

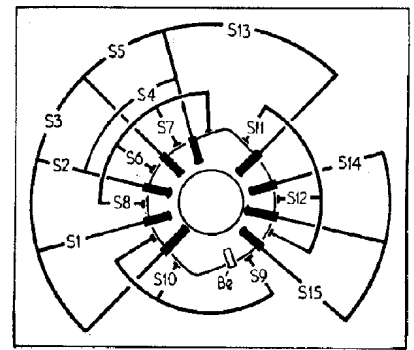
Resistors											
R1	18k $\Omega$	D2		C5	1,000pF	C2		L7	—	†	
R2	4.7k $\Omega$	D2		C6	180pF	C3		L8	—	B3	
R3	1k $\Omega$	B2		C7	165pF	D2		L9	—	B3	
R4	100 $\Omega$	C2		C8	0.1 $\mu$ F	B2		L10	—	B3	
R5	33k $\Omega$	B1		C9	0.1 $\mu$ F	B2		L11	—	C3	
R6	8.2k $\Omega$	B2		C10	10 $\mu$ F	B2		L12	—	C3	
R7	680 $\Omega$	B2		C11	0.02 $\mu$ F	B2		L13	—	C3	
R8	15k $\Omega$	B2		C12	0.02 $\mu$ F	B2		L14	—	C2	
R9	4.7k $\Omega$	B2		C13	0.01 $\mu$ F	B2		L15	—	C1	
R10	560 $\Omega$	B2		C14	0.01 $\mu$ F	A2		L16	—	B2	
R11	820 $\Omega$	A2		C15	10 $\mu$ F	A1		L17	—	B2	
R12	2.2k $\Omega$	B1		C16	75 $\mu$ F	B2		L18	—	B3	
R13	27k $\Omega$	B1		C17	200 $\mu$ F	A2		L19	—	B3	
R14	10k $\Omega$	A2		C18	200 $\mu$ F	A1		L20	25 $\Omega$	A2	
R15	820 $\Omega$	A2		C19	100 $\mu$ F	A2		<b>Miscellaneous</b>			
R16	82 $\Omega$	A2		C20	560pF	B2		M1	OA70	B2	
R17	2.2k $\Omega$	A2		C21	39pF	C2		TH1	VA1034	A2	
R18	82 $\Omega$	A2		C22	560pF	C2		TH2	VA1034	A2	
R19	2.2k $\Omega$	A2		C23	250pF	B2		TX1	—	A3	
R20	3.3 $\Omega$	A2		C24	250pF	B3		S1-S15	—	D3	
R21	3.3 $\Omega$	A2		C25	3pF	D3		S16, S17	—	A1	
R22	330 $\Omega$	B2		TC1	5pF	B1					
R23	4.7 $\Omega$	A2		TC2	25pF	C1					
R24	560 $\Omega$	A1		TC3	5pF	C2					
R25	100k $\Omega$	D2		VC1	—	C2					
VR1	5k $\Omega$	A1		VC2	—	C2					

Capacitors							
C1	0.01 $\mu$ F	D2		L1	—	B1	
C2	1,000pF	D2		L3	—	C1	
C3	0.022 $\mu$ F	C2		L4	—	B1	
C4	2,200pF	C2		L5	—	C1	
				L6*	—	C1	

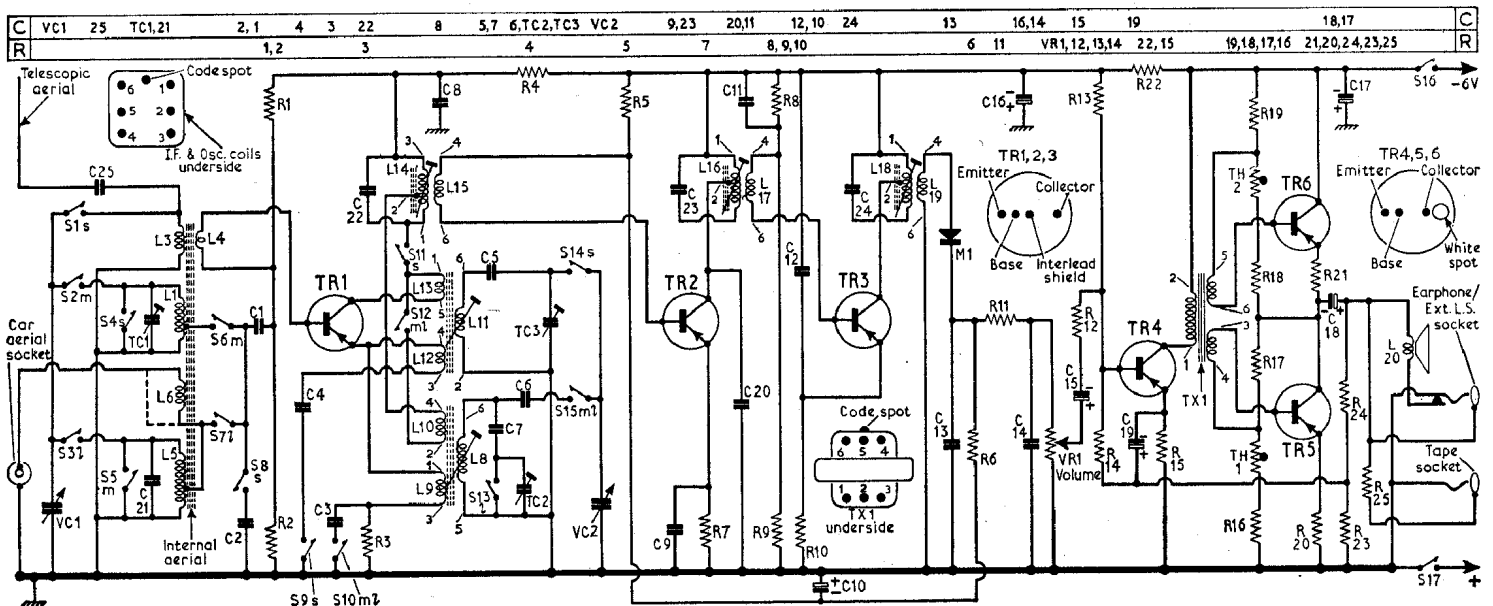
Coils							
L1	—	B1					
L3	—	C1					
L4	—	B1					
L5	—	C1					
L6*	—	C1					



Transistor Table

Transistor	Emitter (V)	Base (V)	Collector (V)
TR1 AF115	0.8	0.94	4.6
TR2 AF117	0.8	0.93	4.6
TR3 AF117	0.9	1.1	4.6
TR4 OC81D	1.0	1.1	5.5
TR5 OC81	—	0.2	3.0
TR6 OC81	3.0	3.2	6.0

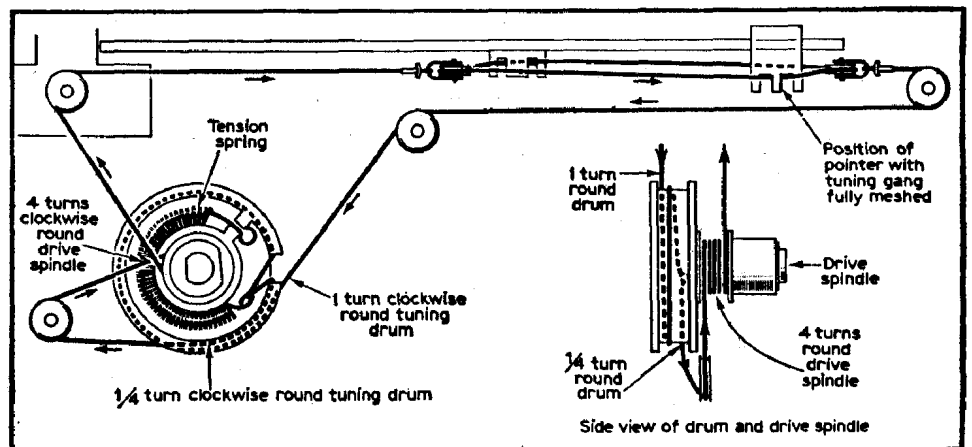
\*Not fitted in some receivers.  
†No component.  
‡330 $\Omega$  in some receivers.  
\*May vary from 47k $\Omega$  to 330 k $\Omega$ .  
\*Formed by lead capacitance.  
In some receivers C25 is a 10pF capacitor.



## CIRCUIT ALIGNMENT

Alignment points 1-7 which are mentioned in the alignment procedure operations, refer to markings which are to be found on the upper edge of the scale backing plate (see chassis illustration).

- Equipment Required.**—An audio output meter with an impedance of 25 $\Omega$ ; a 0-50mA d.c. milli-ammeter; an a.m. signal generator modulated 30 per cent; an r.f. coupling coil made up by winding 14 turns of 18 s.w.g. enamelled copper wire on a 1in former to a length of 1-14in, and a 0.01 $\mu$ F capacitor.
- 1.—Connect the audio output meter in place of the loudspeaker and connect the d.c. milli-ammeter in series with the battery supply lead. During alignment the output should not be allowed to exceed 50mW and the total receiver current should not exceed 30mA. maximum output and repeat. Remove the signal generator from TR1 base and the short-circuit from L1.
  - 4.—Connect the signal generator to the coupling coil and place the coil about six inches from the ferrite rod aerial. Turn the tuning gang to the fully open position and check that the cursor lines up with alignment mark 7.
  - 5.—Switch receiver to l.w. and set the cursor to mark 2. Feed in a 170kc/s signal and adjust L8 and L5 for maximum output.
  - 6.—Switch receiver to m.w. and set the cursor to mark 6. Feed in a 1,500kc/s signal and adjust TC2 for maximum output.
  - 7.—Set the cursor to mark 1. Feed in a 600kc/s signal and adjust L1 for maximum output.
  - 8.—Set the cursor to mark 6. Feed in a 1,500kc/s signal and adjust TC1 for maximum output.
  - 9.—Repeat operations 7 and 8.
  - 10.—Switch receiver to s.w. and set the cursor to mark 3. Feed in a 6.85Mc/s signal and adjust L11 and L3 for maximum output.
  - 11.—Set the cursor to mark 5. Feed in a 15Mc/s signal and adjust TC3 for maximum output.
  - 12.—Repeat operations 10 and 11.



Sketch of the tuning drive cord system as seen when viewed from the foil side of the printed panel.

MASTERADIO - D514