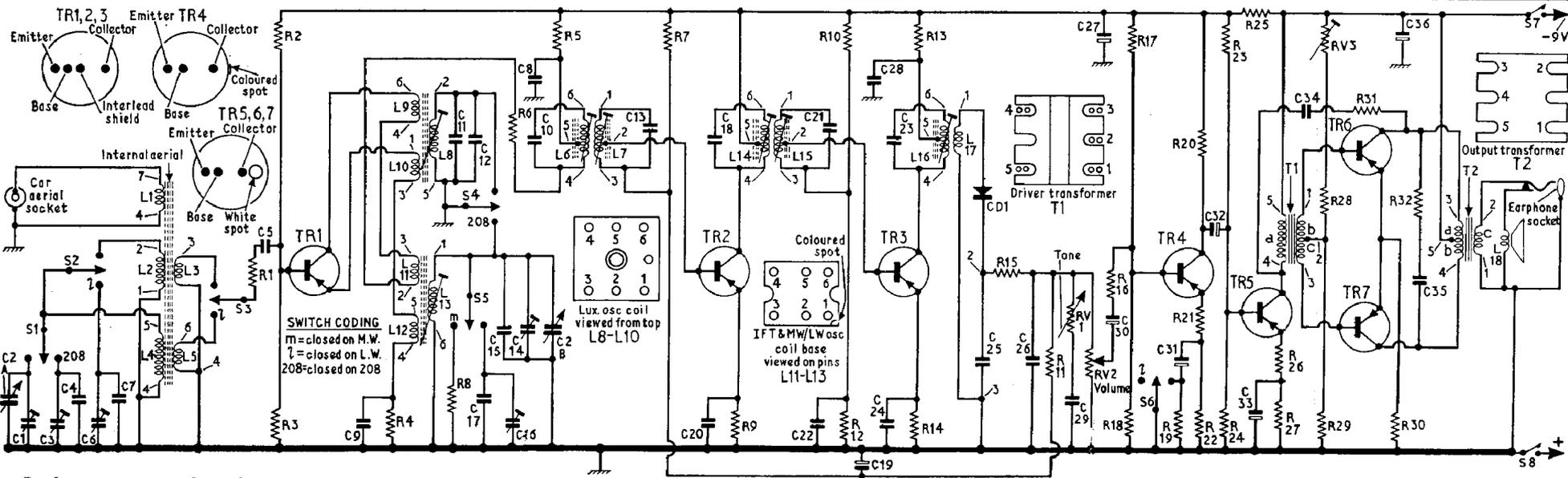


C	2A,1,3	4	6	7	5	9	11	12,17,15,16,14,8,10,2B	13	20,18	2,2,21	19,28,24,23	25	26	29	27,30	31	32	33	34	36,35	C
R					1	2,3	4	8	6	5	7	9	10,12	13,14	15	11	RV1,RV2,16,17,18	19,20,21,22,23,24,25,26,27	RV3,28,29,31,30,32			R



Resistors	Capacitors	Coils*
R1	C1	L1
R2	C2A	L2, L3
R3	C2B	L4
R4	C3	L5
R5	C4	L6, L7
R6	C5	L8
R7	C6	L9
R8	C7	L10
R9	C8	L11, L12
R10	C9	L13
R11	C10	L14, L15
R12	C11	L16
R13	C12	L17
R14	C13	L18
R15	C14	
R16	C15	
R17	C16	
R18	C17	
R19	C18	
R20	C19	
R21	C20	
R22	C21	
R23	C22	
R24	C23	
R25	C24	
R26	C25	
R27	C26	
R28	C27	
R29	C28	
R30	C29	
R31	C30	
R32	C31	
RV1	C32	
RV2	C33	
RV3	C34, C35	
	C36	

Miscellaneous	Transformers*
CD1	T1
S1-S6	T2
S7, S8	

CIRCUIT ALIGNMENT

Alignment can be carried out with the chassis left in its case, but the back cover should be removed.

During alignment the signal input level should be adjusted to maintain a receiver output of 50mW (20mW if the loudspeaker is left in circuit). If an output meter is connected with the loudspeaker still in circuit, care should be taken to ensure that the power output from the receiver does not rise to a level sufficiently high to damage the output transistors (70mW). For r.f. alignment under conditions of interference, the receiver may be temporarily desensitised by connecting an 8.2kΩ resistor between the junction of R7 and R11 and chassis.

Equipment Required.—An a.m. signal generator modulated 30 per cent at 400c/s; an audio output meter with a 0-100mW range and an impedance to match 15Ω; one 10pF capacitor and one 0.1μF capacitor, and a non-metallic trimming tool.

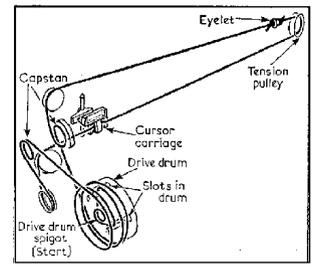
- 1.—Switch receiver to m.w. and tune to about 300m. Connect to signal generator via a 0.1μF capacitor to the junction of R1 and S3 and switch on for about 15 minutes before alignment is commenced. Connect the audio output meter in place of the loudspeaker. A convenient method is to connect the meter via the earphone socket using the correct type of plug.
- 2.—Turn the volume control to maximum and feed in a 470kc/s 30 per cent modulated signal. Adjust the cores of L16, L15, L14, L7 and L6 in that order once only for maximum audio output. Note: the outer tuning peak is the correct one for these adjustments.
- 3.—Fully mesh the tuning gang and check that the cursor lines up with the datum mark at the l.f. end of the tuning scale. Connect the signal generator via a 10pF capacitor to the car aerial socket.
- 4.—Tune receiver to 500m. Feed in a 600kc/s signal and adjust the core of L13 for maximum output.
- 5.—Tune receiver to 200m. Feed in a 1,500 kc/s signal and adjust C14 for maximum output.
- 6.—Repeat operations 4 and 5 and check calibration at both points.
- 7.—Switch receiver to l.w. and tune to 1,400m. Feed in a 214kc/s signal and adjust C16 for maximum output.
- 8.—Switch receiver to "208" and feed in a 1,439kc/s signal, modulated 80 per cent at 5kc/s, at a level of 1mV. Adjust the core of L8 for minimum output. As the core is screwed through the correct tuning point, the output will rise on either side of minimum. Finally check the tuning against the broadcast signal from "Radio Luxembourg".
- 9.—Switch receiver to m.w. and tune to 500m. Feed in a 600kc/s signal and adjust L2 for maximum output.
- 10.—Tune receiver to 200m. Feed in a 1,500kc/s signal and adjust C1 for maximum output.
- 11.—Repeat operations 9 and 10 for optimum gain at both points.
- 12.—Switch receiver to l.w. and tune to 1,400m. Feed in a 214kc/s signal and adjust C6 for maximum output.
- 13.—Switch receiver to "208". Feed in a 1,439kc/s signal and adjust C3 for maximum output.

Ferrite Rod Aerial Coils.

The ferrite rod aerial coils are unlikely to require adjustment but, if necessary, L2 may be adjusted for maximum output, as required in operation 9, by sliding the former along the ferrite rod. L.w. coil L4 should not be moved.

If the ferrite aerial rod is replaced, the coils should be set as follows with the receiver in its cabinet.

- 1.—Ensure that the original sleeving is retained between the formers and the rod, and set the m.w. coil former 1/8 in from its end of the rod and the l.w. former 1 in from the other end of the rod.
- 2.—Switch receiver to l.w. and tune to 1,700m. Feed in a 176kc/s modulated signal at the car aerial socket and adjust L4 for maximum output.
- 3.—Tune receiver to 1,200m. Feed in a 250kc/s signal and adjust C6 for maximum output.
- 4.—Carry out alignment of the m.w. coil L2 as given previously in operations 9 and 10. Finally seal the coil formers with wax.



Transistor Table

Transistor	Emitter (V)	Base (V)	Collector (V)
TR1	AF117	0.95	1-1
TR2	AF117	0.6	0.85
TR3	AF117	0.9	1.2
TR4	OC71	0.75	0.8
TR5	OC810	1.05	1-1
TR6	OC81	0.02	0-16
TR7	OC81	0.02	0-16

BUSH - TR130