ALBA Models 22, 33

General Description: Model 22 is a six-transistor, two-waveband (L.W./M.W.), portable receiver with A.G.C. damping diode. Model 33 is similar except that there is no car aerial socket.

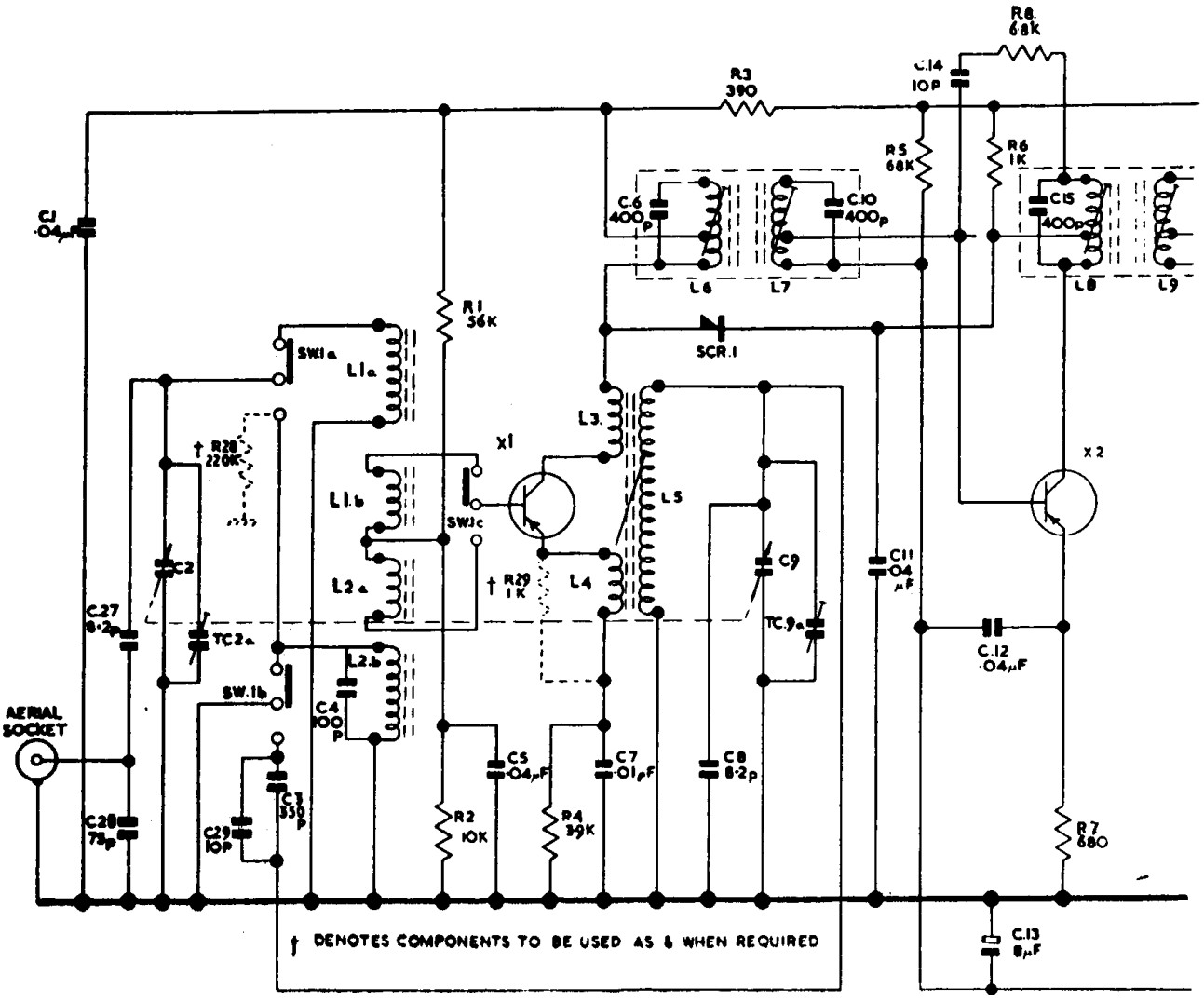
Power Supply: $4\frac{1}{2} + 4\frac{1}{2}$-volt battery (PP11 or equivalent).

Transistor Analysis: Measurements taken on Avo Model 8 (20,000-ohms/volt) meter under no-signal conditions, positive connection to chassis.

	X1 OC44	X2 OC45	X3 OC45	X4 OC81D	X5 OC81	X6 OC81
Emitter .	1·27	0·75	1·15	1·45	4·5	0
Base .	1·2	0·9	1·25	1·6	4·55	0·15
Collector .	8·6	7·7	8·85	8·5	9	4·5

SCR1 OA79, SCR2 OA70.

Alignment Summary: I.F. 470 kc/s. (Cores L10, L9, L8, L7, L6); 600 kc/s. (Core L3/4/5 and position L1a/b); 1500 kc/s. (TC9A, TC2A);



CIRCUIT DIAGRAM—

210 kc/s. (position L2a/b). Normally for both R.F. and I.F. alignment signals may be injected via a transmitting coil (14 turns, 18 S.W.G., $\frac{7}{8}$ in. former, $1\frac{1}{8}$ in. long). Panel must be removed from baffle to reach bottom I.F. cores.

Dismantling: Place receiver face downwards. Remove back (three wood-screws). Slip off elastic band holding aerial rod to cabinet. Unpin wave-change escutcheon and carefully disengage wave-change switch slider rod from knob. Disconnect aerial socket. Remove four wood-screws holding baffle to cabinet shell, which can then be lifted off. *To remove printed panel from baffle:* Pull off two front knobs and tuning pointer. Unpin scale disc, remove P.K. screw behind it and loosen P.K. screw adjacent to volume-control spindle. Slide panel slightly towards top of baffle and lift off.

Component Notes: Speaker impedance 25 ohms. C3 1%. C4 (N750), 2%. C14 (P100), C18, C28 (N750), R22, R24 5%. C8 (P100), C27 (P100) 10%. R28 and R29 may be made up of 100- and 330-ohm resistors in parallel. C29, R28, R29 are fitted in some receivers to ease alignment.

Fault-finding: Transistor failures are unlikely, and other components should be investigated first unless a transistor appears warm to the touch, in which case it is probably at fault. D.C. flow through loudspeaker with no signal input should not exceed 0·5 mA.—higher reading indicates mismatching of output transistors or biasing networks.