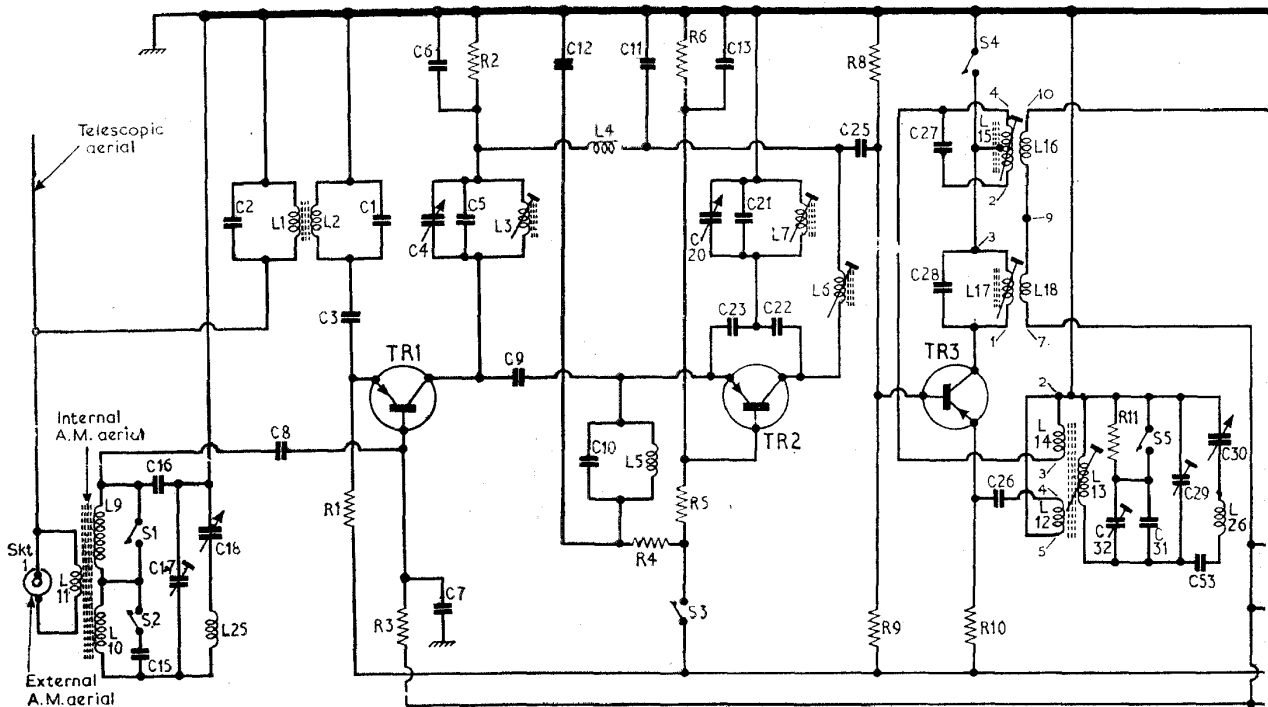


				Resistors		Capacitors	
C35	0.1μF	L10	1-1	R1	330Ω	C1	32pF
C36	1,000pF	L11	—	R2	100Ω	C2	32pF
C37	2,200pF	L12	—	R3	4.7kΩ	C3	0.003μF
C38	150pF	L13	1-9	R4	390Ω	C4	14pF
C39	1,000pF	L14	—	R5	4.7kΩ	C5	12pF
C40	100pF	L15	3-0	R6	22kΩ	C6	510pF
C41	0.01μF	L16	—	R7	33kΩ	C7	1,000pF
C42	100pF	L17	—	R8	6.8kΩ	C8	0.01μF
C43	100pF	L18	—	R9	820Ω	C9	5pF
C44	5,000pF	L19	—	R10	220kΩ	C10	22pF
C45	5,000pF	L20	3-0	R11	100kΩ	C11	510pF
C46	0.01μF	L21	2-1	R12	680Ω	C12	510pF
C47	20μF	L22	5-6	R13	22kΩ	C13	1,000pF
C48	100μF	L23	—	R14	4.7kΩ	C14	56pF
C49	100μF	L24	—	R15	680Ω	C15	1,000pF
C50	0.01μF	L25	—	R16	6.8kΩ	C16	40pF
C51	0.01μF	L26	—	R17	6.8kΩ	C17	226pF
C52	0.05μF	L27	35-0	R18	6.8kΩ	C18	14pF
C53	250pF			R19	6.8kΩ	C19	7pF
C54	100μF			R20	470Ω	C20	47pF
C55	350μF			R21	18kΩ	C21	3.3pF
C56	5,000pF			R22	560Ω	C22	0.5μF
C58	0.01μF			R23	180Ω	C23	5,000pF
				R24	820Ω	C24	0.02μF
				R25	330kΩ	C25	500pF
				R26	8.2kΩ	C26	220pF
				R27	8.2kΩ	C27	40pF
				R28	100Ω	C28	204pF
				R29	4.7Ω	C29	200pF
				R30	10kΩ	C30	40pF
				R31	20kΩ	C31	5,000pF
				R32	330Ω	C32	10μF
				R33		C33	
						C34	

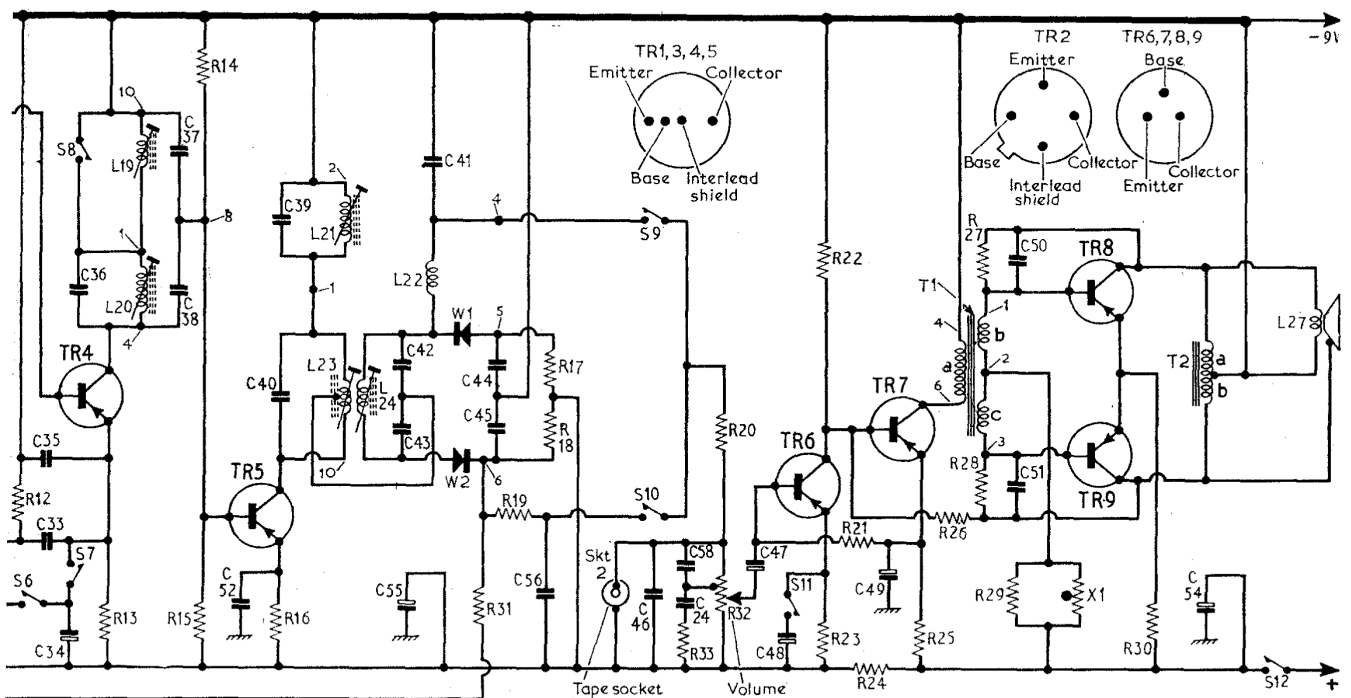
Switch Table

Switch	F.M.	M.W.	L.W.
S1
S2
S3
S4
S5
S6
S7
S8
S9
S10
S11

C	15, 16, 17	18	2	8	3	1	4, 6, 7, 5	9	12	10	11	20, 13, 23, 21, 22	25	27, 28	26	32	31	29, 53, 30
R																		
L	9, 10, 11	25	1, 2													15, 16, 17, 18, 12, 13, 14		26



35,33,36,34	37,38	52	39,40	42,43,55,41	44,45	56	46,58,24	47	48	49	50,51	54	C			
12	13	14,15	16	31	19	17,18	33	20,32	22,23,21,24	25	26	27,28,29	X1	30	R	
	19,20			21,23,24	22								T1	T2	27	L



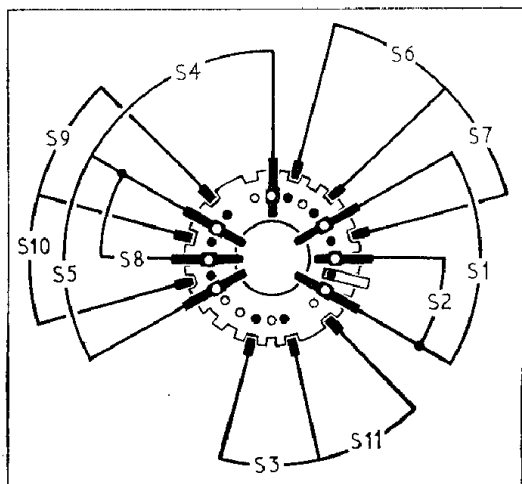
CIRCUIT ALIGNMENT

Equipment Required.—An a.m. signal generator 30 per cent modulated; an f.m. signal generator; an audio output meter with an impedance of 35Ω , or alternatively a $20,000\Omega/V$ testmeter set to its 2.5V a.c. range; a length of insulated wire for use as an r.f. coupling loop and a $0.1\mu F$ d.c. isolating capacitor.

During alignment the input signal level should be adjusted to maintain an audio output of 50mW (or 1V), except where otherwise stated.

F.M. Circuits

- 1.—Connect the audio output meter in place of the loudspeaker, or connect the 2.5V a.c. voltmeter across the internal loudspeaker terminals. Set the volume control at maximum.
- 2.—Switch receiver to f.m. and connect the f.m. signal generator via the $0.1\mu F$ capacitor to the junction of L6 and C25 (tuner tag 8). Feed in a 10.7Mc/s 25kc/s deviated signal and adjust the cores of i.f. coils L17 (location reference F4), L19 (F4), L23 (E5) and L24 (E5) for maximum

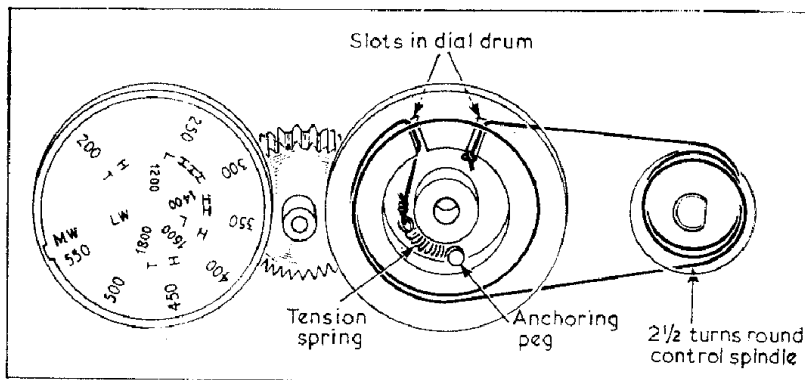


Switch wafer seen from rear of control panel

- output, reducing the input level to a minimum of $25\mu V$ whilst maintaining an output not exceeding 50mW. Adjust the volume control if necessary to maintain the correct output level while at minimum input.
- 3.—Change the input to 10.7Mc/s 30 per cent modulated and adjust L24 (E5) for minimum output (maximum a.m. rejection). Repeat until there is no further improvement with an input of $25\mu V$, adjusting the volume control as necessary.
 - 4.—Check that with the tuning gang at maximum capacitance, the scale marker below 88Mc/s on the f.m. tuning scale, coincides with the red pointer. Connect the f.m. signal generator to an uncoupled telescopic aerial connection and tune receiver to 96 Mc/s. Feed in a 96Mc/s f.m. signal 25kc/s deviated, and adjust L6 (F4), L7 (E4) and L3 (E4) for maximum output. Repeat if calibration is not correct over the entire tuning range.

A.M. Circuits

- 1.—Switch receiver to m.w. and connect the a.m. signal generator via the $0.1\mu F$ capacitor across the tuning gang aerial section C18. Feed in a 475kc/s 30 per cent modulated signal and adjust the cores of i.f. coils L15 (location reference F5), L20 (F4)



- and L21 (E5) for maximum output. Repeat until there is no further improvement.
- 3.—Check that with the tuning gang at maximum capacitance, the scale marker below 88Mc/s on the f.m. tuning scale coincides with the red pointer. Connect the a.m. signal generator to the r.f. coupling loop and loosely couple the loop to the ferrite rod aerial. If necessary rotate the receiver to reduce interference from all external signals.
 - 4.—Switch receiver to m.w. and tune to 500m. Feed in a 600kc/s signal and adjust L13 (G5) and L10 adjusting ring for maximum output.
 - 5.—Tune receiver to 200m. Feed in 1,500kc/s signal and adjust C29 (B2) and C17 (C2) for maximum output.
 - 6.—Switch receiver to l.w. and tune to 1,500m. Feed in a 200kc/s signal and adjust C32 (B3) and L9 (ferrite rod) for maximum output.

Drive-Cord Replacement.—To fit a replacement drive cord approximately 24 inches of nylon braided cord is required. First remove the chassis as described under "Dismantling," then pull off the control knobs; removal of knots is facilitated by using a "puller" of stout cord wound round behind the knob. Take out six cross-headed and one slotted countersunk screws securing the control escutcheon to the chassis and lift the escutcheon clear to the limit of the leads.

Insert the tip of a fine knife blade under the printed v.h.f. tuning scale and lever the scale disc away from its drum to expose the drive cord tension spring. Fit the new cord as shown in the sketch in col. 4. Refit the v.h.f. tuning scale and secure with a suitable adhesive, making sure that the locating key is correctly located in the slot in the drum.

Switches.—S1-S11 are the waveband switches which are mounted in a rotary wafer unit shown in location reference B2. The switch tag connections are given in a drawing in col. 3 and the operating condition of each switch; closed (C), or open (dash), for each position of the waveband control is shown under the appropriate heading in the switch table in col. 1. The battery on/off switch S12 is operated by the volume control R32.

Battery.—9V Ever Ready PP9, Drydex DT9, Siemens TR9 or Vidor T6009.

Drive cord assembly drawn with the a.m. tuning disc removed showing method of threading cord round dial drum. Removal and replacement of the tuning disc is described under "Drive Cord Replacement"