

"Aristocrat" A.C. Operated Dual-Wave Console Model 801

1937 Console, uses 12-inch 1,500 ohms field, loudspeaker.

COMPONENT VALUES.

RESISTORS.

R1—100,000 ohms; R2, R8, R15—500,000 ohms, $\frac{1}{2}$ W.; R3—50,000 ohms, $\frac{1}{2}$ W.; R4, R5, R7, R10—1 megohm, $\frac{1}{2}$ W.; R6—500,000 ohms, volume control; R9—240 ohms, tapped at 40; R11—75,000 ohms; R12—10,000 ohms, 1 W.; R13—100,000 ohms, 1 W.; R14, R18—50,000 ohms, 1 W.; R16—950 ohms, w.w.; R17—20,000 ohms, variable.

CONDENSERS.

C1, C2—sections of 2-gang variable; C3, C5, C6—2-plate coil trimmers; C4, C11, C18—0.01 mfd., mica; C7, C14—100 mmfd., mica; C8—B.C. padder; C9, C10, C15, C22, C29—0.1 mfd., 400 v.; C12—0.008 mfd., mica, S.W. padder; C13—0.05 mfd., 600 v.; C16—0.001 mfd., mica; C17, C19—0.5 mfd., 400 v.; C20—25 mfd., 25 v., electro; C21—0.1 mfd., 600 v.; C23, C24—0.006 mfd., mica; C25—16 mfd., 500 v., electro; C26, C27, C28—8 mfd., 500 v., electro.

(Further data on model "801" will be found on page 207.)

"Aristocrat" Model 518

1937 Console, uses 8-inch, 2,500 ohms field, loudspeaker. Circuit appears on facing page.

COMPONENT VALUES.

RESISTORS.

R1—50,000 ohms, $\frac{1}{2}$ W.; R2, R3—1 megohm, $\frac{1}{2}$ W.; R4—500,000 ohms, volume control; R5, R6, R9, R10—500,000 ohms, $\frac{1}{2}$ W.; R7—250,000 ohms, 1 W.; R8—10,000 ohms, 1 W.; R11—20,000 ohms, variable; R12—320 ohms, tapped at 30; R13—15,000 ohms, voltage divider.

CONDENSERS.

C1, C2—sections of 2-gang variable; C3, C5—2-plate coil trimmers; C4—100 or 250 mmfd., mica; C6—padder; C7, C8, C11, C15—0.1 mfd., 400 v.; C9—250 mmfd., mica; C10—0.01 mfd., 600 v.; C12—500 mmfd., mica; C13, C17—0.1 mfd., 600 v.; C14—0.01 mfd., mica; C16—0.006 mfd., mica; C18, C19—8 mfd., 500 v., electro.

"Aristocrat" Model 553

1937 Console, uses 10-inch permag. loudspeaker. Circuit appears on facing page.

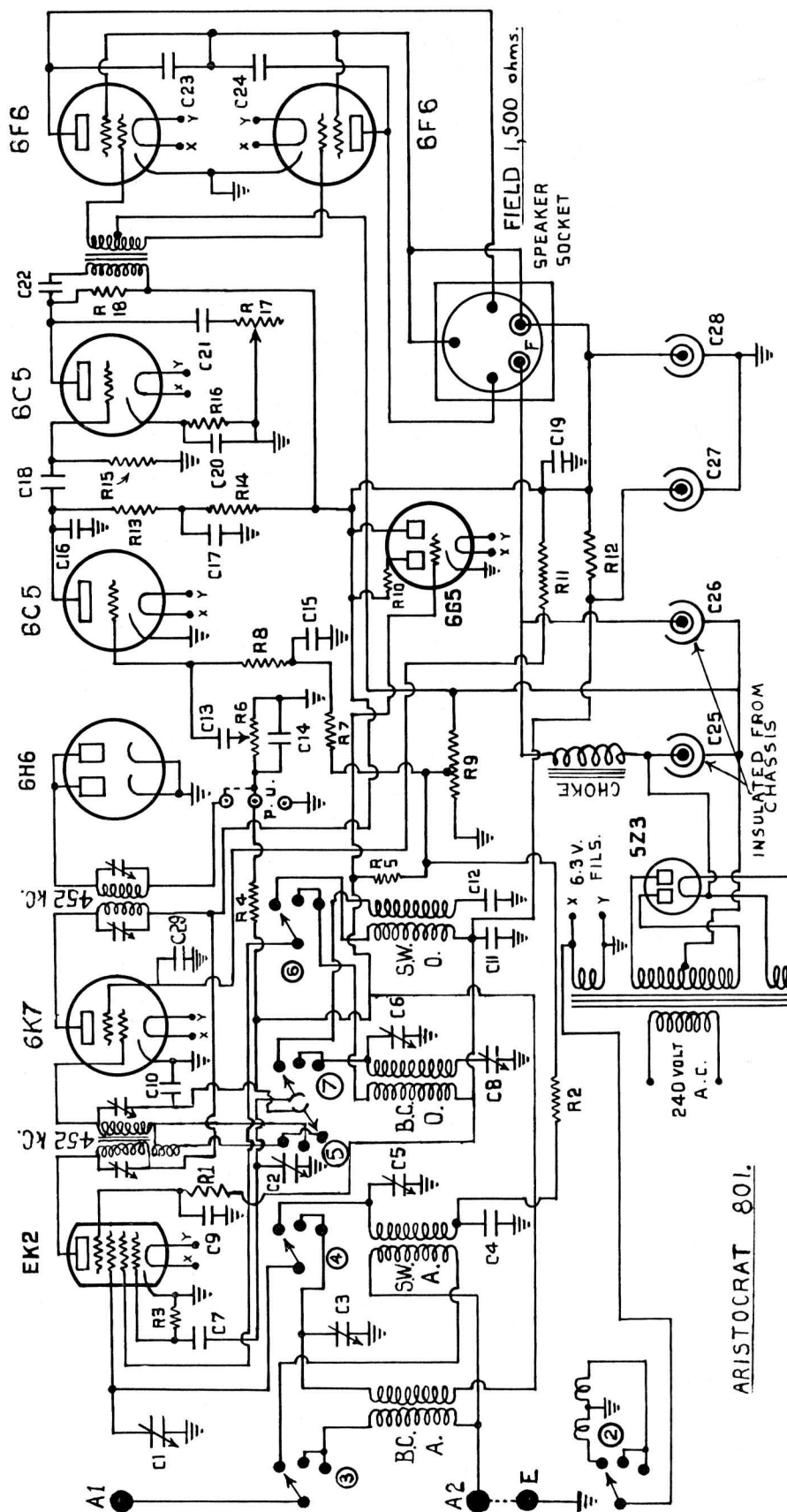
COMPONENT VALUES.

RESISTORS.

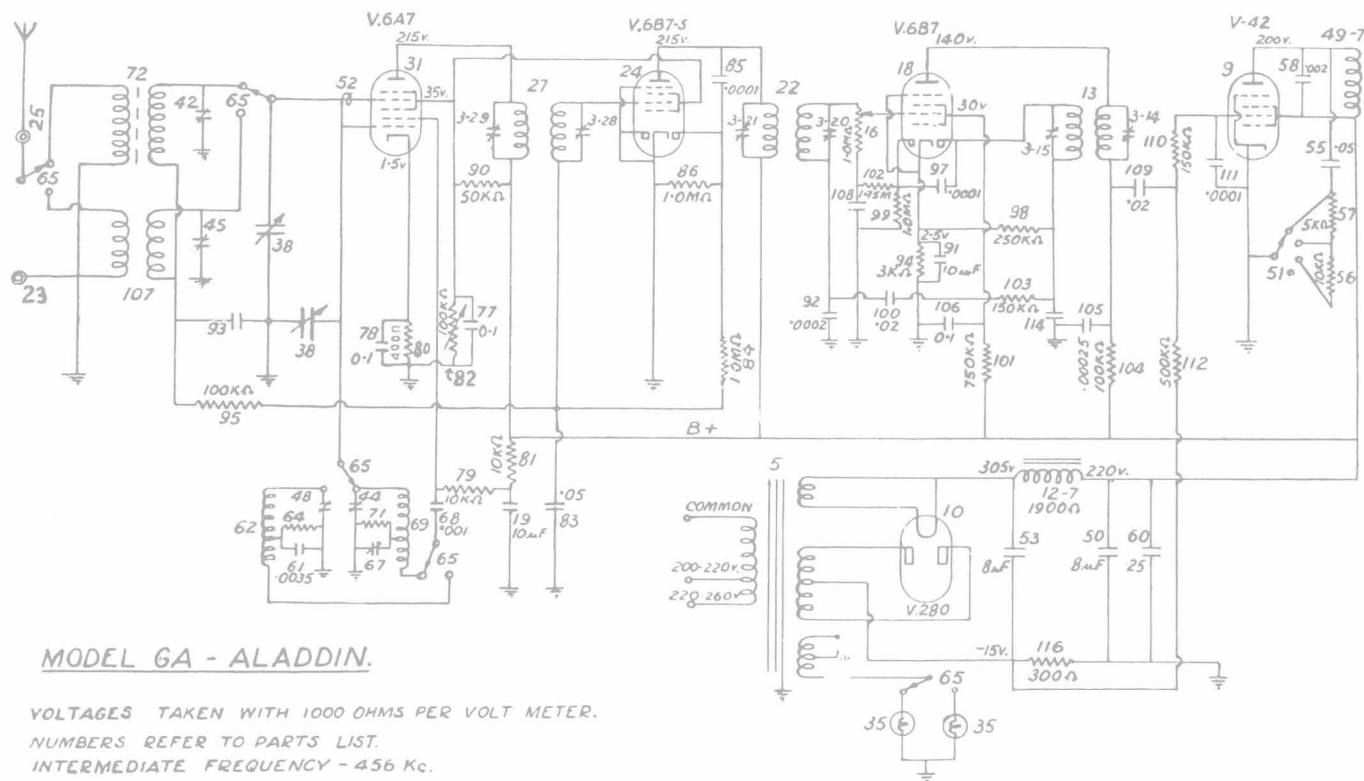
R1, R2—100,000 ohms, $\frac{1}{2}$ W.; R3—50,000 ohms, $\frac{1}{2}$ W.; R4—25,000 ohms, 1 W.; R5—1 megohm, $\frac{1}{2}$ W.; R6—500,000 ohms, volume control; R7, R9—500,000 ohms, $\frac{1}{2}$ W.; R8—250,000 ohms, 1 W.; R10—500,000 ohms, variable.

CONDENSERS.

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



Astor "Aladdin" A.C. Dual-Wave Mantel Model GA "Astor" A.C. Operated Dual-Wave Console Model 550



MODEL GA - ALADDIN.

VOLTAGES TAKEN WITH 1000 OHMS PER VOLT METER.

NUMBERS REFER TO PARTS LIST.

INTERMEDIATE FREQUENCY - 456 Kc.

ASTOR A.C. D/W "ALADDIN"

Chassis type "GA," 6-inch, 1,900 ohms field, loudspeaker.

ASTOR D/W MODEL 550

Chassis type "HB," 8-inch, 1,900 ohms field, loudspeaker.

Chassis "GA" and "HB" differ only in placement of parts.

COMPONENT VALUES.

The majority of the components used in the Astor Model "Aladdin" (Chassis Type GA) and Astor Model 340 (Chassis Type HB) have manufacturer's part numbers allocated to them, and, in order to simplify replacement, and also identification of the various components, the complete list is given below. The majority of the indices quoted appear on the circuit diagram and in cases where they do not, it will usually be obvious that the component referred to is structural as distinct from electrical.

3—universal I.F. trans. trimmers; 5 (PT113)—power trans.; 7 (PM124)—Complete Dynamic loudspeaker; 9 (PM118)—Type 42 tube; 10 (PM119)—Type 80 tube; 12—1,900 ohms, loudspeaker field; 13 (PT107)—3rd I.F. trans., 456 Kc.; 16 (PM111)—1 megohm, volume control (logarithmic); 18 (PM117)—6B7 tube; 19 (PC123)—10 mfd., 300 v., dry electro.; 22 (PT106)—2nd I.F. trans., 456 Kc.; 24 (PM116)—6B7S tube; 27 (PT105)—1st I.F. trans., 456 Kc.; 31 (PM115)—6A7 tube; Dial Lamps (PM121)—3.5 v., 0.3A.; 38 (PC101)—15/384 mmfd., 2-gang variable; 42, 44 (PC169)—B.C. aer. and osc. coil trimmers respectively; 45, 48 (PC170)—S.W. aer. and osc. coil trimmers respectively; 47

(PM114)—Flexible volume control shaft; 49—7,000 ohms, loudspeaker transformer; 50 (PC129)—8 mfd., 450 v., W., wet electro.; 51—4-position tone-control switch, BP60, FCOA, GA; 52—neutralising condenser ("gimmick"); 53 (PC130)—8 mfd., 500 v., W., wet electro.; 55 (PC136)—0.05 mfd., 600 v., paper; 56 (PR121)—10,000 ohms, $\frac{1}{2}$ W.; 57 (PR120)—5,000 ohms, 1 W.; 58 (PC136)—0.002 mfd., 600 v., paper; 59 (PM123)—4-pin socket (80); 60 (PC128)—0.25 mfd., 400 v.; 61 (PC104)—0.0035 mfd., plus $7\frac{1}{2}\%$, minus $2\frac{1}{2}\%$, 1,000 v., mica; 62 (PT103)—S.W. osc. coil; 64, 79, 81 (PR107)—10,000 ohms, $\frac{1}{2}$ W.; 65 (PM106)—wave-change switch; 67 (PC164)—150/500 mmfd., B.C. padder; 68 (PC110)—0.001 mfd., 1,000 v., mica; 69 (PT104)—B.C. osc. coil; 71 (PR105)—50,000 ohms, $\frac{1}{2}$ W.; 72 (PT102)—B.C. aer. coil; 74, 89, 96 (PM122)—7-pin socket; 77, 78, 106 (PC131)—0.1 mfd., 400 v., paper; 80 (PR114)—400 ohms, $\frac{1}{2}$ W.; 82 (PR102)—100,000 ohms, 1 W., sensitivity control; 83, 93, 108 (PC132)—0.05 mfd., 400 v., paper; 84, 86, 99 (PR110)—1 megohm, $\frac{1}{2}$ W.; 85, 97, 111 (PC110)—100 mmfd., 1,000 v., mica; 90 (PR160)—50,000 ohms, $\frac{1}{2}$ W.; 91 (PC125)—10 mfd., 25 v., W., electro.; 92 (PC124)—200 mmfd., 1,000 v., mica; 94 (PR117)—3,000 ohms, $\frac{1}{2}$ W.; 95, 104 (PR101)—100,000 ohms, $\frac{1}{2}$ W.; 98 (PR133)—250,000 ohms, $\frac{1}{2}$ W.; 100, 109 (PC135)—0.02 mfd., 400 v., paper; 101 (PR118)—750,000 ohms, $\frac{1}{2}$ W.; 102 (PR109)—1.75 megohms, $\frac{1}{2}$ W.; 103, 110 (PR119)—150,000 ohms, $\frac{1}{2}$ W.; 105 (PC126)—250 mmfd., 1,000 v., mica; 107 (PT101)—S.W. aer. coil; 112 (PM112)—500,000 ohms, $\frac{1}{2}$ W.; 113 (PM108)—6-pin socket; 114 (PC144)—500 mmfd., 1,000 v., mica; 116 (PR122)—300 ohms, 1 W.

ALTERATIONS.

In earlier models of this series it will be found that 64 (10,000 ohms) is a 30,000 ohms resistor. The change was made as from 4/10/37. A 10,000 ohms $\frac{1}{2}$ W. resistor will be found connected from aer. to ground in later models of this series. This addition was made as from 22/1/38, in order to prevent the primary circuit becoming sharply resonant to the intermediate frequency with small aeriels.

ARISTOCRAT MODEL 801

(Continued from page 205)

ALTERATIONS.

Originally this model was scheduled with an extra switch section (known as section 1) which shunted a 14 ohms, w.w. resistor across the aerial coil in the 3rd position of the wave-change switch. This was discontinued in favour of the variable selector system shown, in which a tertiary winding on the 1st I.F. transformer is brought into circuit in both S.W. and alternative B.C. positions. This has the effect of broadening the tuning when the tertiary winding is in circuit, but enables the receiver to be used at maximum selectivity for normal B.C. reception (centre position of wave-change switch).

Another change made from the original design of this model is found in the frequency converter screen feed system. R11 was originally a 15,000 ohms voltage divider with a tapping to feed both the EK2 and 6D6 (now 6K7) screens. This was discontinued in favour of a simple series voltage dropping resistor for the 6K7 screen, while the EK2 screen is fed from the osc. anode grid supply through an independent dropping resistor R1 (10,000 ohms). The remaining valve complement of two type 76 and two type 42 in earlier models has been replaced by two type 6C5 and two type 6F6 valves respectively.

It may also be found in some earlier models of this series that the relative positions of the loudspeaker field and filter choke are reversed. Under these circumstances the positions of C26 and C27 will also be reversed.

Although metal envelope valves are shown in all positions except the frequency converter, rectifier, and tuning indicator, it probably will be found that the octal glass ("G" series) version of these types is the normal equipment.

For convenience when servicing it should be noted that switches 5, 6, 7 form one plate; 3, 4 another, and No. 2 is entirely separate.