



Resistors			R21 RV1	1.8kΩ 5kΩ	C2 A1	C18 C19	0.02μF —	B2 B2	L4 L5	— 8Ω	A2 C2
R1	5.6kΩ	B1	Capacitors			C20	0.02μF	B2	T1	—	B2
R2	30kΩ	B2	C1	100μF	B1	C21	0.04μF	B1	T2	—	B2
R3	1.2kΩ	A2	C2	40pF	B1	C22	9pF	B2	T3	—	B2
R4	75kΩ	B2	C3	50pF	B1	C23	—	B2	T4	—	C2
R5	500Ω	B1	C1	—	A1	C24	0.02μF	B2	Miscellaneous		
R6	4kΩ	A2	C3	—	A1	C25	0.02μF	B2			
R7	24kΩ	B2	C4	—	A2	C26	5μF	C1			
R8	4.7kΩ	B2	C5	—	A2	C27	30μF	C2	D1	1S426	A2
R9	4.7kΩ	B2	C6	0.01μF	B1	C28	5,000pF	C2	S1-S10	B1	
R10	1kΩ	B1	C7	5pF	A1	C29	120pF	C1	S11	A1	
R11	1.5kΩ	B2	C8	0.01μF	A1	C30	100μF	C2	* In later versions of models 1369 and PT302 C32 is 12pF. † Not fitted in models 1371 and PT302.		
R12	2kΩ	C2	C9	15pF	A1	C31	100μF	C2			
R13	680Ω	C1	C10	—	A2	C32*	5pF	B1			
R14	30kΩ	C1	C11	—	A2	Coils and transformers					
R15	500Ω	C2	C12	50pF	A1						
R16	100Ω	C2	C13	95pF	B1						
R17	170kΩ	C1	C14	—	B2	L1†	—	B1			
R18	1.8kΩ	C2	C15	30μF	B2	L2	—	A1			
R19	100Ω	C2	C16	0.04μF	B1	L3	—	C1			
R20	100Ω	C2	C17	6pF	B2						

Transistor table

Transistor	Emitter (V)	Base (V)	Collector (V)	
TR1	2SA201A	0.82	0.75	5.25
TR2	2SA202D	0.13	0.28	3.55
TR3	2SA198P	0.65	0.83	5.25
TR4	TG48	—	—	—
TR5	2SB270	1.1	1.25	1.85
TR6	2SB270	1.66	1.85	4.76
TR7	2SB187	2.96	3.1	6.0
TR8	2SB187	0	0.15	2.96

Quiescent current 8mA (approximately)

Transistor analysis

Transistor voltages quoted in the table overleaf were obtained from information supplied by the manufacturers. They were measured under quiescent conditions with a model 8 Avometer and are all negative with respect to the positive line.

Circuit alignment

Equipment required. — An r.f. signal generator amplitude modulated 30 per cent at 1kc/s; two 0.1μF capacitors and an r.f. coupling loop.

Preset volume control to maximum and check condition of batteries in receiver. In order to avoid alignment error due to a.g.c. action, attenuate input signal so that the audio output is maintained at a level that just allows for a recognizable increase in gain.

Note: In the event of any adjustment being made to the m.w. circuits, l.w. and m.b. circuits must be realigned.

1. — Isolate the signal generator output by connecting a 0.1μF capacitor in each lead; switch receiver to m.w. and rotate tuning gang to maximum capacitance.

2. — Feed in a 470kc/s a.m. signal to the junction S4-S6/C6, and adjust T3, T2 and T1 for maximum output.

3. — Transfer signal generator output to the r.f. coupling loop and loosely couple loop to the ferrite rod aerial assembly, tune receiver to 500m. and feed in a 600kc/s a.m. signal. Adjust L4 and the position of L2 on ferrite rod for maximum output.

4. — Tune receiver to 200m. and feed in a 1,500kc/s a.m. signal. Adjust C10 and C4 for maximum output.

5. — Repeat operations 3 and 4 for optimum calibration and output.

6. — Switch receiver to l.w.; tune to 1,500m. and feed in a 200kc/s a.m. signal. Adjust C12 and the position of L3 on ferrite rod for maximum output.

If aligning a receiver with an M.B. bandwidth 185-225m. proceed to operation 7. For receivers with an extended bandwidth proceed to operation 8.

7. — Switch receiver to m.b.; tune to 216m. and feed in a 1,389kc/s a.m. signal. Adjust C9 and C3 for maximum output.

8. — Switch receiver to m.b.; tune to 247m. and feed in a 1,215kc/s a.m. signal. Adjust C9 and C3 for maximum output.

9. — Seal position of L2 and L3 on ferrite rod with polystyrene dope.

