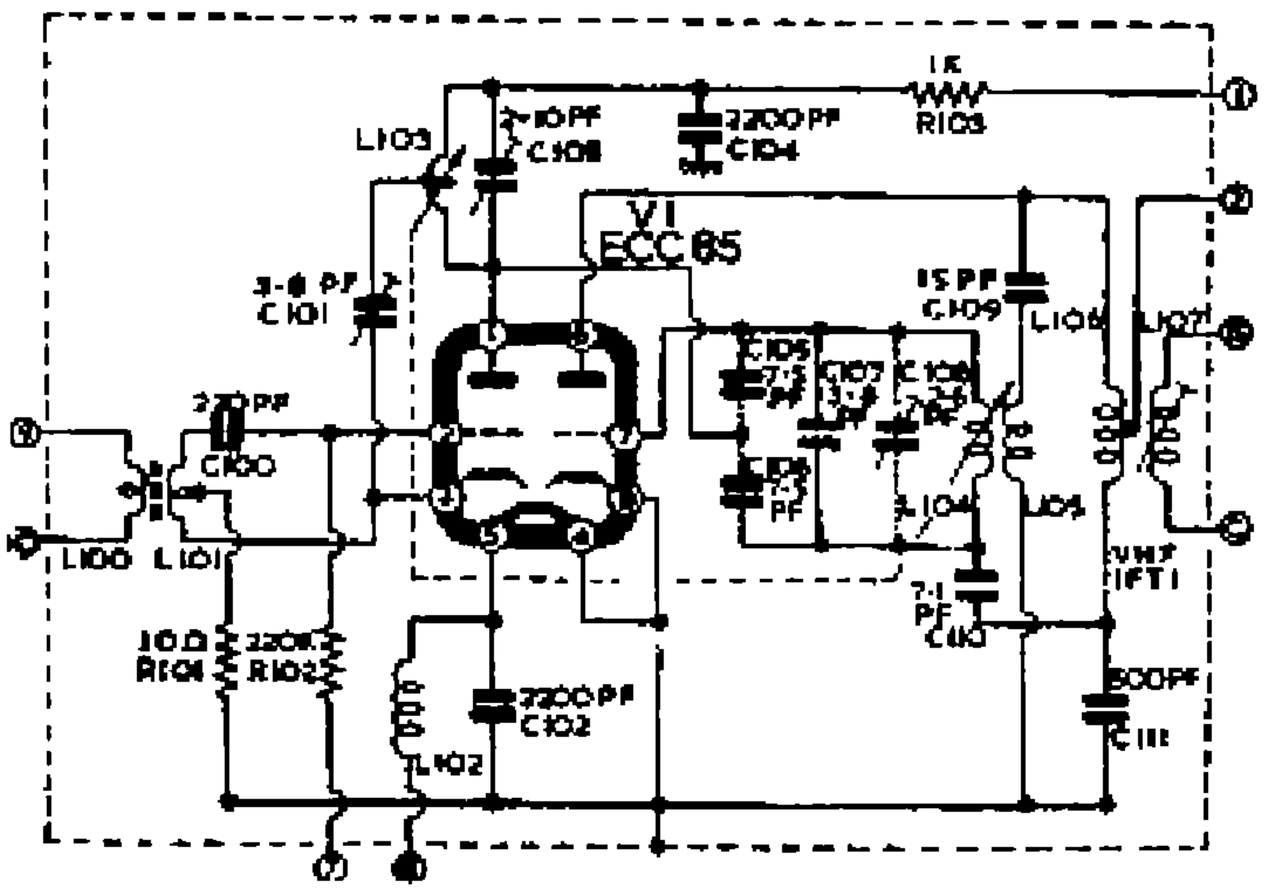
General Description: Eight-valve (including rectifier and tuning indicator), four-waveband (including V.H.F.), combined A.M./F.M. auto-radiogramophone with three loudspeakers and Baxandall treble and bass tone controls.

Power Supply: A.C. mains, 100–125 and 200–250 volts, 50 c/s. Consumption about 100 watts.

Wavebands: S.W. 13–50 m.; M.W. 194·5–575 m.; L.W. 1150–2200 m.; V.H.F./F.M. 88–101 Mc/s.

Valves: (V1) ECC85 (V.H.F. amplifier and self-oscillating mixer); (V2) ECH81 (A.M. Frequency changer/F.M. I.F.); (V3) EF89 (dual I.F.); (V4)



V.H.F. Tuner Unit

EB91 (ratio detector); (V5) ECC83 (A.F./tone control); (V6) ECC83 (tone/control/phase splitter); (V7, V8) EL84 (push-pull output); (V9) EZ81 (rectifier); (V10) EM840 (tuning indicator). OA71 crystal diode A.M. detector and A.G.C.

Record Unit: Garrard 120/4D auto-changer. Acos Hi-G GP59–1/C turnover crystal pick-up. Sapphire styli SK1 (green spot) for 78 r.p.m.; SK2 (red spot) for microgroove.

Intermediate Frequencies: A.M. 472 kc/s.; F.M. 10·7 Mc/s.

Loudspeakers: One 10 × 6-in. elliptical and two 4-in. dynamic for treble.

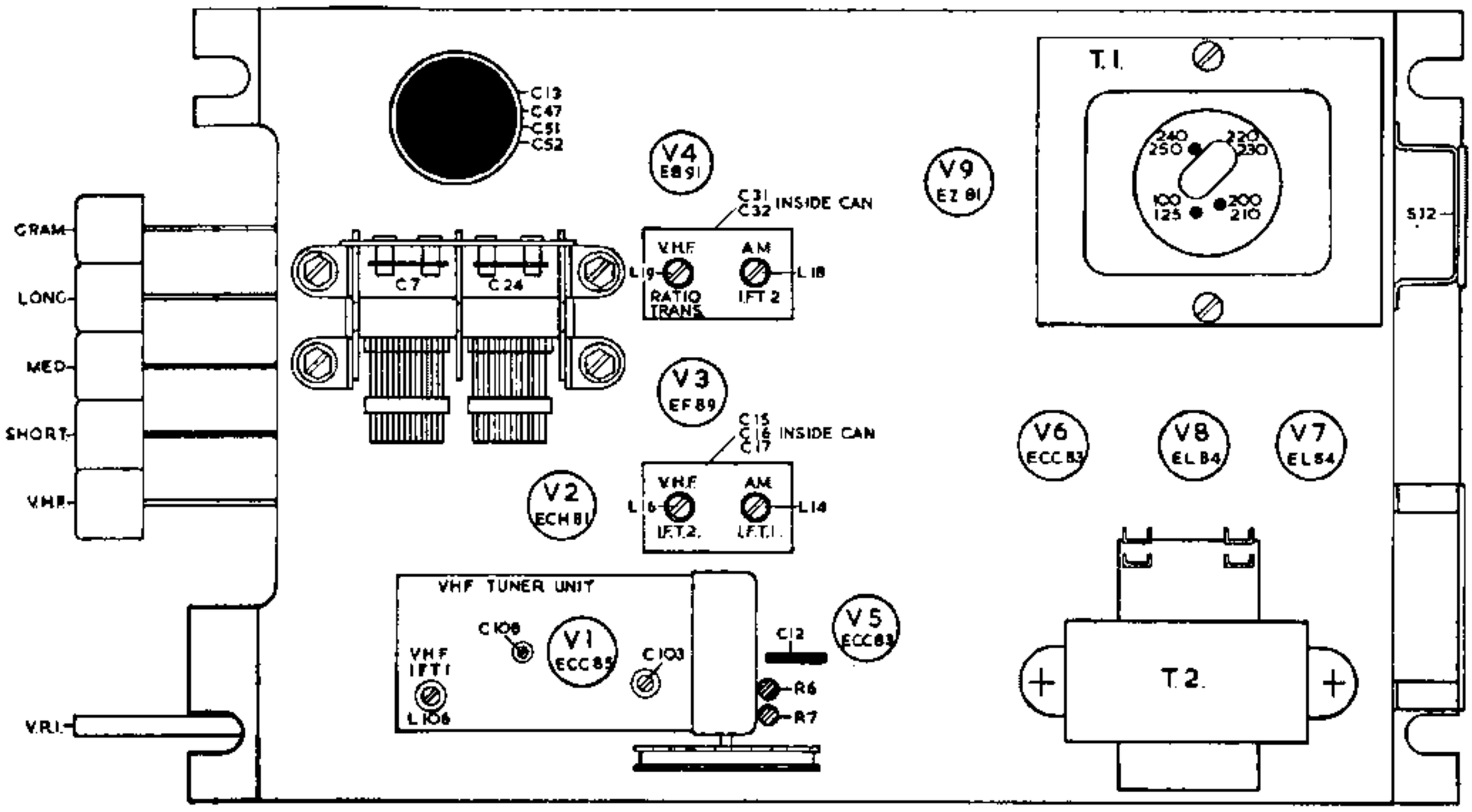
Alignment Procedure: For complete alignment an A.M./F.M. signal generator is required covering 10–100 Mc/s. (F.M.), 150 kc/s.–20 Mc/s. (A.M.). Before alignment check that pointer is under datum line at L.F. end of tuning scale, while gang is fully closed and V.H.F. tuning drum is fully clockwise.

I.F. (F.M.): Set V.H.F. generator to give 50 mV. at 10·7 Mc/s., deviation 60 kc/s. Connect generator to grid of V3. Withdraw core of

DECCA

CIRCUIT DIAGRAM—DECCA MODEL RG200

* - CLOSE TOLERANCE



ABOVE CHASSIS VIEW

L19 from resonance, then align L20 for maximum output (*note* this occurs on 2nd peak and having been adjusted should not be touched again). Align L19. Connect generator to V2 grid via C11 and adjust L15 and L16. Afterwards recheck adjustment of L19, L15 and L16.

R.F. (*F.M.*): Inject a 95-Mc/s. F.M. signal via dipole aerial sockets and carefully tune receiver to signal. Adjust top core (L106) to second peak. Adjust bottom core (L107) to peak. Turn tuning-scale pointer to 95 Mc/s. and adjust C108 to set calibration correctly. Adjust C103 for peak signal.

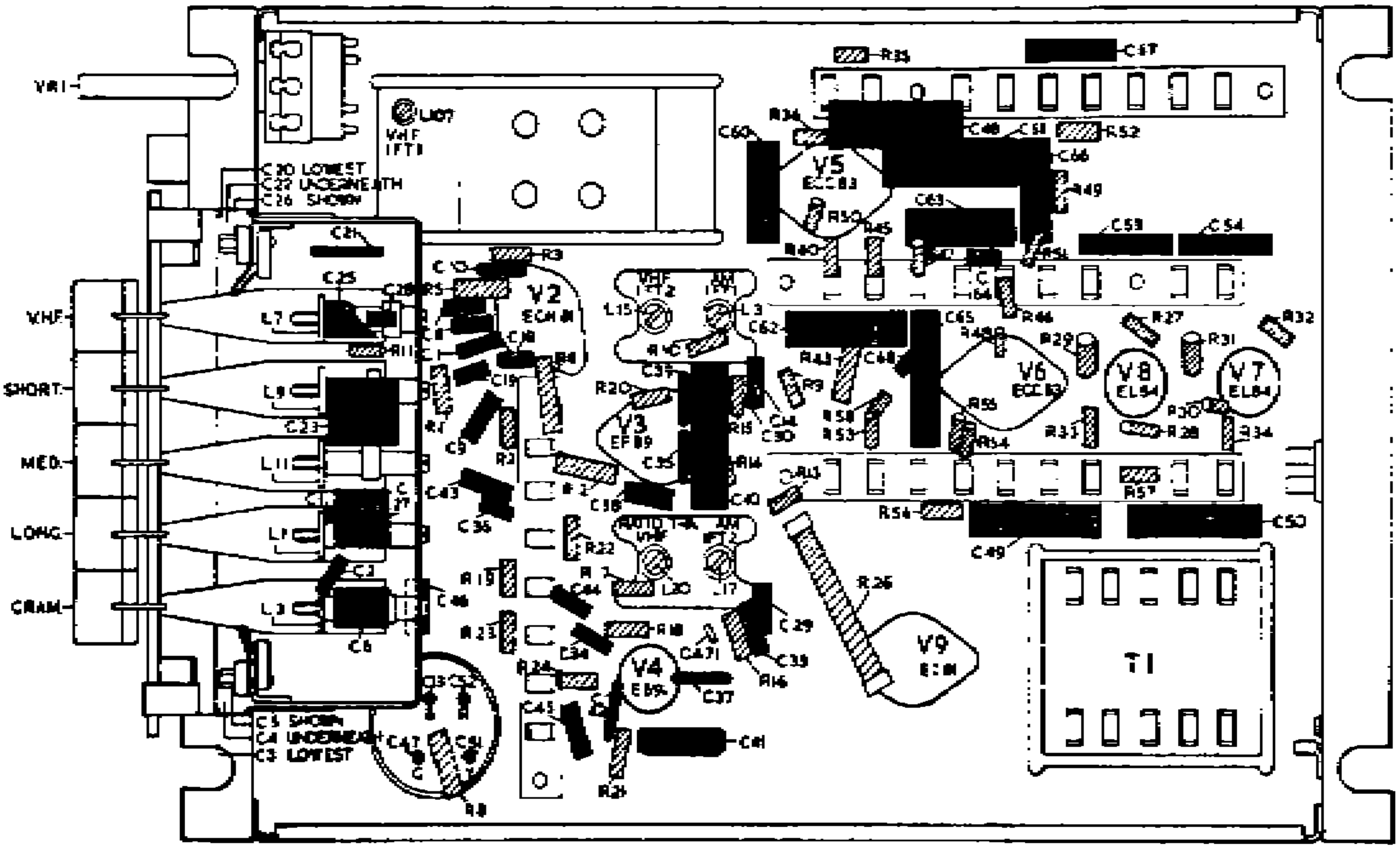
I.F. (*A.M.*): (1) Set to M.W. and short-circuit C24. (2) Set generator to 472 kc/s. A.M. and connect to grid of V2. (3) Adjust L13, L14, L17 and L18. (4) Recheck (3). (5) Inject 472 kc/s. via dummy aerial to A.M. aerial sockets. (6) Remove short-circuit from C24. (9) Adjust L1 for minimum output.

R.F. (*A.M.*): Note circuits must be aligned in order: S.W./M.W./L.W.

S.W.: (1) Inject a 6-Mc/s. signal via a 400-ohm resistor to aerial socket and tune set to 6 Mc/s. (2) Adjust core L7 for correct calibration, selecting first tuning point from outermost end of coil. (3) Adjust L3 to peak output. (4) Inject a 18-Mc/s. signal and tune to 18 Mc/s. (5) Adjust C20 (note that image appears about 1 Mc/s. lower than selected tuning point). (6) Adjust C3 to peak. (7) Repeat operations until calibration is correct at both ends of scale with optimum sensitivity.

M.W.: (1) Inject a 600-kc/s. signal via dummy aerial. (2) Tune to 500 m. (3) Adjust core L9 for correct calibration. (4) Inject a 1200-kc/s. signal and tune to 250 m. (5) Adjust C22 for calibration and C4 for sensitivity. (6) Check calibration and repeat procedure if necessary.

L.W.: (1) Inject a 150-kc/s. signal and tune to 2000 m. (2) Adjust L11 for correct calibration. (3) Inject a 250-kc/s. signal and tune to 1200 m. (4) Adjust C26 for correct calibration, and C5 for sensitivity.



UNDER CHASSIS VIEW—MODEL RG200