H.M.V. - 2120

Resistors

R1	5·6kΩ	B2
R2	27kΩ	B2
R3	1kΩ	B2
R4	100kΩ	C2
R5	100kΩ	C2
R6	680Ω	C3
R7	10kΩ	C2
R8	27kΩ	C3
R9	5·6kΩ	C3
R10	560Ω	C3
R11	4·7kΩ	B2
R12	5kΩ	A1
R13	800Ω	A2
R14	12kΩ	A3
R15	82kΩ	A3
R16	12kΩ	A2
R17	100Ω	A2
R18	390Ω	A3
R19	680Ω	A3
R20	5·6Ω	A3
R21	2·2Ω	A3
R22	2·2Ω	A2
R23	100Ω	B3
R24	10Ω	C3

Capacitors

C1	6·8pF	B2
C2	25pF	A2
C3	225pF	D2
C4	60pF	D1
C5	25pF	B2
C6	2,000pF	B2
C7	0·01μF	C2
C8	5,000pF	D3
C9	25pF	C2
C10	2,000pF	C2
C11	255pF	E2
C12	230pF	C1
C13	25pF	C2
C14	210pF	B2
C15	25pF	C2
C16	250pF	C2
C17	60μF*	C3
C18	0·02μF	C3
C19	250pF	C3
C20	0·02μF	C3
C21	0·02μF	B3
C22	375pF	B3
C23	0·02μF	C3
C24	0·02μF	B2
C25	0·5μF*	A2
C26	20μF	B2
C27	60μF	B3
C28	150μF	B3
C29	75μF	A3
C30	150μF	A3
C31	0·033μF*	B3
C32	0·033μF	A3

Coils †

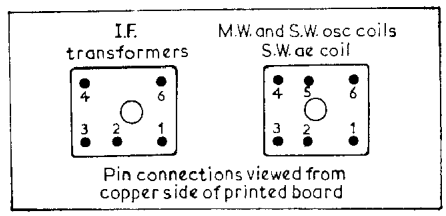
L1	—	D1
L2	1·0	B1
L3	10·0	D1
L4	—	B2
L5	—	B2
L6	—	D2
L7	—	D2
L8	2·5	D2
L9	—	C2
L10	—	D2
L11	—	D2
L12	10·0	C2
L13	—	C2
L14	10·0	C3
L15	—	C3
L16	4·5	B3
L17	—	B3
L18	15·0	—

Miscellaneous

S1-S15	—	C1
S16	—	B1
W1	OA70	B3
W2	AA120	A3

In some receivers* **C17 *and* **C25** *are 75μF,* **C31** *is 0·1μF, and a 100Ω resistor is fitted in series with* **TR3** *base.*

†*Approximate d.c. resistance in ohms.*

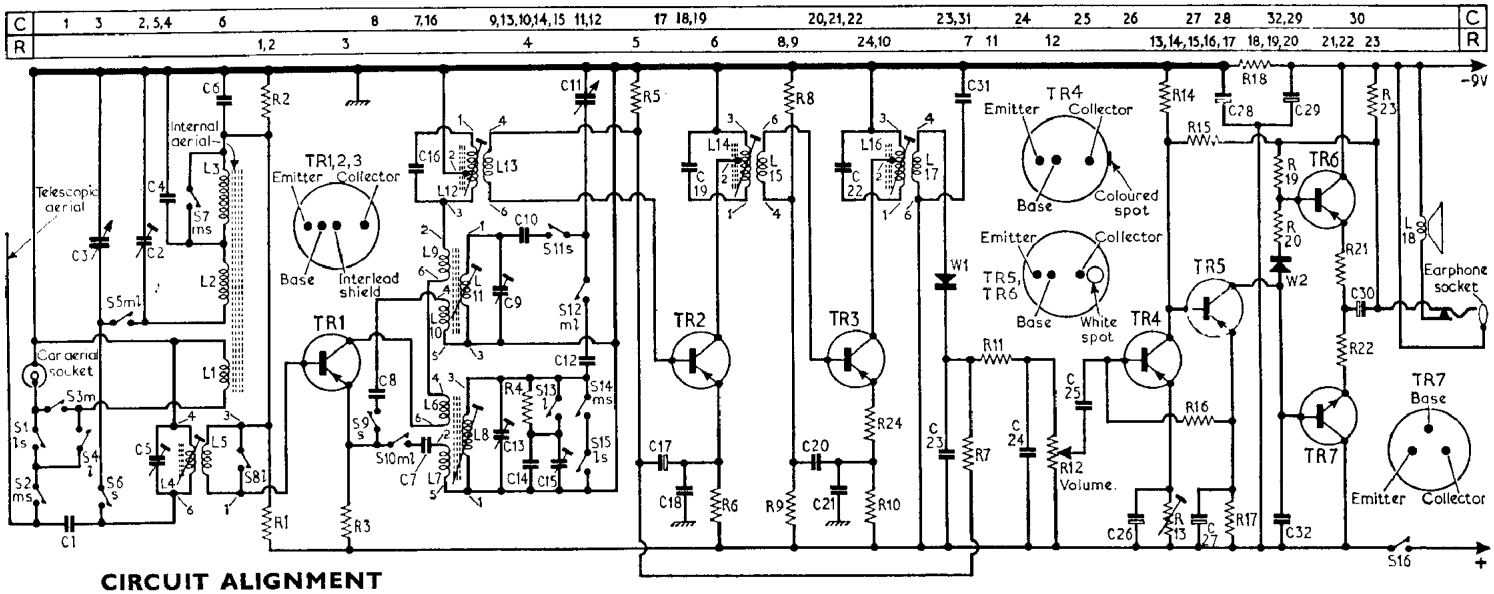


Transistor Table

Transistor			Emitter (V)	Base (V)
TR1	AF115	..	1·0	1·1
TR2	AF117 ..	..	0·45	0·65
TR3	AF117 ..	..	0·95	1·1
TR4	OC71*	..	0·2	0·3
TR5	OC81D*	..	0·55	0·7
TR6	OC81*	..	5·0†	5·15
TR7	AC127*	..	5·0†	4·85

In some receivers* **TR4 *may be AC155,* **TR5** *AC113,* **TR6** *AC154 and* **TR7** *AC157.*

†*Measured at the junction of* **R21** *and* **R22.**



CIRCUIT ALIGNMENT

Equipment Required.—An a.m. signal generator modulated 30 per cent; an audio output meter with an impedance of 15Ω, or alternatively a model 8 Avometer set to its 10V a.c. range; a 0.1μF capacitor and a 25pF capacitor, and a length of insulated wire to be used as an r.f. coupling loop.

During alignment the input signal level should be regulated to maintain a receiver output level of 50mW.

1.—Switch receiver to m.w. and turn the tuning gang to maximum capacitance. Set the volume control to maximum output. Connect the audio output meter in place of the loudspeaker or connect the Avometer across the speaker speech coil.

2.—Connect the signal generator via the 0.1μF capacitor across the tuning gang aerial section **C3**. Feed in a 475kc/s 30 per cent modulated signal and adjust **L16, L14** and **L12** for maximum output, repeating until there is no further improvement.

3.—Connect the signal generator to the r.f. coupling loop and loosely couple the loop to the ferrite rod aerial. Tune receiver to 500m. Feed in a 600kc/s signal and adjust **L8** and **L2** for maximum output.

4.—Tune receiver to 200m. Feed in a 1,500kc/s signal and adjust **C13** and **C2** for maximum output.

5.—Repeat operations 3 and 4 for correct calibration.

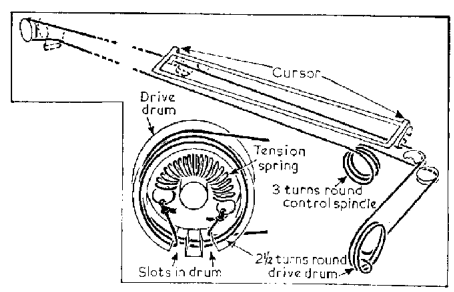
6.—Switch receiver to l.w. and adjust the tuning so that the cursor lies exactly under the "14" of 1,400m on l.w. scale. Feed in a 220kc/s signal and adjust **C15** and **L3** for maximum output.

7.—Disconnect the lead from the telescopic aerial tag and connect the signal generator via the 25pf capacitor to the lead. Unscrew the core of **L11** until it just protrudes from its can.

8.—Switch receiver to s.w. and adjust the tuning so that the m.w. cursor coincides with the centre of the 500m mark on the m.w. scale. Feed in a 6.77Mc/s signal and screw in the core of **L11** to obtain maximum output from the third peak. Then adjust **L4** for maximum output.

9.—Adjust the tuning control so that the m.w. and l.w. cursor coincides with the centre of the 200m mark on the m.w. scale. Feed in a 15.45Mc/s signal and adjust **C9** and **C5** for maximum output.

10.—Repeat operations 7, 8 and 9 for correct calibration and output.



Scale drive assembly shown with the tuning gang fully closed. About 30in. of nylon braided cord is required for replacement, the actual length between the spring being 25in