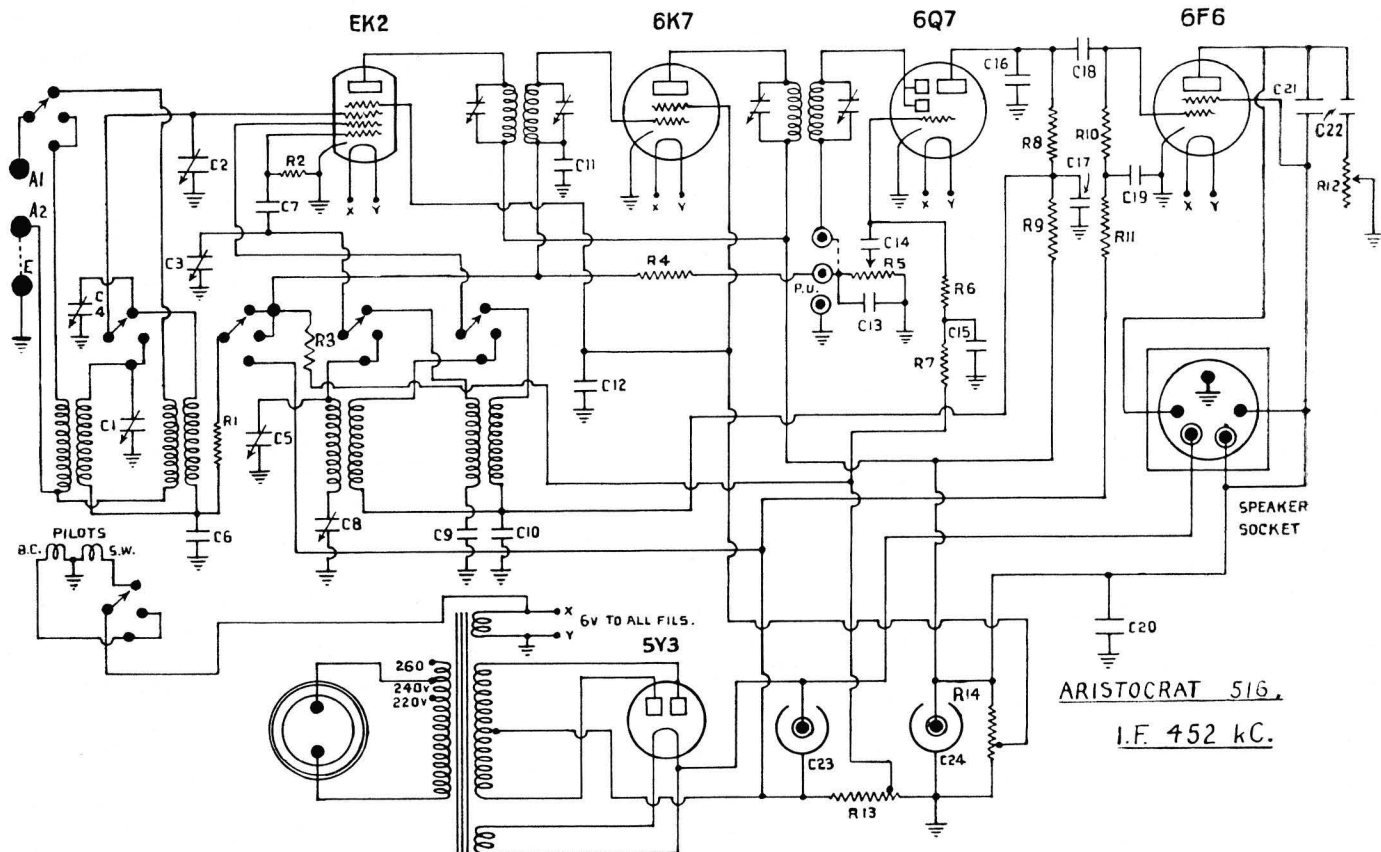


# "Aristocrat" A.C. Operated Dual-Wave Console Models 516 and 516 S



## Aristocrat Model 516

1937 Console, uses 10-inch, 2,500 ohms field, loudspeaker.

Similar circuit in mantel model "517".

### COMPONENT VALUES.

#### RESISTORS.

R1, R6, R7, R10, R11—500,000 ohms,  $\frac{1}{2}$  W.; R2—50,000 ohms,  $\frac{1}{2}$  W.; R3, R4—1 megohm,  $\frac{1}{2}$  W.; R5—500,000 ohms, volume control; R6—250,000 ohms, 1 W.; R12—20,000 ohms, variable; R13—320 ohms, tapped at 30; R14—15,000 ohms, voltage divider.

#### CONDENSERS.

C1, C4, C5—2-plate coil trimmers; C2, C3—sections of 2-gang variable; C6, C10, C18—0.01 mfd., mica; C7, C13, C16—250 mmfd., mica; C8—B.C. padder; C9—0.01 mfd., mica, S.W. padder; C11, C12, C15, C19—0.1 mfd., 400 v.; C14—0.01 mfd., 600 v.; C17—0.5 mfd., 400 v.; C20, C22—0.1 mfd., 600 v.; C21—0.006 mfd., mica; C23, C24—8 mfd., 500 v., electro.

## Aristocrat Model 511

1936 Console, uses 10-inch, 2,500 ohms field, loudspeaker. Meter-type Tuning Indicator is connected across R16 in circuit shown on facing page.

### COMPONENT VALUES.

#### RESISTORS.

R1, R9—50,000 ohms; R2—25,000 ohms; R3—1 megohm; R4, R15—300 ohms; R5—15,000 ohms, voltage divider; R6—500,000 ohms, volume control; R7, R16—5,000 ohms, R8, R11, R12—500,000 ohms; R10—100,000 ohms; R13—20,000 ohms, variable; R14—320 ohms.

#### CONDENSERS.

C1, C2, C3—sections of 3-gang variable; C4—variable padder; C5, C6, C7, C8—I.F.T. trimmers; C9—250 mmfd.; C10—800 mmfd., padder shunt; C11, C12, C13, C14, C15, C21, C24, C25, C29, C30—0.1 mfd.; C16, C20—0.01 mfd.; C17—100 mmfd.; C18—0.5 mfd.; C19, C28—500 mmfd.; C22, C23—0.006 mfd.; C26, C27—8 mfd., electro.

### OPERATING VOLTAGES.

Readings taken with a "1,000 ohms per volt" meter, volume control full on with no signal tuned in.

6A8 Frequency Converter: Plate, 240 v.; screen, 80 v.; cathode, 2.4 v.; osc. anode grid, 160 v.; osc. grid, -4 v. (approx.). Cathode current, 7.7 mA.

6K7, I.F. Amplifier, 210 kC.: Plate, 240 v.; screen, 80 v.; cathode, 2 v. Cathode current, 6.5 mA.

75, Detector, A.V.C. Rectifier and A.F. Amplifier: Plate, 140 v.; cathode, 1.3 v. Plate current, 0.2 mA.

6F6, Output Pentode: Plate, 220 v.; screen, 240 v.; grid, -18.5 v. Cathode current, 27 mA.

5Y3, Rectifier: A.C. voltage per plate 380 v.; output voltage from cathode, 400 v. Total cathode current, 55 mA.

#### ALTERATIONS.

In later models of this series, that is on and after 11/5/36, an alteration from automatic to fixed bias is now obtained from a 30 ohms tap on R14. This necessitated the addition of a de-coupling resistor of 500,000 ohms (connected between the lower end of R8 and the 30 ohms tap), with its associated de-coupling condenser of 0.1 mfd. connected from the junction of R8 and the de-coupling resistor to earth. At the same time C22 (0.006 mfd.) was altered to 0.1 mfd.

## Aristocrat Model 553V

1937 Console, uses 10-inch permag. loudspeaker and vibrator pack shown on page 200. Circuit of this model appears on facing page.

### COMPONENT VALUES.

#### RESISTORS.

R1—100,000 ohms,  $\frac{1}{2}$  W.; R2, R9—50,000 ohms,  $\frac{1}{2}$  W.; R3, R6—1 megohm,  $\frac{1}{2}$  W.; R4—1 megohm, 1 W.; R5—100,000 ohms,  $\frac{1}{2}$  W.; R7—500,000 ohms, volume control; R8, R16—500,000 ohms,  $\frac{1}{2}$  W.; R10—8.3 ohms, w.w.; R11—16.6 ohms, w.w.; R12—500,000 ohms,  $\frac{1}{2}$  W.; R13—250,000 ohms, 1 W.; R14—100,000 ohms, 1 W.; R15—50,000 ohms, 1 W.; R17—500,000 ohms, variable.

#### CONDENSERS.

C1, C2, C3—sections of 3-gang variable; C4, C6, C9, C10—2-plate coil trimmers; C5—0.05 mfd., 400 v.; C7, C8, C17, C26—0.5 mfd., 400 v.; C11—500 mmfd., mica; B.C. padder shunt; C12—7-plate B.C. padder; C13, C16, C18, C19, C23, C25, C32—0.1 mfd., 400 v.; C14, C22—100 mmfd. mica; C15—0.01 mfd., S.W. padder; C20—2-plate variable; C21, C29—0.01 mfd., mica; C24—500 mfd., 12 v.; C27—100 or 250 mmfd., mica; C28—400 mmfd., mica; C30—0.002 mfd., mica; C31—0.02 mfd.