfd., paper; C15, C23—0.1 mfd., paper; C20, C24—200 mmfd. (J), mica; C21, C27—700 mmfd., mica; C29—0.035 mfd., paper; C30—0.005 mfd., paper.

### COILS, ETC.

T1 (1560)—aer. coil; T2 (2893)—osc. coil; T3 (1523A)—1st I.F. transformer, 460 kC.; T4 (1523B)—2nd I.F. transformer, 460 kC.; T5 (1530A)—3rd I.F. transformer, 460 kC.; T6 (TG53, TG131)—speaker transformers for models 39 and 42B 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" condition with all control turned to their maximum clockwise position, and the sensitivity switch in the "distance" (D) position. Grid voltages were measured at their source, and not at the socket contacts.

1C6, Frequency Converter: Plate, 120 v.; screen, 45 v.; grid, —1.5 v.; osc. anode grid, 55 v. Plate current, 1 mA.

1C4, 460 kC., 1st I.F. Amplifier: Plate, 120 v.; screen, 45 v.; grid, —1.5 v. Plate current, 1.5 mA.

1K6, 460 kC., 2nd I.F. Amplifier, Detector, A.V.C. Rectifier, and A.F. Voltage Amplifier: Plate, 55 v.; screen, 50 v.; grid, —1.5 v. Plate current, 0.8 mA.

1D4, Output Pentode: Plate, 115 v.; screen, 120 v.; grid, —4.5 v. Plate current, 6 mA.

"B" battery drain at 120 v., 12 mA.; "A" battery drain at 2 v., 0.6 amperes (dial lights off), 0.66 amperes (dial lights on).

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T9 (TG52, TG113)—speaker transformers for models 38, 41 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 the sensitivity switch in the "distance" (D) position. Those readings in parenthesis were made with the wave-change switch in the "S/W." position, whilst the alternative readings were taken with the receiver on "B/C."; all other measurements are unaffected by the position of the wave-change switch.

6A7, Frequency Converter: Plate, 240 v.; screen, 55 v. (50 v.); cathode, 4 v. (3 v.); osc. anode grid, 170 v. Plate current, 1.5 mA. (3 mA.).

6D6, 460 kC. 1st I.F. Amplifier: Plate, 240 v.; screen, 55 v.; cathode, 3 v. Plate current, 3 mA.

6B7, 460 kC. 2nd I.F. Amplifier, Detector, A.V.C. Rectifier, and A.F. Voltage Amplifier: Plate, 60 v.; screen, 30 v.; cathode, 1.5 v. Plate current, 1 mA.

42, Output Pentode: Plate, 220 v.; screen, 240 v.; cathode, 15 v. Plate current, 30 mA.

80, Rectifier: A.C. volts per plate, 300 v.; total current, 50 mA.; voltage drop across loudspeaker field, 80 v.