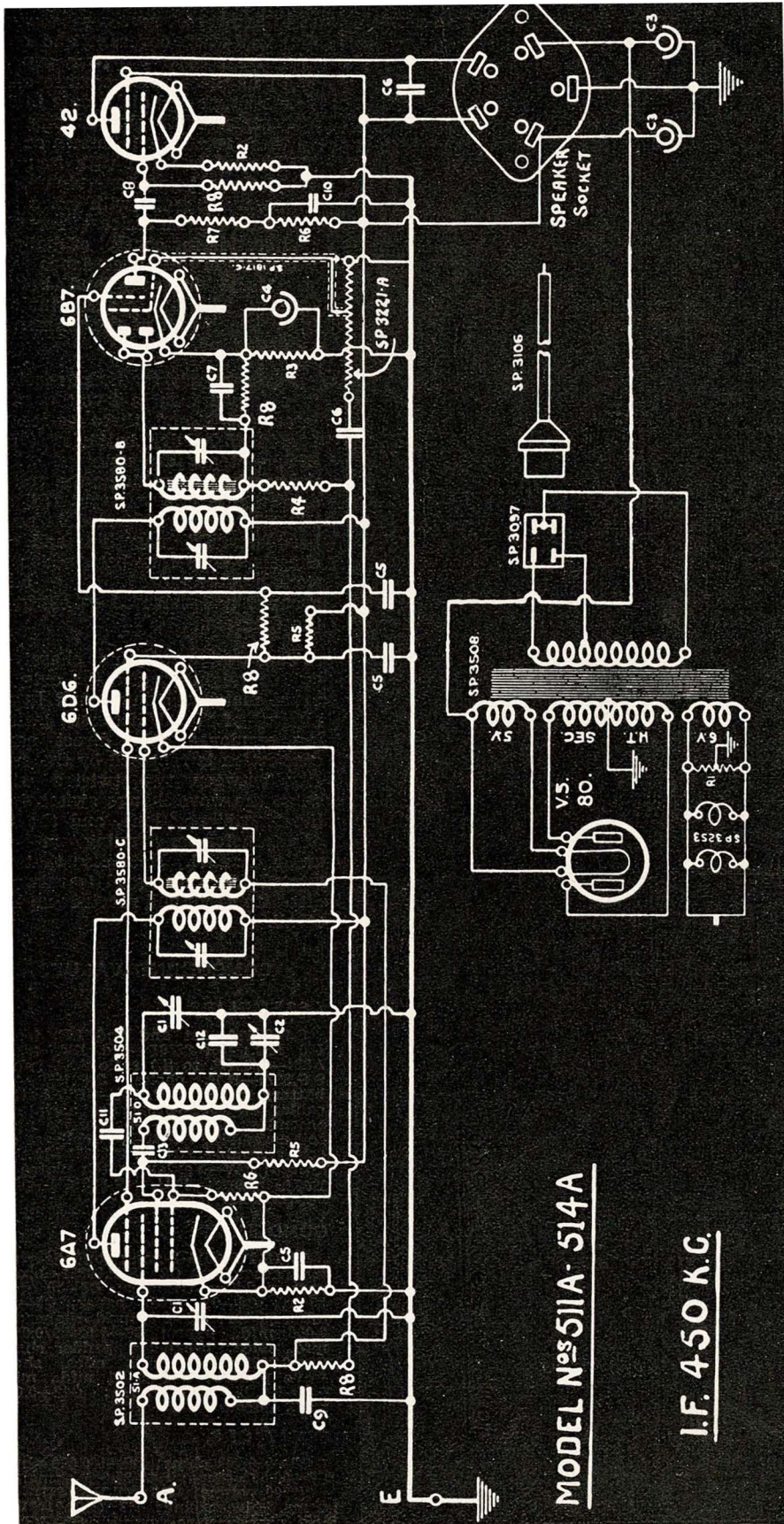


"S.T.C." A.C.-Operated Broadcast Models 511A, 514A



MODEL Nos 511A-514A

I.F. 450 K.C.

S.T.C. models "511A" and "514A" are five-valve, console type, receivers, designed for broadcast coverage and operation from 200-250 volts A.C. mains. Apart from their cabinet style, these two receivers are identical and employ a chassis known as "type 51A." This chassis is fitted with two controls—tuning and volume—and uses an 8-inch, 2,500 ohms field, loudspeaker.

The arrangement of this receiver is fairly straightforward, but there are one or two points which should be carefully noted. The first of these is that the aerial coil is connected directly to the low-potential end of the 6A7 grid coil; this means that the aerial itself is "floating" at A.V.C. potential and, consequently, any leakage from aerial to earth will reduce the A.V.C. voltage, and may, in a severe case, actually stop the A.V.C. system from functioning. The next point of interest is provided by the shunt-fed oscillator circuit; this is mentioned because it differs so markedly from the system used in chassis type "51B" (see page 322). Another interesting feature will be found in the omission of a bypass condenser across the output valve cathode resistor; the effect of this is to introduce a percentage of degeneration ("inverse feed-back") and so reduce distortion. Finally, very careful attention should be paid to the position of the power cord connector (S.P.3106). This fits into the terminal plate assembly S.P.3097, and its position determines whether the receiver is adjusted for low or high mains voltage operation. The power cord connector is labelled and the correct position is when the mains voltage corresponds to the marking which is facing upwards.

COMPONENT VALUES

ASSEMBLIES.

S.P.3221A—500,000 ohms, volume control; S.P.3508—power transformer; S.P.3580C—1st I.F. trans., 450 KC.; SP.3580B—2nd I.F. trans., 450 KC.; S.P.3502—aerial coil and can assembly (coil only, 51A); S.P.3504—osc. coil and can assembly (coil only, 51O); S.P.3097—power trans. primary terminal plate; S.P.3106—power lead and connector; S.P.3253—dial-lamp wiring; S.P.1817C—shielded grid lead for 6B7.

CONDENSERS.

C1 (S.P.3532)—2-gang var. cond. and dial assembly; C2 (S.P. 3082)—padding trimmer; C3—8 mfd., 500 v., electros.; C4—10 mfd., 25 v., electro; C5—0.1 mfd., paper; C6—0.01 mfd., paper; C7—0.0001 mfd., paper; C8—0.006 mfd., paper; C9—0.05 mfd., paper; C10—0.5 mfd., paper; C11—0.0001 mfd., mica; C12—0.00029/0.00031 mfd., mica, padder shunt; C13—0.001 mfd. mica.

RESISTORS.

R1 (S.P.3103S)—100 ohms, centre-tapped; R2 (S.P.3103B)—400 ohms, wire-wound; R3 (S.P.3103C)—1,000 ohms, wire wound; R4—10,000 ohms.; R5—20,000 ohms; R6—50,000 ohms; R7—250,000 ohms; R8—500,000 ohms.