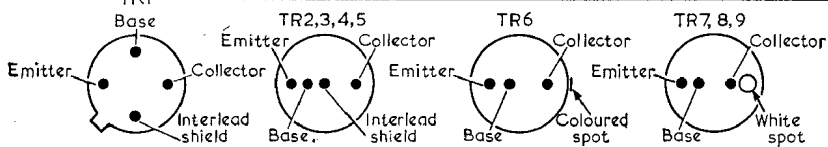
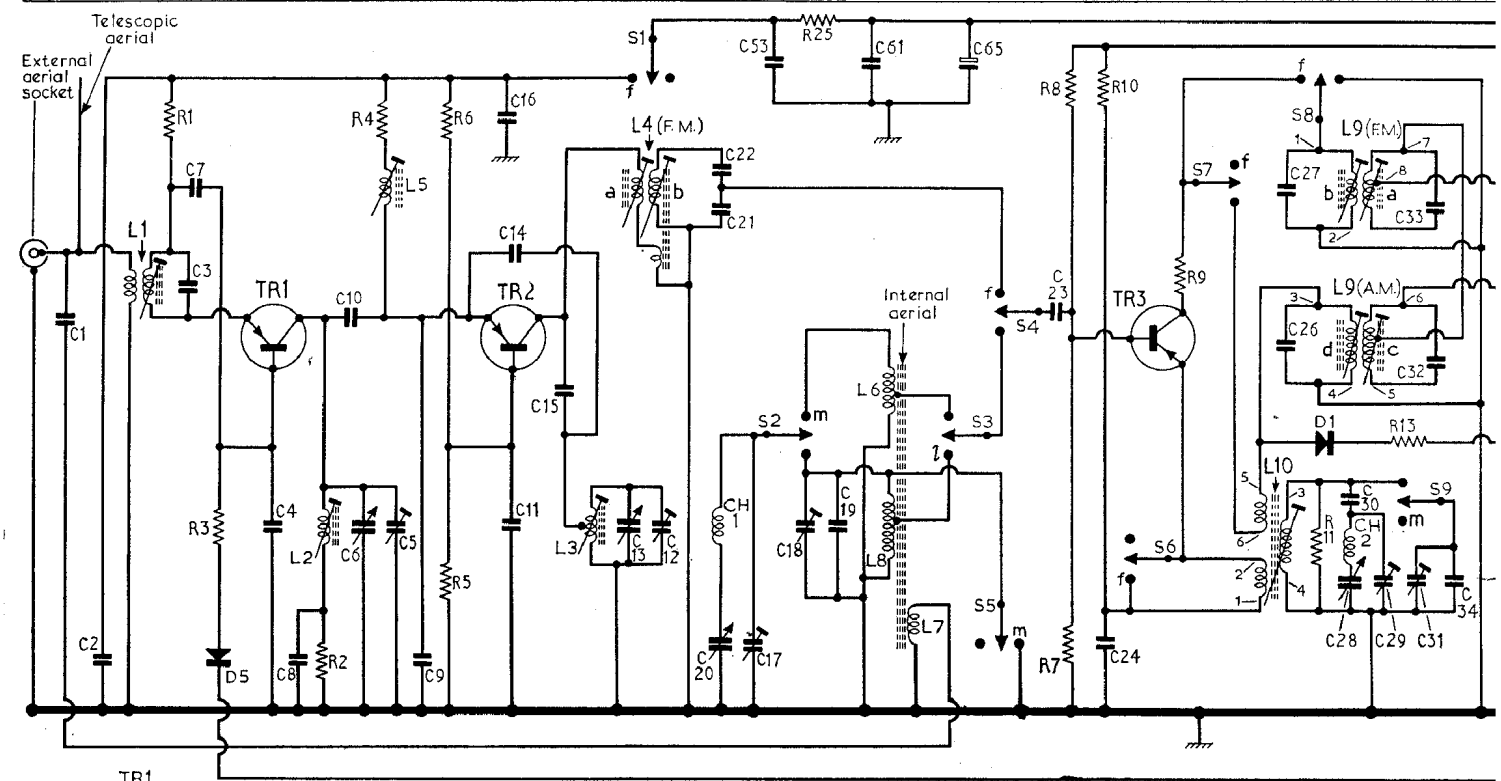
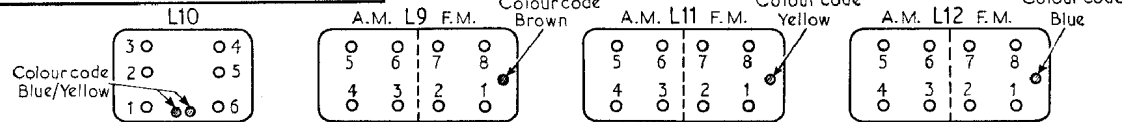
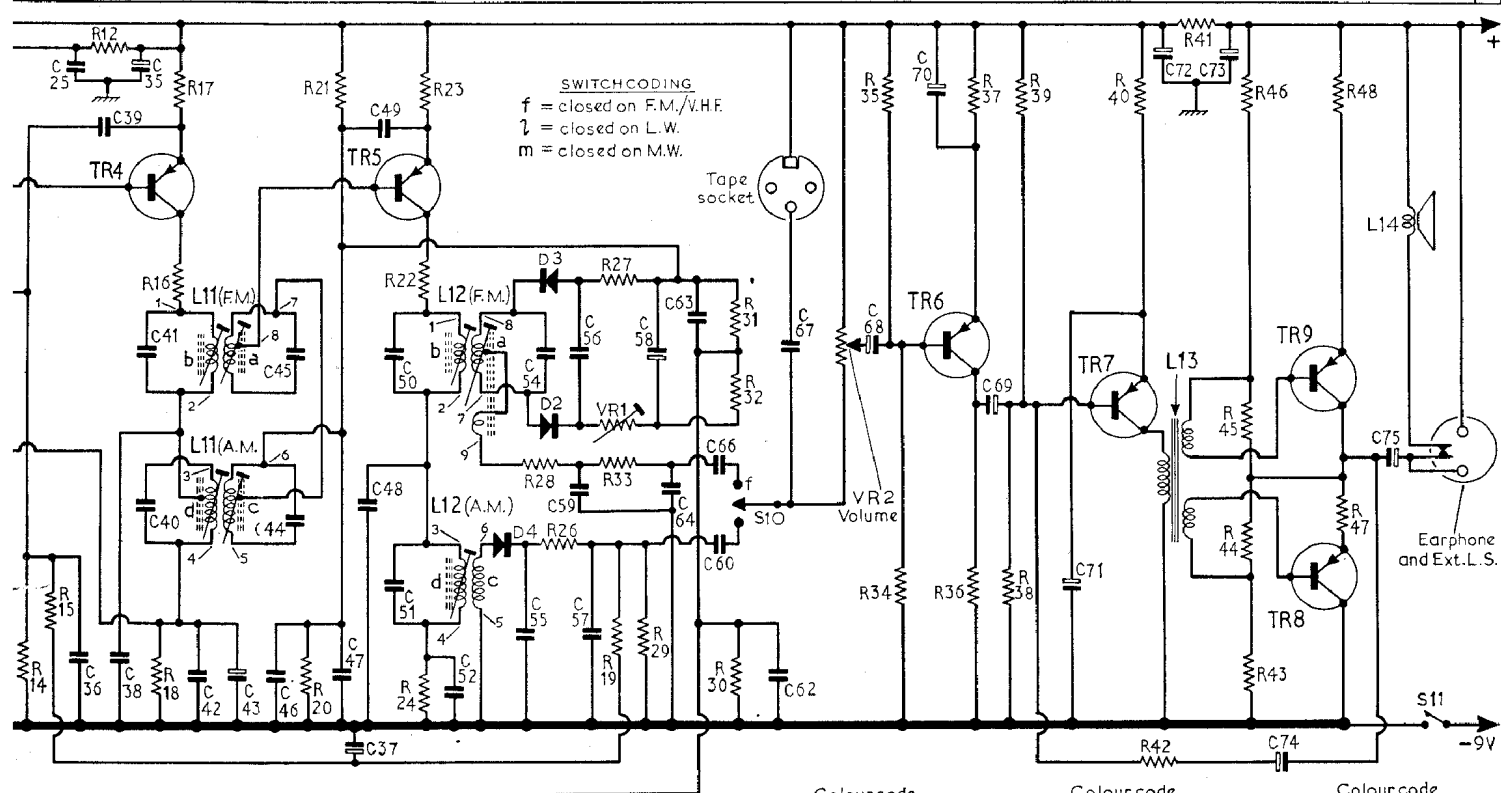


C	1	2	3,7	4	8	10,6	5	9	16,11,14	15	13	12	20,21,22,17,53,18	19	61	65	23	24	27,26	30,28,29,31,33,32,34	
R		1	3		2		4	5,6					25				7,8	10	9	11	13



DECCA - PT90/A

25,36,39,38,35,41,40,42,43	46,45,44,47,37,48,49,50,51,52	55,54,56,59,57	58,64,63,66,60	62,67	68	70	69	71	72	73	74	75	C
14 15	12 18,17,16	20 21	23,22,24	28,26	19,27,VR1,33,29	30,31,32	VR2	35,34	37,36,38,39	40,42	41 46,45,44,43	48,47	R



VIEWED FROM UNDERSIDE OF BASES

Resistors			R39	18kΩ	E3	C25	0.1μF	B1	C64	0.022μF	B1	L8	—	A1
R1	330Ω	F4	R40	1kΩ	E3	C26	560pF	C2	C65	500μF	B2	L9	—	C2
R2	100Ω	F4	R41	100Ω	D3	C27	180pF	C2	C66	0.22μF	B1	L10	—	B1
R3	1kΩ	F4	R42	47kΩ	E3	C28	238pF	F4	C67	0.1μF	E3	L11	—	B2
R4	3.3kΩ	F4	R43	2.2kΩ	D3	C29	30pF	B1	C68	10μF	E3	L12	—	B2
R5	10kΩ	F4	R44	100Ω	D3	C30	186pF	B1	C69	50μF	E3	L13	—	D3
R6	10kΩ	F4	R45	2.2kΩ	D3	C31	30pF	B1	C70	100μF	E3	L14	15Ω	‡
R7	33kΩ	C1	R46	100Ω	D3	C32	560pF	C2	C71	100μF	E3	CH1	—	C1
R8	6.8kΩ	B1	R47	2.2Ω	D3	C33	180pF	C2	C72	500μF	E3	CH2	—	C2
R9	220Ω	C1	R48	2.2Ω	D3	C34	150pF	B1	C73	500μF	B1	Miscellaneous		
R10	1kΩ	B1	VR1	5kΩ	B2	C35	0.1μF	C2	C74	50μF	E3	D1	—	B2
R11	270kΩ	B1	VR2	25kΩ	A1	C36	0.1μF	B2	C75	500μF	E3	D2	—	B2
R12	2.2kΩ	C2	Capacitors			C37	10μF	B2	Coils and Transformers			D3	—	B2
R13	680Ω	B2	C1	35pF	B1	C38	1,500pF	B2	L1	—	F4	D4	—	B2
R14	56kΩ	B2	C2	0.01μF	F4	C39	0.1μF	B2	L2	—	F4	D5	—	B2
R15	3.3kΩ	B2	C3	47pF	F4	C40	300pF	B1	L3	—	F4	S1-S11	—	C2
R16	330Ω	B2	C4	1,000pF	F4	C41	180pF	B1	L4	—	F4	‡ Loudspeaker		
R17	470Ω	B2	C5	20pF	F4	C42	1,000pF	B2	L5	—	F4			
R18	1.5kΩ	B2	C6	—	F4	C43	2μF	B2	L6	—	B1			
R19	3.3kΩ	B2	C7	1,000pF	F4	C44	300pF	B2	L7	—	A1			
R20	10kΩ	B2	C8	1,000pF	F4	C45	180pF	B2						
R21	2.2kΩ	B2	C9	560pF	F4	C46	0.1μF	B2						
R22	220Ω	B2	C10	5.6pF	F4	C47	0.1μF	B2						
R23	470Ω	B2	C11	1,000pF	F4	C48	1,000pF	B2						
R24	47Ω	B2	C12	20pF	F4	C49	0.1μF	B2						
R25	47Ω	B1	C13	—	F4	C50	300pF	B2						
R26	390Ω	B2	C14	8.2pF	F4	C51	250pF	B2						
R27	680Ω	B2	C15	68pF	F4	C52	0.1μF	B2						
R28	82Ω	B2	C16	0.1μF	C1	C53	0.1μF	B1						
R29	6.8kΩ	B1	C17	30pF	B1	C54	50pF	B2						
R30	2.2MΩ	B2	C18	30pF	B1	C55	0.01μF	B2						
R31	6.8kΩ	B2	C19	35pF	B1	C56	1,000pF	B2						
R32	22kΩ	B2	C20	238pF	F4	C57	0.02μF	B2						
R33	1kΩ	B1	C21	1,000pF	F4	C58	10μF	B2						
R34	180kΩ	E3	C22	300pF	F4	C59	1,000pF	B2						
R35	10kΩ	E3	C23	0.01μF	C1	C60	0.22μF	B1						
R36	3.9kΩ	E3	C24	0.02μF	B1	C61	0.1μF	B1						
R37	1kΩ	E3				C62	0.047μF	B2						
R38	56kΩ	E3				C63	1,000pF	B2						

Transistor	Emitter (V)	Base (V)	Collector (V)
TR1 AF180	5.2	4.5	0.1
TR2 AF115	3.0	2.5	—
TR3 AF114	4.5	4.0	0.1
TR4 AF114	6.0	5.5	1.5
TR5 AF114	5.9	5.5	0.5
TR6 OC71	7.3	6.7	0.3
TR7 OC81/D	7.7	7.3	1.2
TR8 OC81	4.6	4.2	0
TR9 OC81	9.0	6.9	4.6

CIRCUIT ALIGNMENT

Equipment Required.—An f.m./a.m. signal generator with the following outputs. 10.7Mc/s, 88Mc/s, 100Mc/s, all with 22kc/s deviation. 150kc/s—2Mc/s amplitude modulated 30 per cent; An a.c. voltmeter, 300mV f.s.d. One 1kΩ resistor.

Because the scale is attached to the case, it is advisable to make a temporary scale, with calibration marks indicated, before attempting r.f. alignment. This calibrator could then be clipped to the card, backing the cursor.

Remove the chassis from the case. Instructions for this will be found under "General Notes".

Set the voltmeter to the 300mV a.c. range and connect it across the loudspeaker coil. Turn the volume control to maximum. To avoid a.g.c. action, the input signal level should be kept as low as possible consistent with a reasonable indication on the output meter.

- 1.—Switch on signal generator and allow 15 minutes to warm up.
- 2.—Turn tuning capacitor to maximum capacitance switch radio to f.m. and connect f.m. signal generator output lead to junction of S4 and C23, the other lead should be connected to chassis on the printed panel.
- 3.—Feed in a 10.7Mc/s (22kc/s deviation) signal. Adjust L9a and b, L11a and b, L12a and b for maximum output. Repeat until no further increase can be obtained.
- 4.—Connect signal generator to aerial input terminals. Increase signal. Adjust L4a and b for maximum output.
- 5.—Switch signal generator to a.m. position, feed in 10.7Mc/s a.m. 30 per cent modulated signal. Adjust VR1 for minimum output.
- 6.—Repeat operations 3, 4 and 5.

Drive cord assembly viewed from above, with tuning gang at maximum capacitance.

7.—Check that the cursor lines up with calibration marks at the low frequency end of tuning scale with tuning gang fully closed.

8.—Tune receiver to 88Mc/s as marked on scale. Switch signal generator to f.m. Feed in an 88Mc/s (22kc/s deviation) signal via aerial socket. Adjust L2 and L3 for maximum output.

9.—Feed in 100Mc/s (22kc/s deviation) signal, tune receiver to 100Mc/s as marked on scale. Adjust C12 and C5 for maximum output. Tune to 95Mc/s as marked on scale. Maintain input at 100Mc/s. Adjust L1 and L5 for maximum output.

10.—Set signal generator to a.m. Switch radio to m.w. disconnect at L6, the lead connecting L6 to S3. Connect signal generator between the free end of lead and chassis. Rotate tuning capacitor to maximum capacitance.

11.—Feed in a 472kc/s signal. Adjust L9c and d, L11c and d, L12d, for maximum output. Repeat as necessary.

12.—Disconnect signal generator and re-connect lead to L6. Connect signal generator output via the 1kΩ resistor to aerial socket, the other lead to chassis.

13.—Tune receiver to 500 metres as marked on scale. Feed in a 600kc/s signal. Adjust L10 for maximum output.

14.—Position L6 on ferrite rod for maximum output.

15.—Tune receiver to 200 metres as marked on scale. Feed in a 1.5Mc/s signal. Adjust C29 and C17 for maximum output.

16.—Repeat operations 13-15 until no further improvement is effected.

17.—Switch receiver to l.w. Tune to 1,765 metres as marked on scale. Feed in a 170kc/s signal. Adjust position of L8 on ferrite rod, and C31 for maximum output.

18.—Tune receiver to 1,250 metres as marked on scale. Feed in a 240kc/s signal. Adjust C18 for maximum output.

19.—Repeat operations 17 and 18 until no further improvement is effected.

