

FERGUSON

Model 352U

General Description : Three-valve (plus contact-cooled metal rectifier), two-waveband transportable receiver with ferrite-rod aerial and provision for external aerial and earth.

Power Supply : A.C./D.C. mains, 200–250 volts (A.C. 40–100 c/s.).

Wavebands : M.W. 175–565 m.; L.W. 1080–2080 m.

Valve Analysis : Measurements taken with set on 225 volts (50 c/s.) A.C. under no-signal conditions on M.W. Meter used was Avo Model 8, 250- and 10-volt ranges.

Valve		Anode, volts	Anode, mA.	Screen, volts	Screen, mA.	Cathode, volts
V ₁	UCH81 (osc.)	175 96	0.8 3.5	48	2.5	—
V ₂	UBF80	175	3.2	48	1.2	—
V ₃	UCL83 (triode)	92	0.8	—	—	—
	(pentode)	183	25	175	4.4	9.5

Rectifier Westinghouse 18RA1-1-16-1.

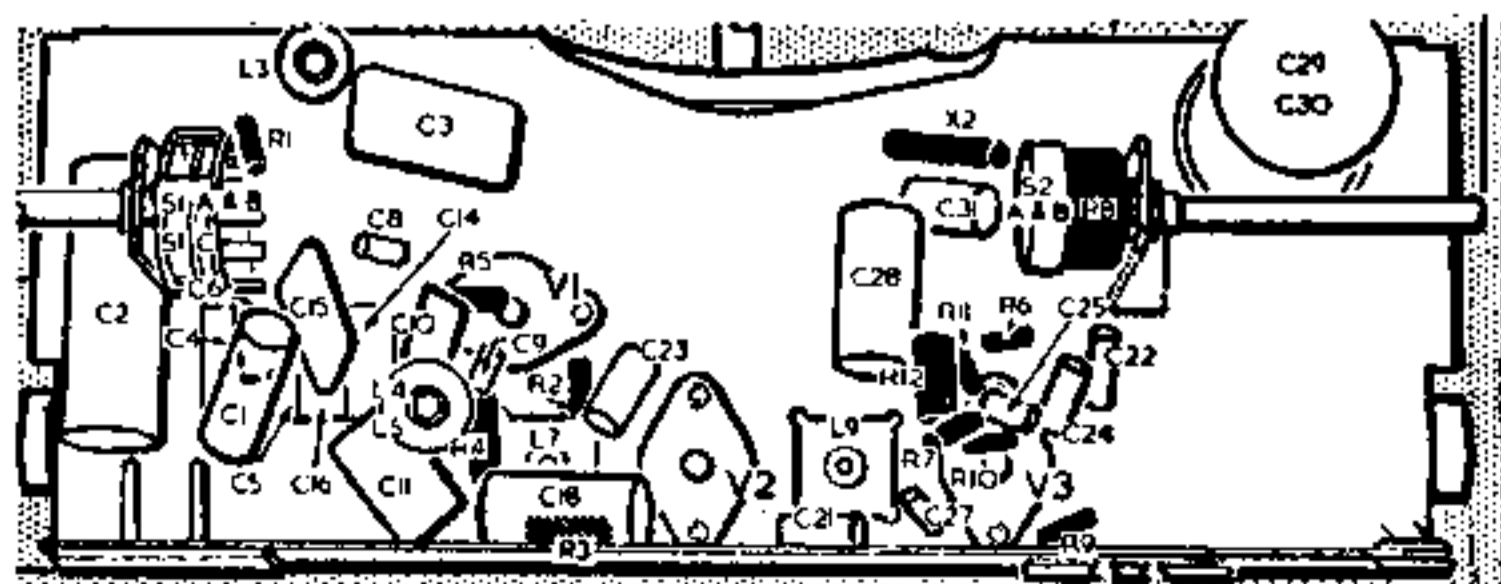
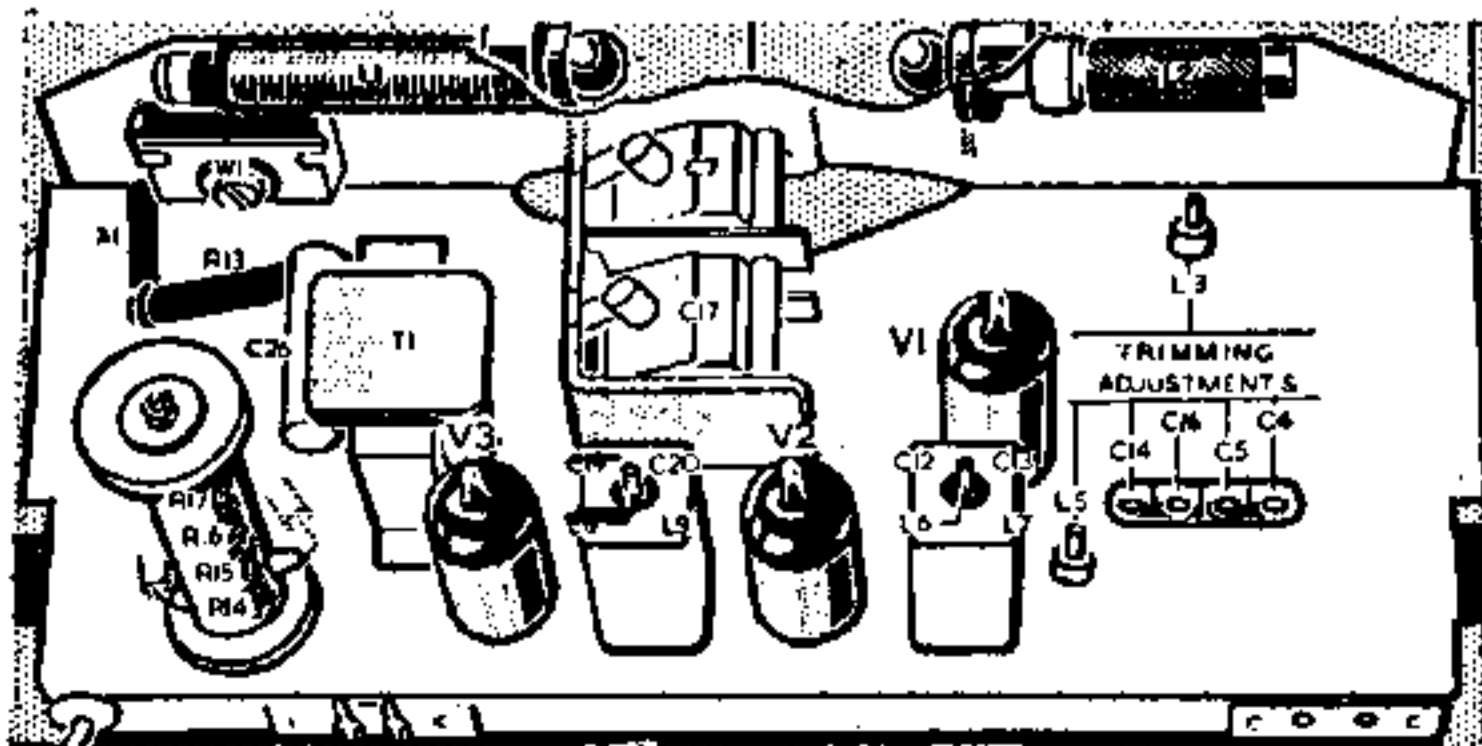
Alignment Procedure : Alignment can be carried out without removing the chassis.

I.F. : Inject a 470-kc/s. signal to front section of gang via 0.01- μ F. isolating capacitors and adjust cores of L₉, L₈, L₇ and L₆ in that order.

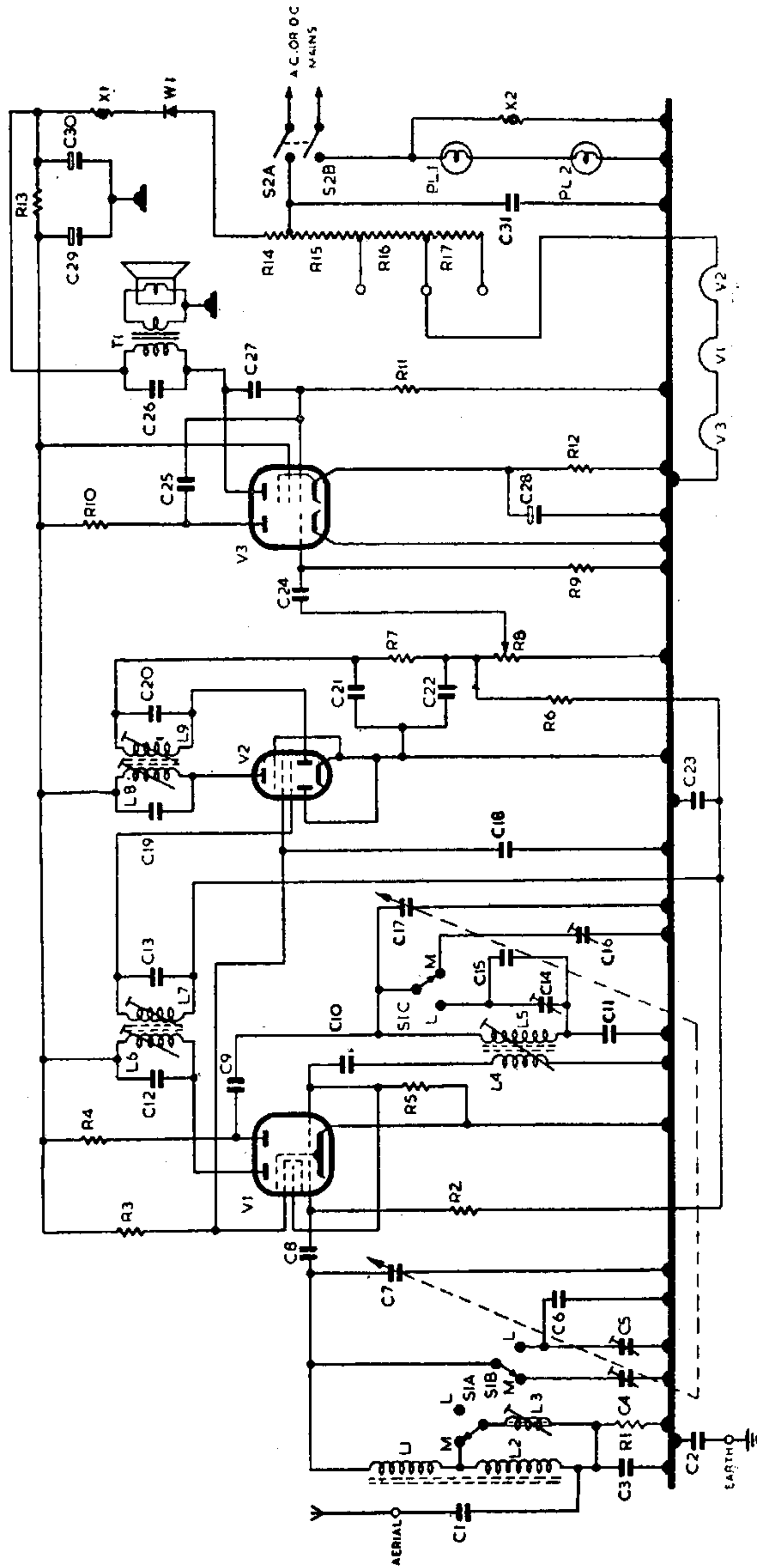
R.F. : Check that with gang fully closed top cursor line is central between 550-m. and 1100-m. calibration spots. Inject signals by closed loop of a few inches of wire across output of signal generator. M.W. must be aligned first.

M.W. : Set receiver to "pad" calibration dot at 517.2 m., inject a 580-kc/s. signal and adjust L₅ and L₃: take special care to ensure that L₃ is exactly peaked. Set receiver to 214.3 m., inject a 1400-kc/s. signal and adjust C₁₆ and C₄. Repeat both operations until no further improvement results.

L.W. : Set receiver to smaller red dot at 1364 m., inject a 220-kc/s. signal and adjust C₁₄ and C₅.



CHASSIS LAY-OUT DIAGRAMS—FERGUSON MODEL 352U



CIRCUIT DIAGRAM—FERGUSON MODEL 352U

- Capacitors.**
- C1 0.001 (1000 v.)
 - C2 0.05 (1000 v.)
 - C3 3000 pF. (5%)
 - C4 4-40 pF.
 - C5 4-40 pF.
 - C6 80 pF. (5%)
 - C7 528 pF. (Swing)
 - C8 220 pF.
 - C9 220 pF.
 - C10 56 pF.
 - C11 390 pF. (2%)

- C12 200 pF. * (2%)
- C13 200 pF. * (2%)
- C14 4-40 pF.
- C15 390 pF. (2%)
- C16 4-40 pF.
- C17 528 pF. (Swing)
- C18 0.1 μF.
- C19 200 pF. * (2%)
- C20 200 pF. (2%)
- C21 100 pF.

- C22 100 pF.
- C23 0.05
- C24 0.01
- C25 0.003
- C26 0.005 (1000 v.)
- C27 30 pF.
- C28 50 (25 v.)
- C29 50 (275 v.)
- C30 50 (275 v.)
- C31 0.01 (1000 v.)

- Resistors.**
- R1 3.3k
 - R2 470k
 - R3 33k (1/2 W.)
 - R4 22k (1/2 W.)
 - R5 47k
 - R6 1.5M
 - R7 100k
 - R8 500k (Pot.)
 - R9 10M

- R10 100k
- R11 270k
- R12 330 (10%, 1/2 W.)
- R13 1.5k (1 W.)
- R14 120 (5%, W.W.)
- R15 1100
- R16 200 (5%, W.W.)
- R17 200

- D.C. Resistances.**
- L5 2 ohms
 - L6 8 ohms
 - L7 8 ohms
 - L8 8 ohms
 - L9 8 + ohms
 - T1 (pri.) 500 ohms.
 - + 6 ohms in early models.

* 125 pF. in early models.