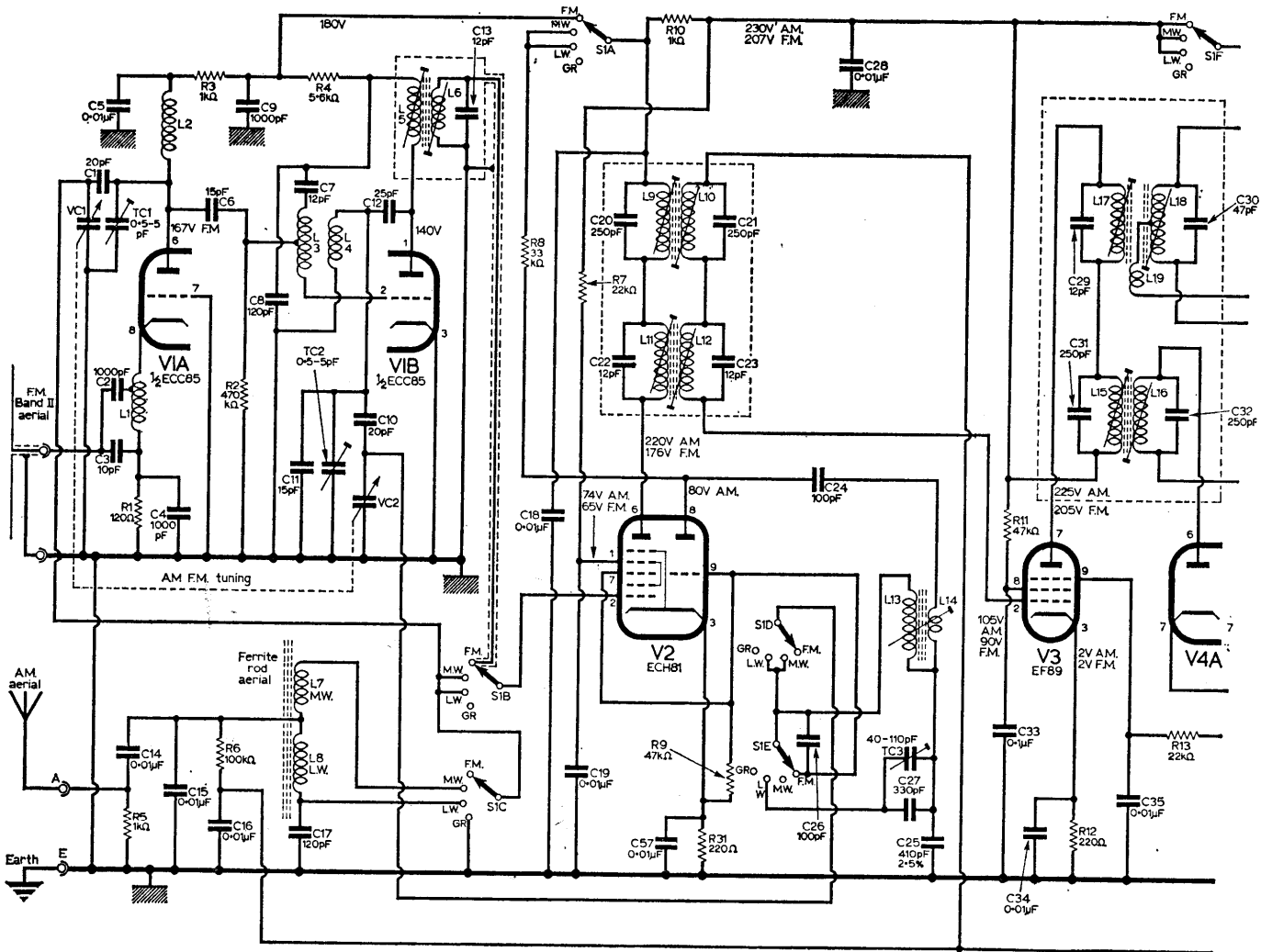


FIDELITY

Model RG32

General Description: Six-valve, three-waveband A.M./F.M. stereo radiogram incorporating a B.S.R. UA15 changer unit for use on 220-250 volts A.C. mains only.

Valves: (V1) ECC85; (V2) ECH81; (V3) EF89; (V4) EABC80; (V5) ECL86; (V6) EL84.

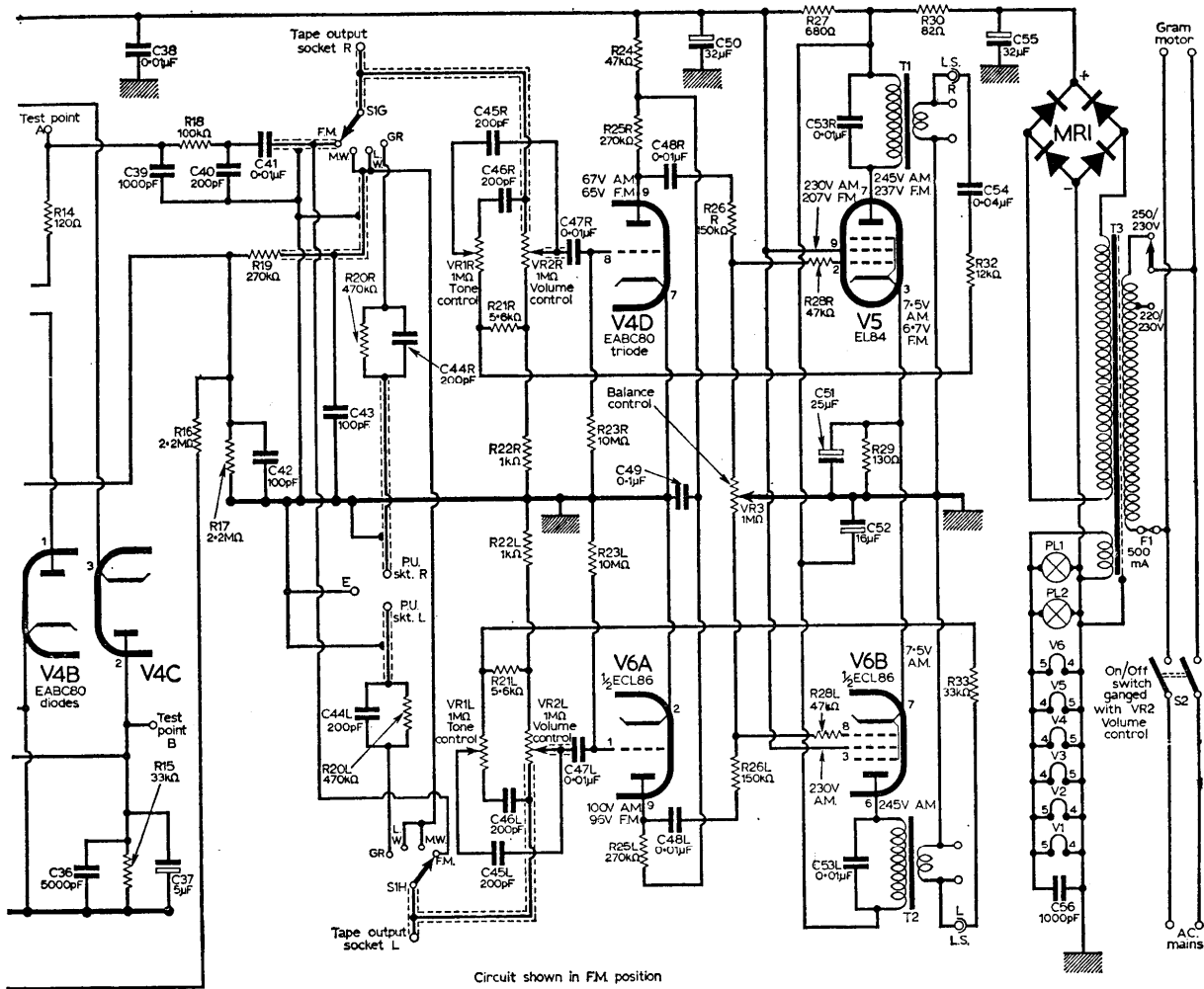


CIRCUIT DIAGRAM—

Alignment: I.F. 470 kc/s. (L16, L15, L10, L9); M.W. 1000 kc/s (L13/14); 857 kc/s. (L7); L.W. 214 kc/s. (TC3); 160 kc/s. (L8); F.M. I.F. 10.7 Mc/s. (L17, L12, L11, L5, L6, L18); R.F. circuits: Local Home Service (TC2, TC1); Local Light Programme (C1, C5).

A.M. Operation: Signal pick-up is by means of a ferrite rod aerial, the signal being coupled to the mixer V2A by L7 on M.W. and L8 on L.W., the coils being tuned by VC1. Provision is made for the connection of a conventional long-wire aerial, the signal being applied via bottom-end coupling components R5, C14, C15, to the aerial coils. The triode section of V2 functions as local oscillator, oscillator voltage being obtained by feedback via L13, L14. The primary winding is tuned by VC2. On L.W.,

TC₃ and C₂₇ are switched into circuit across the tuned winding. The 470 kc/s. I.F. signal is selected by L₉, C₂₀, and coupled via L₁₀, C₂₁ to the I.F. amplifier V₃, the output of which is coupled via L₁₅/C₃₁, L₁₆/C₃₂, to diode A of V₄, the A.M. detector. The d.c. component of the demodulated signal appearing across the diode load resistor R₁₇ is fed back via R₁₆ to V₃ and via R₆ to V_{2A} as A.G.C. bias. C₄₂, R₁₉, C₄₃ form a filter to remove any residual I.F. content in the demodulated signal. The audio output is taken via SIG and SIH to the audio stages or to tape output sockets.



Circuit shown in FM position

FIDELITY MODEL RG32

F.M. Operation: On F.M., signal input is via the internal loop aerial and C₂, C₃, L₁ to the cathode of grounded grid R.F. amplifier V_{1A}. The amplified voltage developed across L₂ is tuned by TC₁, VC₁, C₁, and passed via C₆ and L₃ to the parallel-fed additive mixer V_{1B}.