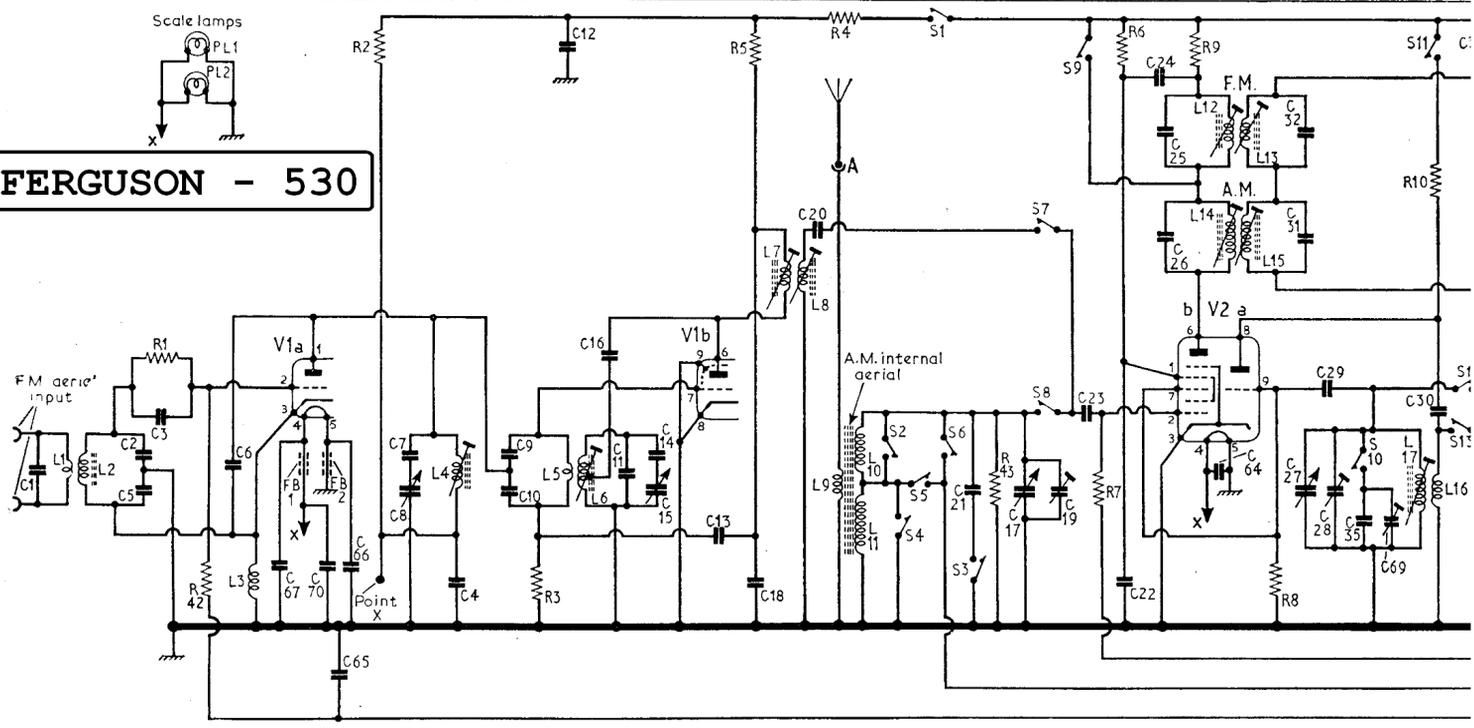
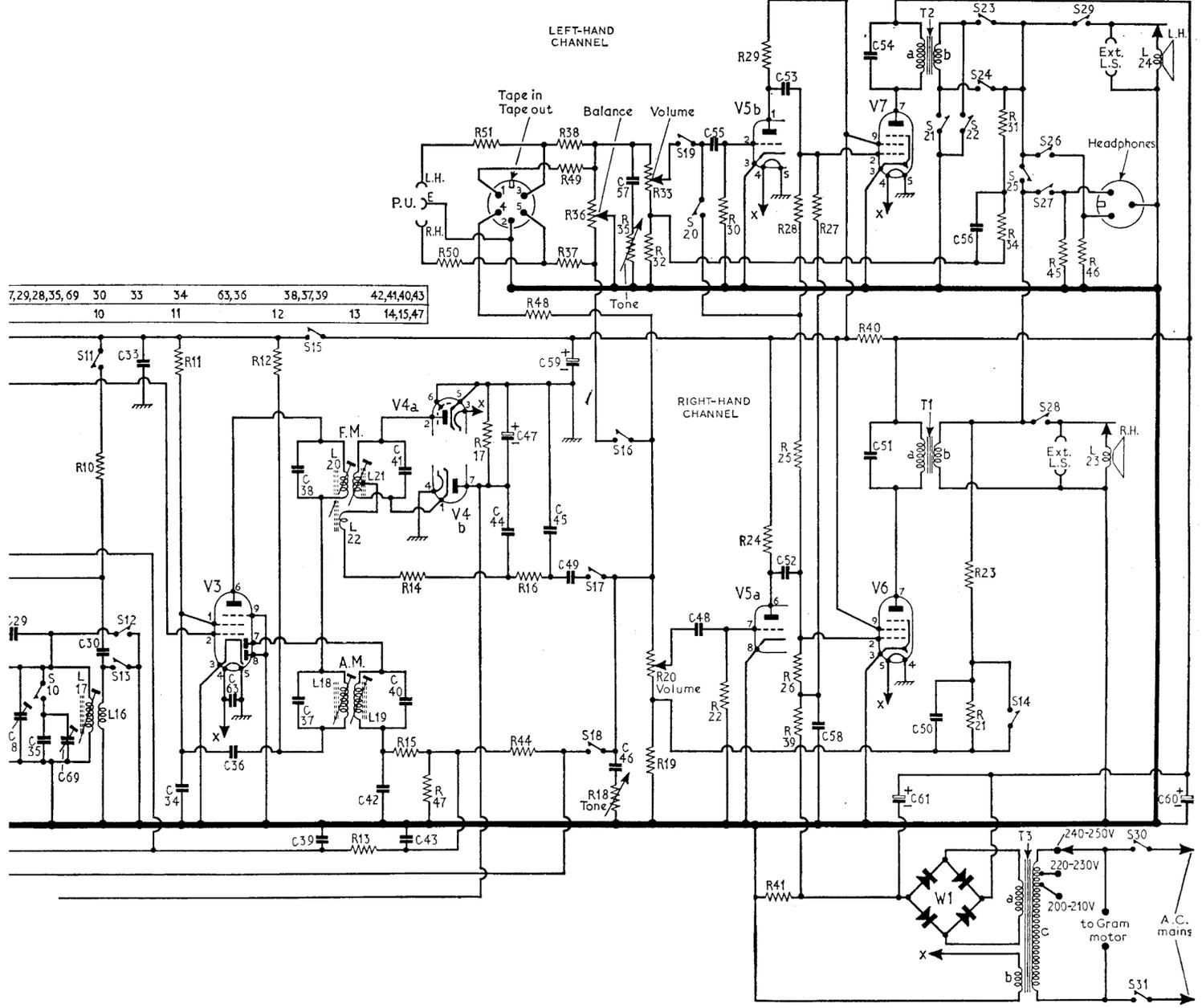


C	1	2,5,3	6	67	70,65,66	7,8	4	9,10	12	16,11,14,15	13	18	20	21	17	19	23	22	24,25,26,64	32,31,27,29,28,35,69	30	
R	1	42	2	3	5	4	3	4	43	7	6	9	8	10								

FERGUSON - 530



	47,44	45,49,59	46	57	48	55	52,53	58	54,51,61	50	56	60
50	17,51	44,16,48,38,49,37,36,18,35,33,32,19,20,30,22	29,24	41,28,25,26,59,27,40	23,21	31,34	45	46				



7,29,28,35,69	30	33	34	63,36	38,37,39	42,41,40,43
	10	11	12	13	14,15,47	

Resistors		Capacitors		Coils*		Transformers*	
R1	680kΩ	C1	47pF	L1	1.1μF	T1	{ a 300
R2	2.2kΩ	C2	15pF	L2	—	T2	{ b —
R3	680kΩ	C3	220pF	L3	—	T3	{ a 300
R4	1.5kΩ	C4	1.500pF	L4	—		{ b —
R5	6.8kΩ	C5	47pF	L5	—		{ c 100
R6	33kΩ	C6	7pF	L6	—		{ — 34
R7	2.2MΩ	C7	47pF	L7	—		
R8	47kΩ	C8	—	L8	—		
R9	2.7kΩ	C9	5pF	L9	—		
R10	27kΩ	C10	5pF	L10	—		
R11	47kΩ	C11	11.5pF	L11	5.75		
R12	3.3kΩ	C12	0.01μF	L12	—		
R13	2.2MΩ	C13	12pF	L13	—		
R14	220Ω	C14	50pF	L14	6.5		
R15	100kΩ	C15	—	L15	6.5		
R16	100kΩ	C16	18.5pF	L16	—		
R17	27kΩ	C17	—	L17	3.5		
R18	1MΩ	C18	100pF	L18	6.5		
R19	47Ω	C19	40pF	L19	6.5		
R20	1MΩ	C20	100pF	L20	—		
R21	1.5kΩ	C21	140pF	L21	—		
R22	6.8MΩ	C22	3,900pF	L22	—		
R23	630Ω	C23	220pF	L23	—		
R24	220kΩ	C24	5,000pF	L24	3.0		
R25	1MΩ	C25	12pF		3.0		
R26	680kΩ	C26	220pF		—		
R27	680kΩ	C27	40pF		—		
R28	1MΩ	C28	220pF		—		
R29	220kΩ	C29	220pF		—		
		C30	220pF		—		
		C31	220pF		—		
		C32	12pF		—		
		C33	0.02μF		—		
		C34	3,900pF		—		
		C35	315pF		—		
		C36	0.01μF		—		
		C37	47pF		—		
		C38	—		—		
		C39	5pF		—		
		C40	5pF		—		
		C41	11.5pF		—		
		C42	0.01μF		—		
		C43	12pF		—		
		C44	50pF		—		
		C45	—		—		
		C46	18.5pF		—		
		C47	—		—		
		C48	100pF		—		
		C49	40pF		—		
		C50	100pF		—		
		C51	140pF		—		
		C52	3,900pF		—		
		C53	220pF		—		
		C54	5,000pF		—		
		C55	12pF		—		
		C56	220pF		—		
		C57	40pF		—		
		C58	220pF		—		
		C59	220pF		—		
		C60	220pF		—		
		C61	220pF		—		
		C62	12pF		—		
		C63	0.02μF		—		
		C64	3,900pF		—		
		C65	315pF		—		
		C66	0.01μF		—		
		C67	1,000pF		—		
		C68	—		—		
		C69	30pF		—		
		C70	0.01μF		—		

Transformers*

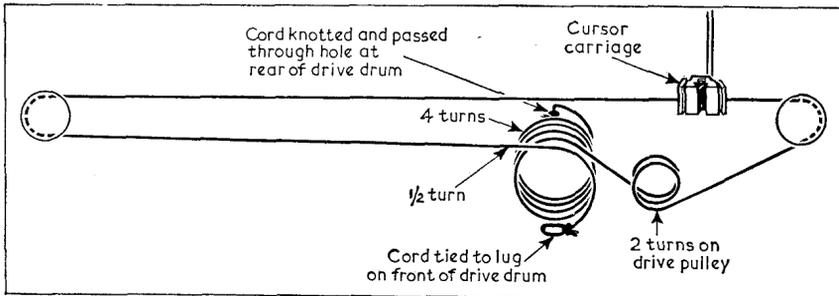
T1	{ a 300
	{ b —
T2	{ a 300
	{ b —
	{ c 100
T3	{ a 300
	{ b —
	{ c 34

Miscellaneous

PL1, PL2, 6.5V 0.3A	
W1	—
FB1	—
FB2	—
S1-S25	—
S26-S29	—
S30, S31	—

* Approximate d.c. res.
† No component.

Valve	Anode (V)	Screen (V)	Cathode (V)
V1 ECC85	198V at junction R2, R5	—	—
V2 ECH81	{ fa 200	{ fb 75	—
V3 EBF89	185	79	—
V4 EB91	—	—	—
V5 ECC83	{ fa 100	{ fb 100	—
V6 EL84	255	212	—
V7 EL84	255	212	—



Scale drive assembly seen from the front with the tuning gang fully closed. Approximately 4½ feet of cord is required for a replacement drive.

CIRCUIT ALIGNMENT

Equipment Required.—An a.m. signal generator modulated 30%; an output meter; an r.f. coupling loop for alignment of the a.m. aerial circuits; an f.m. signal generator with 25kc/s deviation at an output impedance of 75Ω and also capable of supplying a 30% modulated signal at 10.7Mc/s; two capacitors (0.01μF and 400pF) and a hexagonal trimming tool for the i.f. coil cores, specially shaped to allow the bottom core to be adjusted through the top core in the case of formers which contain two cores.

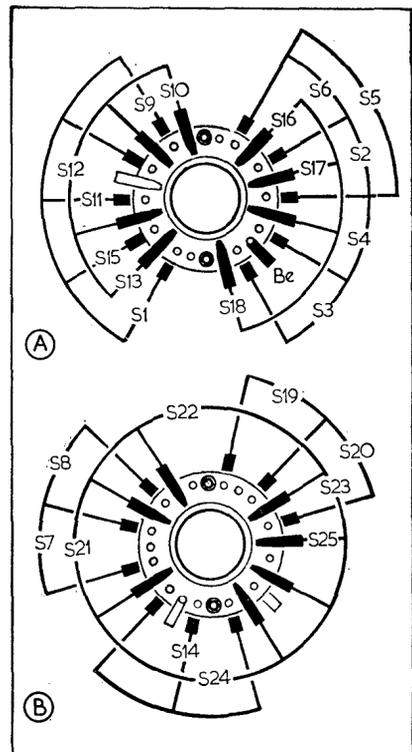
A.M. Circuits

- 1.—Switch receiver to m.w., turn the tuning gang to the minimum capacitance position and the volume control to maximum output. Connect the output meter across the loudspeaker terminals and connect the a.m. signal generator via the 0.01μF capacitor to the control grid of V2 mixer section.
- 2.—Feed in a 470kc/s modulated signal and adjust L19, L18, L15 and L14 (location reference C2) for maximum output.
- 3.—Disconnect the signal generator from V2b grid and connect its output across the r.f. coupling loop, with the loop loosely coupled to the ferrite rod aerial. With the tuning gang at maximum capacitance check that the cursor coincides with the “zero” mark on the edge of the scale diffuser.
- 4.—Tune receiver to 517m (if out of the cabinet, tune to the 517m calibration mark on the edge of the scale diffuser). Feed in a 580kc/s signal and adjust L17 (B1) and L10 (B3) for maximum output. Adjust L10 by sliding the tuning ring along the ferrite rod.
- 5.—Tune receiver to 205m (mark on scale diffuser), feed in a 1,460kc/s signal and adjust C28 (B2) and C19 (B2) for maximum output.
- 6.—Switch receiver to l.w. and feed in a 220kc/s signal. Tune receiver to this signal, then adjust C69 (C1) and L11 (A3) for correct calibration and maximum output.

F.M. Circuits

Throughout the alignment of the f.m. circuits the input signal should be adjusted to maintain an audio output of approximately 100mW.

- 1.—Switch receiver to f.m. and allow a ten-minute warm-up period. Set the volume control 90 deg. back from maximum output and set the tone control to maximum treble. Connect the signal generator via the 400pF capacitor to the mixer control grid of V2.
- 2.—Feed in a 10.7Mc/s f.m. signal and adjust L20, L21, L13 and L12 (location reference C2) for max. output.
- 3.—Switch the signal generator to a.m., Feed in a 10.7Mc/s modulated signal and adjust L21 for *minimum* output. Then feed in a 10.7Mc/s f.m. signal and check that the f.m. output has not reduced. If maximum a.m. rejection does not coincide with maximum f.m. output, adjust L21 for maximum a.m. rejection at the expense of output.
- 4.—Unscrew the core of L8 (A2) until it protrudes from the former by approximately ¼ in. Connect the signal generator to point X (A2).
- 5.—Feed in a 10.7Mc/s f.m. signal and adjust L7 (A2) for maximum output, then peak L8.
- 6.—Fully close the tuning gang and check that the cursor coincides with the “zero” mark on the edge of the scale diffuser, then tune to 91Mc/s on scale.
- 7.—Connect the signal generator to the f.m. aerial sockets. Feed in a 91Mc/s signal and adjust L6 (A2) to tune receiver to this signal. If two peaks occur, select the one with the *core* nearer the top of the former.
- 8.—Adjust L4 for maximum audio output with the core towards the bottom of the former.



Waveband switch wafers drawn as they appear when looking at the chassis from the rear; section A being the front (or inner) wafer.