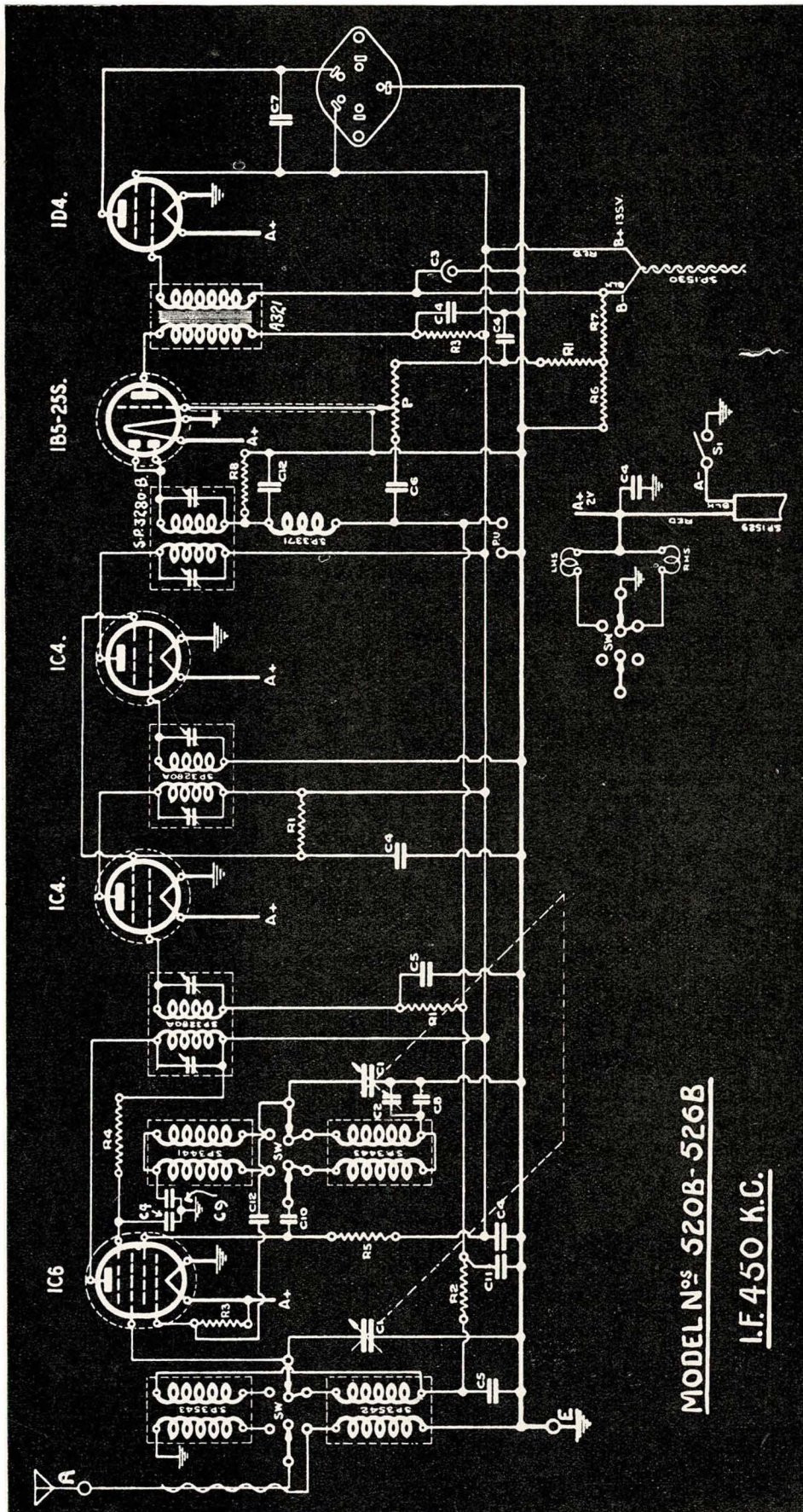


"S.T.C." Battery-Operated Dual-Wave Models 520B, 526B



S.T.C. models "520B" and "526B" are five-valve receivers designed for dual-wave coverage and operation from battery power supplies. Both of these receivers are of the console type and differ only in cabinet style. The chassis employed in these receivers is known as type "52B" and is fitted with four controls, these being for volume, tuning, wave-change (with extra position for "local broadcast" reception and section for control of dial-scale illumination in accordance with wave-band in use) and battery-switch. The loudspeaker employed is an 8-inch unit of the permanent-magnet type.

Power supply for these receivers is obtained from a 2-volt accumulator ("A") and three series-connected 45 v. dry batteries ("B"). Bias voltages are obtained within the receiver by utilising the voltage drop across two resistors (R6 and R7) which are connected in series between "B" negative and the chassis. Only four battery connections are required, these being grouped and coloured as shown in the diagram.

The design of this chassis is quite straightforward, the only unusual features being found in the method of "local/distance" switching employed (the direct aerial connection is replaced by the capacity between two twisted wires when the wave-change switch is in the "local" position), and the use of transformer-coupling in the audio channel. Note also that the second I.F. valve grid is returned direct to earth and receives no bias at all.

COMPONENT VALUES

ASSEMBLIES.

S.P.3280A—1st and 2nd I.F. trans., 450 K.C.; S.P.3280B—3rd I.F. trans., A321—1/3 (P. to S.) ratio A.F. trans.; S.P.3371—R.F. choke; S.P.1529—"A" battery cable; S.P.1530—"B" battery cable; S.P.3542—broadcast aerial coil assembly; S.P.3543—short-wave aerial coil assembly; S.P.3443—broadcast osc. coil assembly; S1 (S.P.3395)—battery switch; SW—Yaxley switch plates for wave-change; P.U. (S.P.3105)—pick-up terminal plate.

CONDENSERS.

C1 (S.P.3485)—2-gang condenser and dial assembly; C2 (S.P.3082)—broadcast padding trimmer; C3—10 mfd., 25 v.; C4—0.5 mfd., paper; C5—0.05 mfd., paper; C6—0.01 mfd., paper; C7 0.006 mfd., paper; C8—0.00029/0.00031 mfd., mica, broadcast padder shunt; C9—0.0039/0.0041 mfd., mica, short-wave padder; C10—0.001 mfd., mica; C11—0.0015 mfd., mica; C12—0.0001 mfd., mica.

RESISTORS.

R1—500,000 ohms; R2—100,060 ohms; R3—50,000 ohms; R4—25,000 ohms; R5—10,000 ohms; R6 (S.P.3103U)—200 ohms, wire-wound; R7 (S.P.3103V)—160 ohms, wire-wound; R8—250,000 ohms; P (S.P.3221A)—500,000 ohms, volume control.