

## Resistors

R1	3.3k $\Omega$	B2
R2	33k $\Omega$	B3
R3	470k $\Omega$	B2
R4	47k $\Omega$	A3
R5	220k $\Omega$	B3
R6	22k $\Omega$	B3
R7	1.5M $\Omega$	C3
R8	330k $\Omega$	C3
R9	100k $\Omega$	C3
R10	470k $\Omega$	A3
R11	470k $\Omega$	A2
R12	500k $\Omega$	A1
R13	500k $\Omega$	A1
R14	220 $\Omega$	C2
R15	10M $\Omega$	B2
R16	100k $\Omega$	C2
R17	470k $\Omega$	C2
R18	1k $\Omega$	C3
R19	22k $\Omega$	C2
R20	22k $\Omega$	C2
R21	470k $\Omega$	C3
R22	470k $\Omega$	C2
R23	6.8k $\Omega$	C2
R24	220 $\Omega$	B3
R25	10k $\Omega$	A3
R26	560 $\Omega$	A3
R27	200 $\Omega$	A1
R28	150 $\Omega$	A1
R29	150 $\Omega$	A1
R30	10k $\Omega$	C2
R31	10k $\Omega$	C3

## Capacitors

C1	3,000pF	A2
C2	137pF	C1
C3	523pF	B1
C4	25pF	B1
C5	220pF	B2
C6	200pF	B3
C7	200pF	B3
C8	100pF	B3
C9	56pF	B3
C10	390pF	A3
C11	395pF	C1
C12	523pF	B1
C13	25pF	B1
C14	10pF	B1
C15	0.1 $\mu$ F	B2
C16	200pF	C3
C17	200pF	C3
C18	220pF	C3
C19	220pF	C3
C20	2,000pF	C3
C21	5,000pF	B2
C22	0.02 $\mu$ F	A3
C23	0.02 $\mu$ F	A3
C24	0.01 $\mu$ F	A3
C25	800pF	A1
C26	0.04 $\mu$ F	B2
C27	0.01 $\mu$ F	C2
C28	0.01 $\mu$ F	C2
C29	0.01 $\mu$ F	C2
C30	0.01 $\mu$ F	C2
C31	0.1 $\mu$ F	C2
C32	50 $\mu$ F	B3

C33	2,000pF	C1
C34	8 $\mu$ F	A2
C35	40 $\mu$ F	A2
C36	40 $\mu$ F	A2
C37	0.02 $\mu$ F	C1
C38	100pF	C2

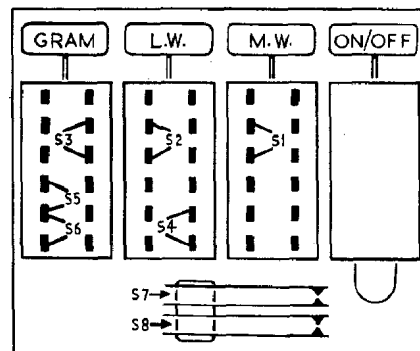
## Coils

L1	5.0	C1
L2	—	B1
L3	—	B2
L4	2.0	B2
L5	5.5	B3
L6	5.5	B3
L7	5.5	C3
L8	5.5	C3
L9	—	A1

## Miscellaneous

T1	250-0*	C1
PL1	—	B1
PL2	12V 1W	B1
S1-S6	—	C1
S7, S8	—	B1
X1	—	A3
X2	—	A3

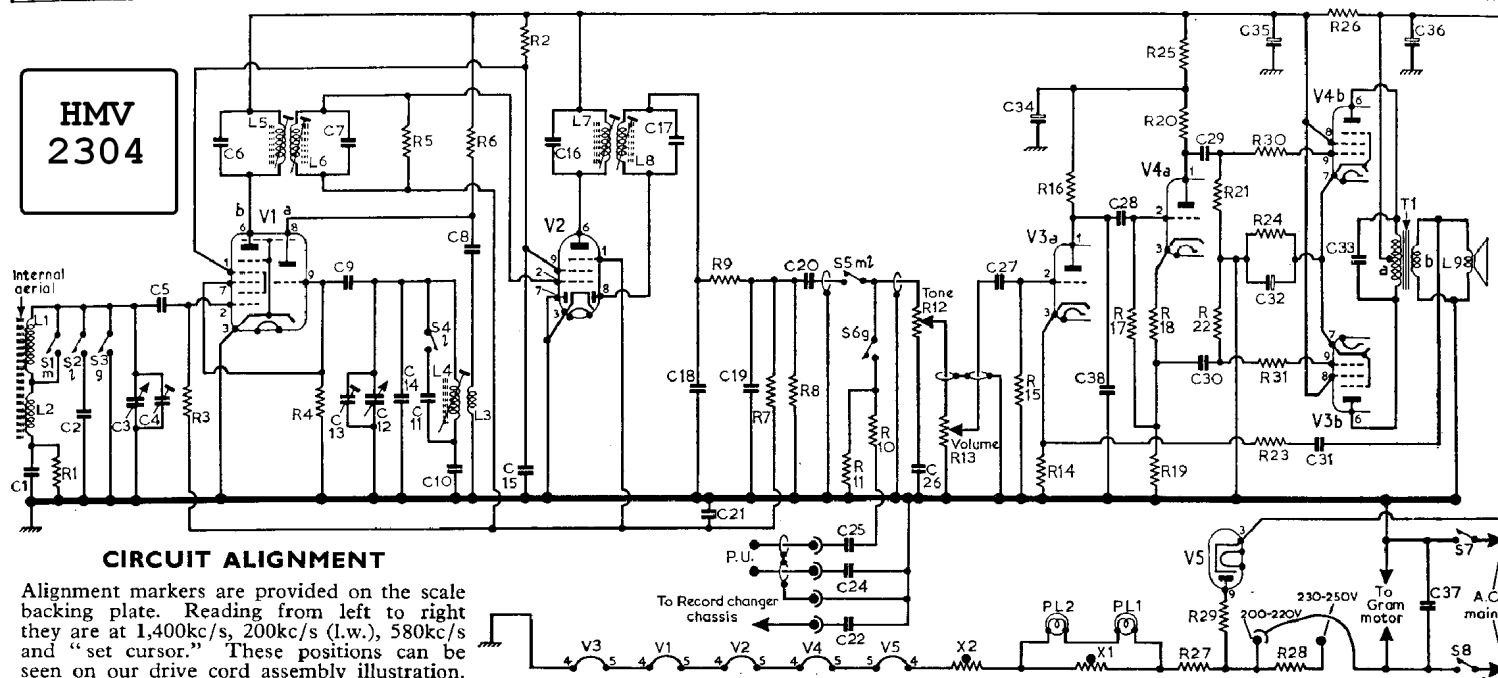
\*Approximate d.c. resistance in ohms.



Valve Table

valve	Anode (V)	Screen (V)	Cathode (V)
V1 UCH81	114	—	—
V2 UBF89	202	51	—
V3 UCL83	202	128	—
V4 UCL83	115	—	—
V4 UCL83	209	202	12.5
V4 UCL83	150	—	25.0
V5 UY85	209	202	12.5
V5 UY85	—	—	212.0

C1	2	3	4.5	6	7,9,13,12,14	11	10,8	15	16	17	18,21	19	20	25,24,22	26	27	34	38,28	29,30	32,35	31	33	36,37	C
R	1	3	4	5	6	2	9	7	8	11	10	12	13	X2	15	14	16	X1	17,18,19,25,20,27,21,22,29,30,24,31,2,32,28,26	R				



## CIRCUIT ALIGNMENT

Alignment markers are provided on the scale backing plate. Reading from left to right they are at 1,400kc/s, 200kc/s (l.w.), 580kc/s and "set cursor." These positions can be seen on our drive cord assembly illustration.

**Equipment Required.**—An a.m. signal generator; an audio output meter; a 0.1 $\mu$ F capacitor and an r.f. coupling loop.

- 1.—Connect the audio output meter in place of the loudspeaker and connect the signal generator via the 0.1 $\mu$ F capacitor to V1 pin 2. Switch receiver to m.w. and turn the tuning gang to the fully closed position.
- 2.—Turn the volume control to maximum. Feed in a 470kc/s modulated signal and adjust the cores of L8, L7, L6 and L5 for maximum audio output, keeping the output level as low as possible by reducing the signal input.
- 3.—Disconnect the signal generator from V1 and connect it to the r.f. coupling loop. Loosely couple the loop to the ferrite rod aerial. With the tuning gang fully closed, adjust the cursor to coincide with the mark at the right-hand end of the scale backing plate.

- 4.—Tune receiver to the 580kc/s mark, feed in a 580kc/s signal and adjust L4 and L2 adjusting ring, for maximum output.
- 5.—Tune receiver to the 1,400kc/s mark, feed in a 1,400kc/s signal and adjust C13 and C4 for maximum output.
- 6.—Repeat operations 4 and 5 until there is no further improvement.
- 7.—Switch receiver to l.w. and tune to the 200kc/s mark. Feed in a 200kc/s signal and adjust L1 (ferrite rod winding) for maximum output.

## GENERAL NOTES

**Stylus Replacement.**—When replacing worn stylus, the following types should be used: L.P.: GC2-1 (red); 78; GC2-3 (green). To remove the worn stylus, grip the rear of the stylus with a pair of tweezers and gently pull from the single socket mounting.

**Switches.**—Switch numbers on the circuit diagram (S1-S6) are coded with suffix letters m, l and g to indicate their closed position, where m means medium, l means long and g means gram. They are located in a press-button unit shown in location reference C1, and separately below. S7 and S8 form a double-pole on/off switch which is operated by an extension to the on/off press-button.

