STATION, RADIO, C42, NO 1

TECHNICAL HANDBOOK - FAULT FINDING AND REPAIR DATA

Errata

Note: These Pages 0-01, Issue 2, supersede Pages 0-01, Issue 1, dated 10 Apr 63 and will be filed immediately in front of Page 02, Issue 1, dated 27 Nov 64. Items 3 and 4 have been amended.

1. The following amendments will be made to the regulation.

2. Page 1004, Fig 2502, circuit reference V9, location F5, Receiver 1st I.F. heater circuit,

   Delete: '5'
   Insert: '3'

3. Pages 1005-1006, 1009-1010.

   Remove and destroy existing pages, replace with new pages (Issue 4)

4. Pages 1007-1008, 1035-1036, 1037-1038, 1039-1040.

   Remove and destroy existing pages, replace with new pages (Issue 3)

5. Page 1012, Fig 2510,

   (a) location E8,

   Delete: 'RLA'
   Insert: 'RLB'

   (b) location F8,

   Delete: 'RLB'
   Insert: 'RLA'

6. Page 1040, Fig 2525,

   (a) Valve base V18, numbering of pins in clockwise direction,

   Delete: '1 3 2 4 5'
   Insert: '1 2 3 4 5'

   (b) Valve base V19, numbering of pins in clockwise direction,

   Delete: '1 3 2 4 5'
   Insert: '1 2 3 4 5'

7. Page 1041, Table 2512, Terminal No 27,

(a) Voltage receive column,

Delete: '13'
Insert: '26'

(b) Voltage send L.P. column,

Delete: '13'
Insert: '26'

(c) Voltage send H.P. column,

Delete: '13'
Insert: '26'

(d) Remarks column,

Insert: 'D.C. RV4 fully clockwise'

8. Page 1042, Table 2513, Terminal No P7,

(a) Receive voltage column,

Delete: '13'
Insert: '26'

(b) Send L.P. voltage column,

Delete: '13'
Insert: '26'

(c) Send H.P. voltage column,

Delete: '13'
Insert: '26'

(d) Remarks column,

Delete: '(4V on 1060)'
Insert: '(RV4 fully clockwise)'

EME8/1046

STATION, RADIO, C42, NO 1

TECHNICAL HANDBOOK - FAULT FINDING AND REPAIR D[illegible]

Errata

Note: These Pages 02-05, Issue 1, will be filed immediately in front of Page 1001, Issue 2 dated 9 Mar 62.

The following amendments will be made to the regulation (Ref items 9-20: The miniature diode valve CV469 has been fitted and issued as replacements for use in the TRC42 since its inception. The EMER and parts list however, quote the ruggedized version of the valve CV4504 which was intended to be a replacement but was never authorized for issue. Valve CV469 will continue to be issued).

9. Page 1007, Fig 2505

(a) Circuit location W3-4, V18 and V19

Delete: 'CV4504'
Insert: 'CV469'

(b) Circuit location U7, V23

Delete: 'CV4504'
Insert: 'CV469'

10. Page 1009, Fig 2507

(a) Circuit location G7-8, V11 and V12

Delete: 'CV4504'
Insert: 'CV469'

(b) Circuit location C8, V29

Delete: 'CV4504'
Insert: 'CV469'

11. Page 1016, Fig 2511

Circuit location C6, V11 and V12

Delete: 'CV4504'
Insert: 'CV469'

12. Page 1019, Table 2502, MISCELLANEOUS section

(a) Column 5, line 4 and 5

Delete: 'CV4504'
Insert: 'CV469'

(b) Column 6, line 4 and 5

Delete: '5960-99-000-4504'
Insert: '5960-99-000-0469'

13. Page 1020, Fig 2513

Circuit location G2-3, V18 and V19

Delete: 'CV4504'
Insert: 'CV469

14. Page 1023, Table 2503, MISCELLANEOUS section

(a) Column 5, line 5 and 6

Delete: 'CV4504'
Insert: 'CV469'

(b) Column 6, line 5 and 6

Delete: '5960-99-000-4504'
Insert: '5960-99-000-0469'

15. Page 1028, Fig 2518

Circuit location D3, V23

Delete: 'CV4504'
Insert: 'CV469'

16. Page 1029, Table 2506, MISCELLANEOUS section

(a) Column 5, line 2

Delete: 'CV4504'
Insert: 'CV469'

(b) Column 6, line 2

Delete: '5960-99-000-4504'
Insert: '5960-99-000-0469'

17. Page 1030, Fig 2519

Circuit location F2, V29

Delete: 'CV4504'
Insert: 'CV469'

18. Page 1031, Table 2507, MISCELLANEOUS section

(a) Column 5, line 3

Delete: 'CV4504'
Insert: 'CV469'

(b) Column 6, line 3

Delete: '5960-99-000-4504'
Insert: '5960-99-000-0469'

19. Page 1040, Fig 2525, Centre of page (diode valve symbol)

Delete: 'CV4504'
Insert: 'CV469'

20. Page 1043, Table 2514, Column 1 (Inter-service type)

Delete: 'CV4504'

T/8c/2146

STATION, RADIO, C42, NO 1

TECHNICAL HANDBOOK - FAULT-FINDING AND REPAIR DATA

This Part 2 contains fault-finding and repair data in tabular and diagrammatic form. Part 1 of this EMER contains a general description of the equipment. Tels H 443 and H 444 deal with repairs.

Note: This Issue 2, Pages 1001-1050, supersedes Page 0, Issue 1, dated 1 Feb 56, Pages 1001-1035 and 1038-1043, Issue 1, dated 1 Jul 55 and Pages 1036-1037, Issue 2, dated 1 Feb 57. The regulation has been revised throughout.

General notes on component schedules in this regulation

1. Grid references in some cases are given in the form figure-letter-figure. The prefix figure refers to the drawing and the suffix letter and figures denote the actual grid reference, eg 10B5 means that a component is located at B5 on figure 2510.

2. All catalogue numbers given are in VAOS section Z1 unless another prefix is quoted.

3. The following abbreviations have been used in the 'Type' column:-

p.m.t.	=	paper metal tubular
comp	=	composition
w.w.	=	wire wound
N030, P100 etc	=	Temperature compensated capacitors (see Tels H 442 Part 1, para 78).

INDEX TO TABLES

INDEX TO FIGURES

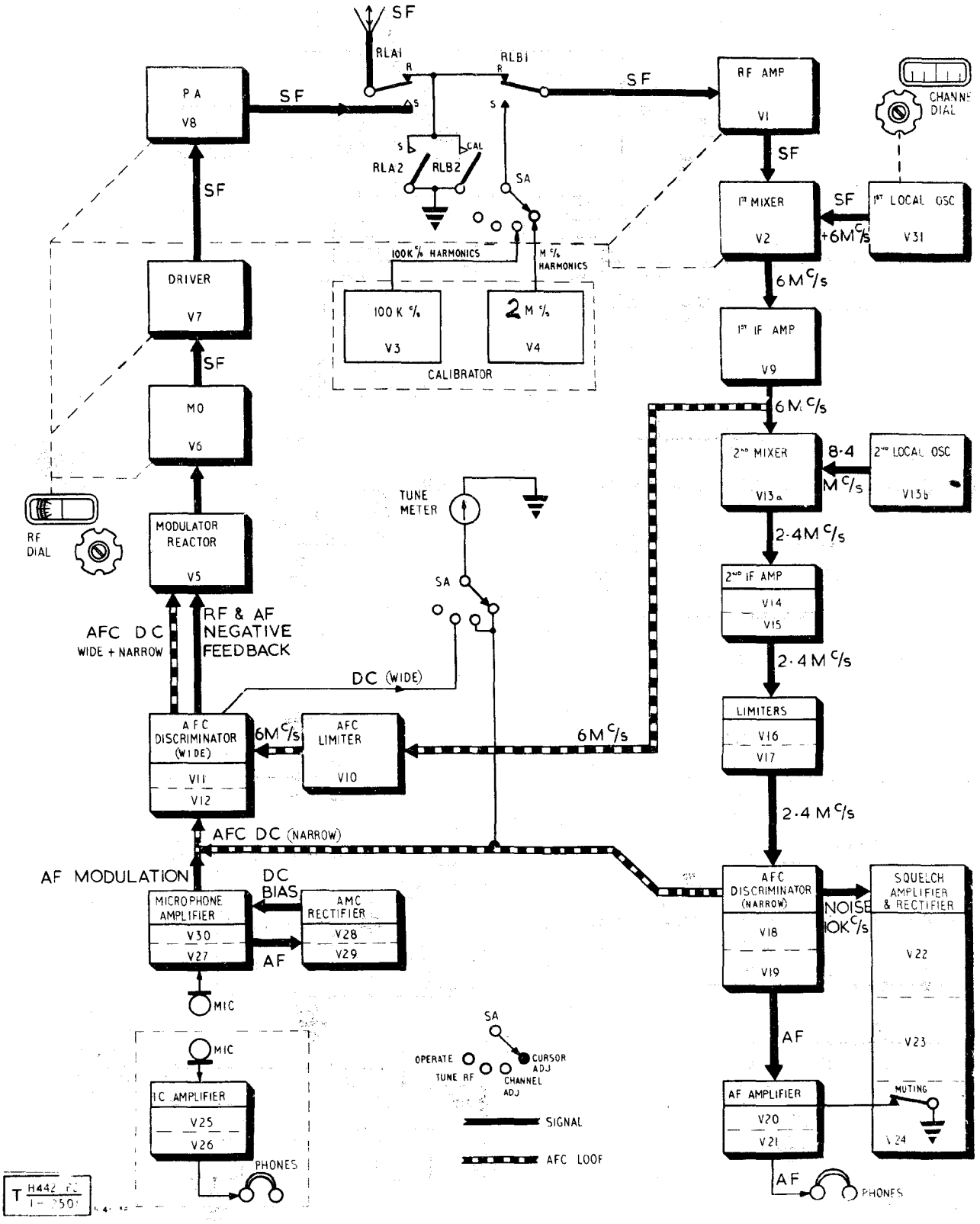


Fig 2501 - Block diagram

Additional copies of the figures for use as bench copies are available on supplementary demand

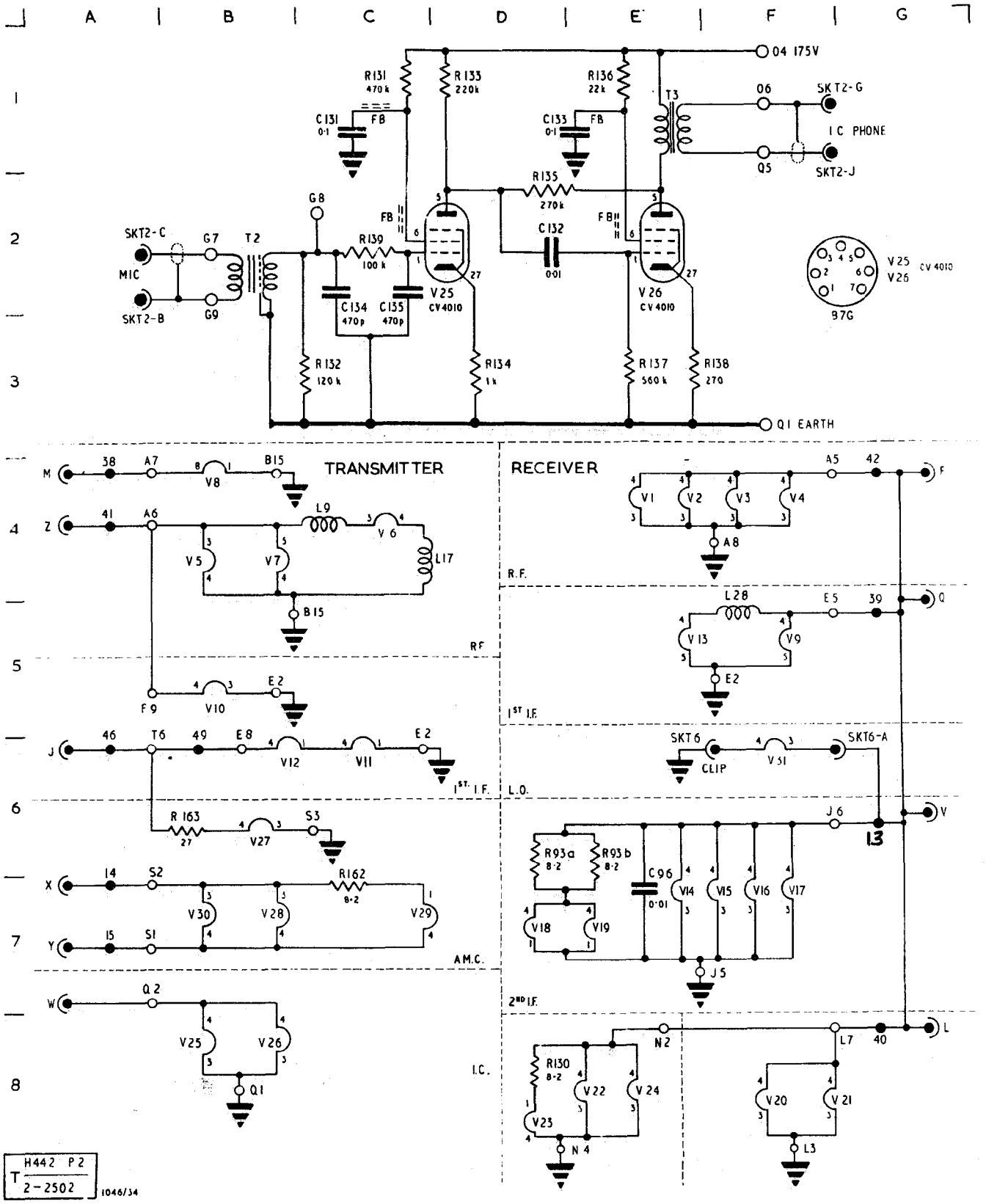
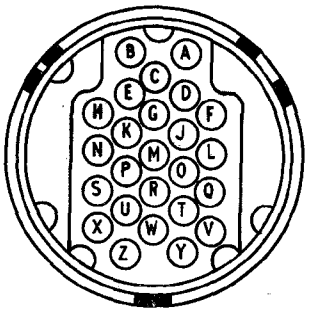


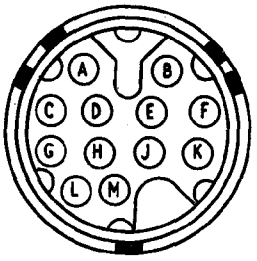
Fig 2502 - Intercom unit and all heaters, circuit diagram

Additional copies of the figures for use as bench copies are available on supplementary demand

Note: These Pages 1005 and 1006, Issue 4, supersede Pages 1005 and 1006, Issue 3, dated 10 Apr 63. Fig 2504 has been amended.



PL1



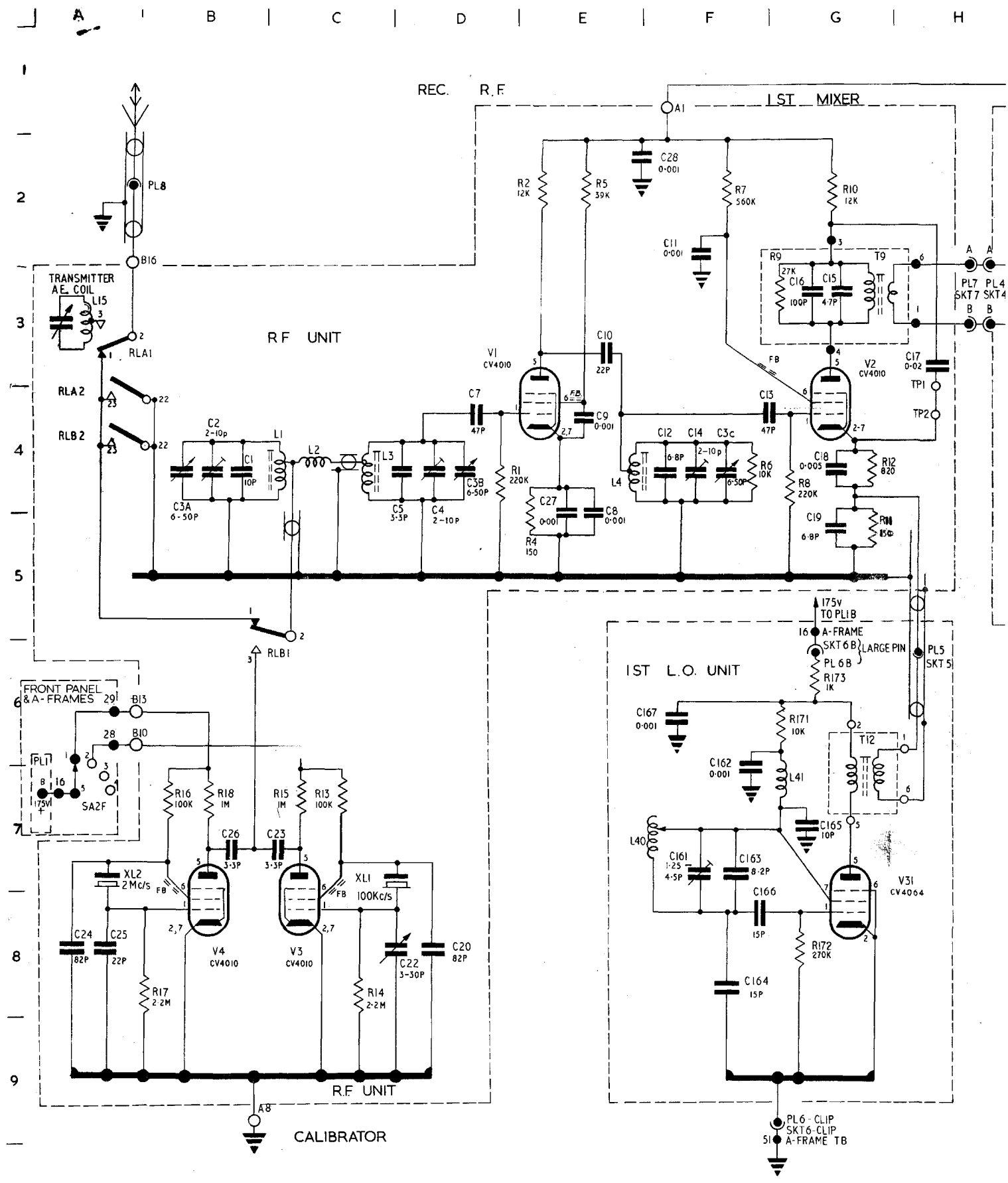
SKT 2

T H442 P2 4—2503 2523/1

Pin of PL1	Function
A	+350V
B	+175V
C	V.C.R.
D	+24V (relays)
E	S/R p.s.u. switching
F	6.3V a.c. receiver heaters
G	Battery
H	Earth
J	12.5V d.c.
K	
L	6.3V a.c. receiver heaters
M	12V a.c. p.a. heater
N	Earth
O	
P	
Q	6.3V a.c. receiver heaters
R	12V d.c. lamps
S	Earth
T	
U	
V	6.3V a.c. receiver heaters
W	6.3V a.c. receiver heaters
X	6.3V a.c.) a.m.c. heaters
Y	6.3V a.c.)
Z	6.3V transmitter heaters

Pin of SKT2	Function
A	Microphone input, set
B	Microphone input, common
C	Microphone input, intercomm
D	S/R pressel
E	Rebroadcast
F	Battery
G	Phones, common
H	Limiter grid current
J	Phones, intercomm output
K	V.C.R.
L	+175V (homing)
M	Phones, set output

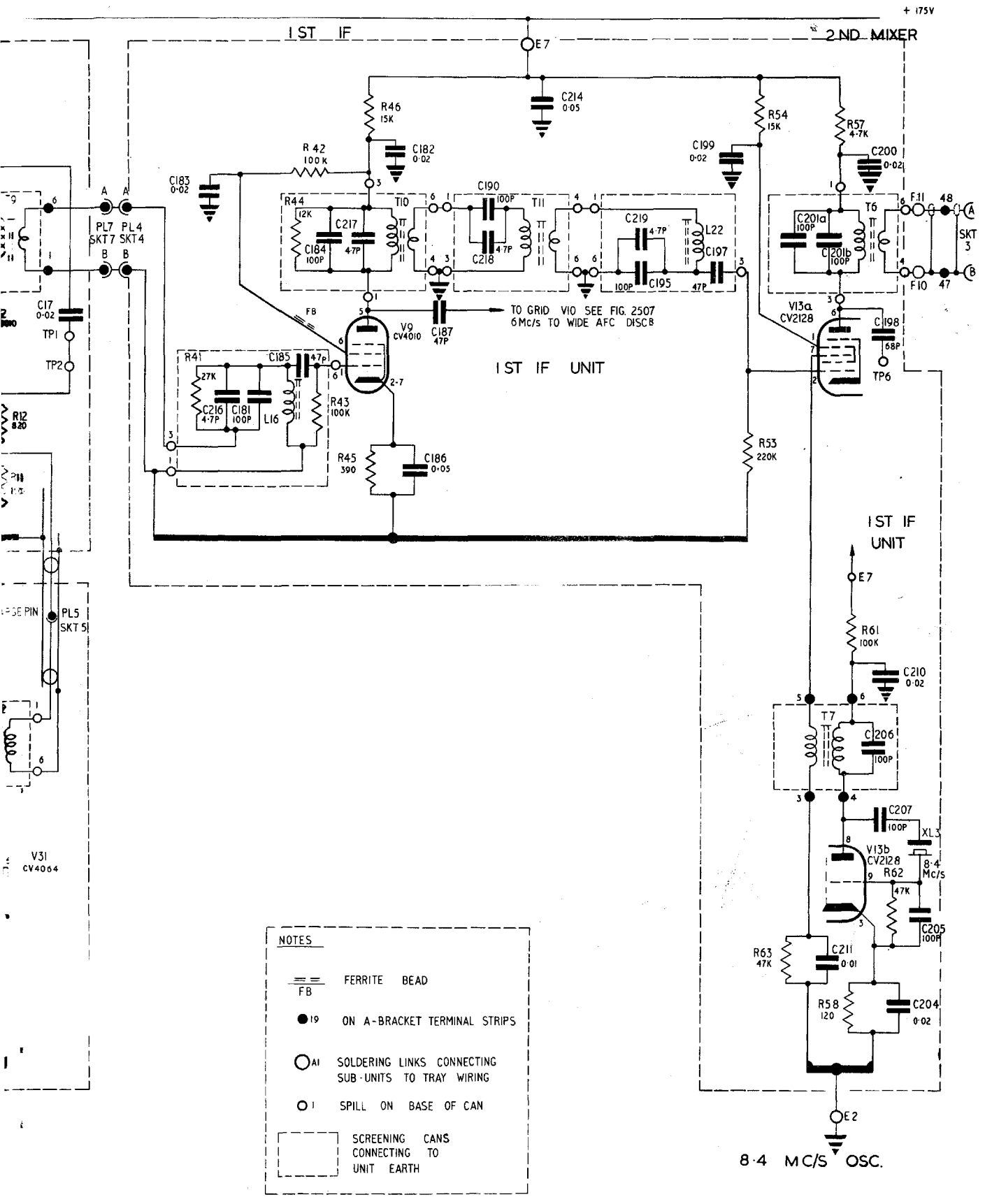
Fig 2503 - Layout and connections for PL1 and SKT2



T H442 P2 / A-2504 1046/4

Fig 2504 - Receiver r.f. and 1st i

Additional copies of the figures for use as bench copies



.f. and 1st i.f., circuit diagram

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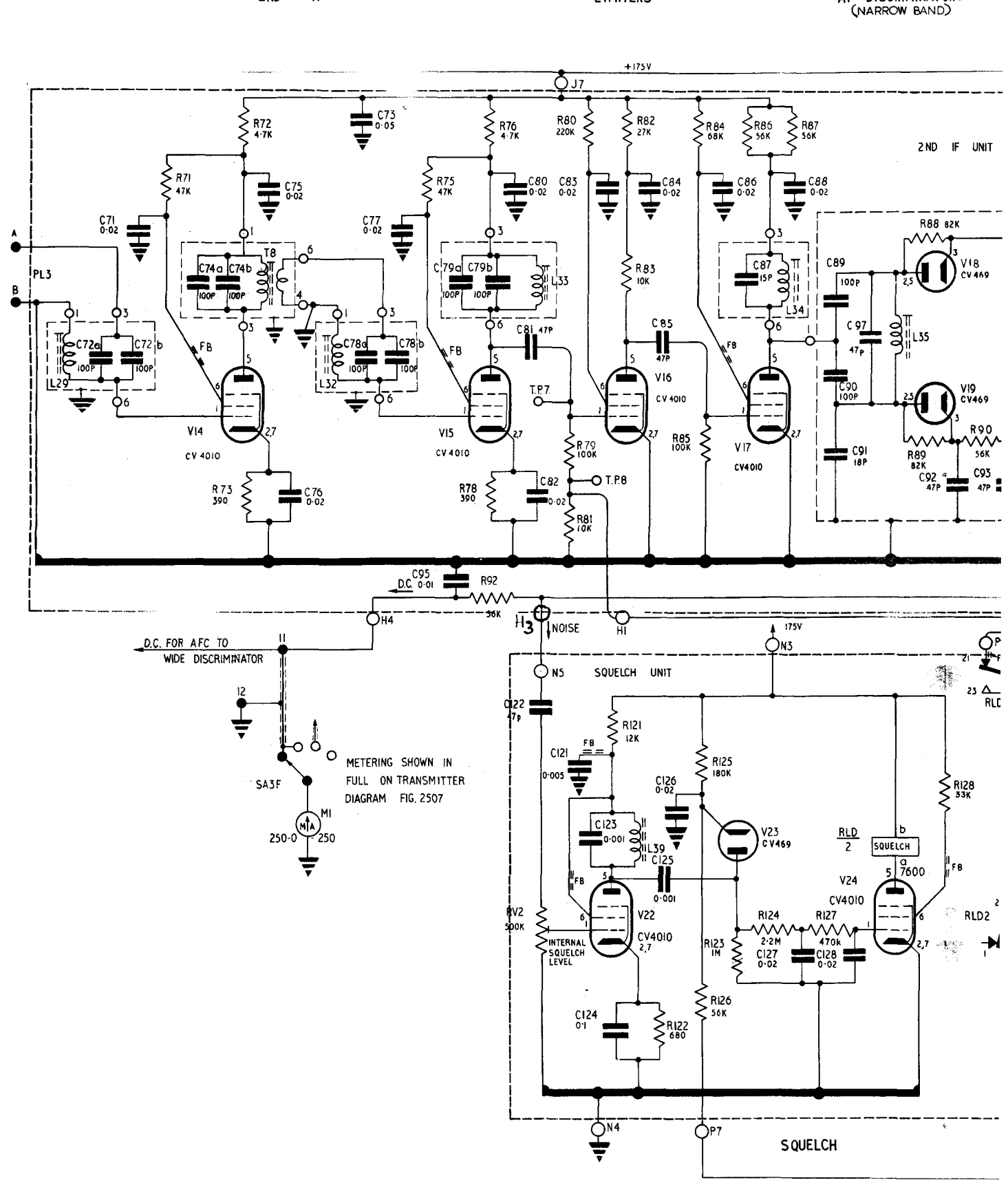
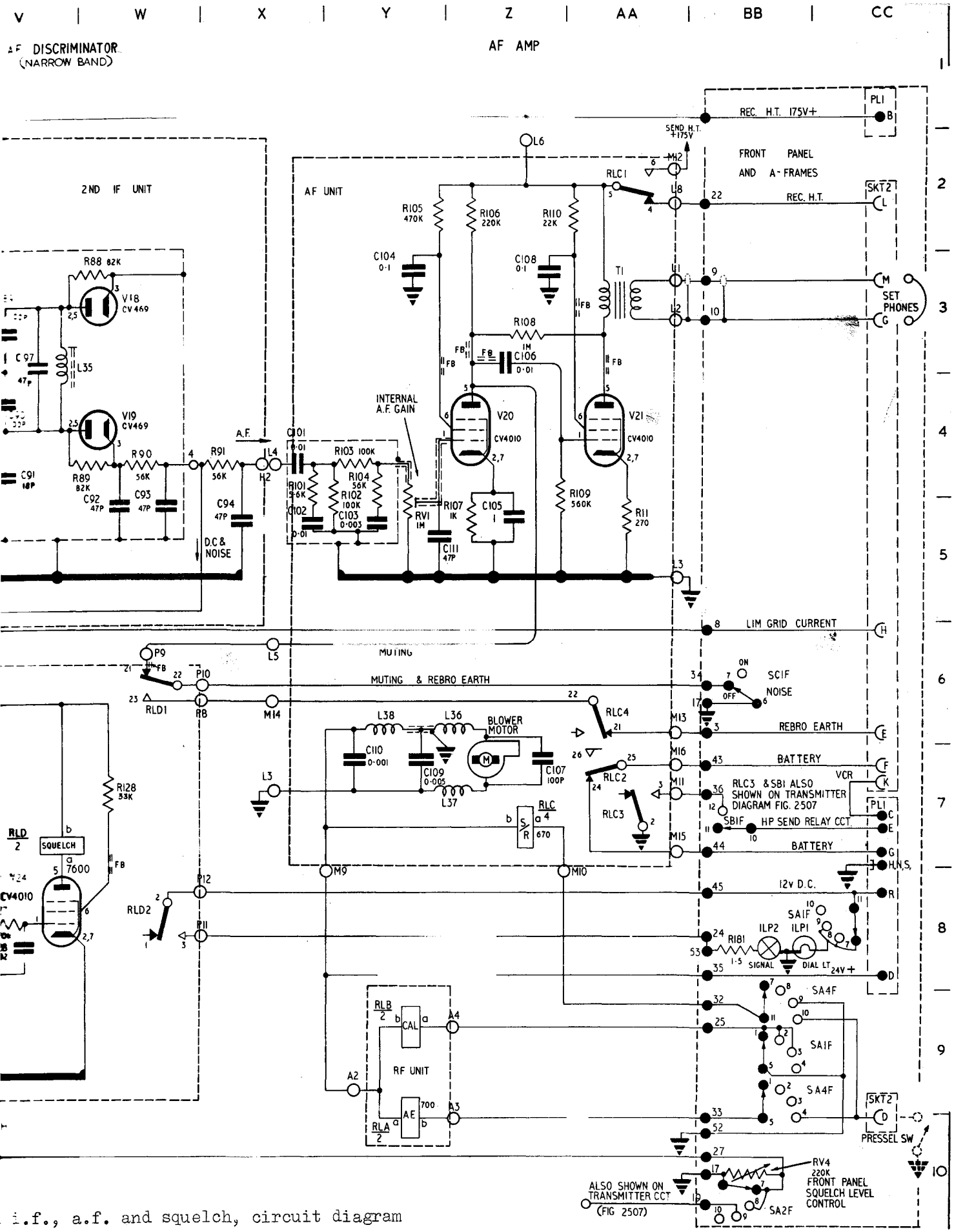


T H442 P2 3-2505 1046/5

Issue 3, 29 May 65

Fig 2505 - Receiver 2nd i.f., a.f. and

Additional copies of the figures for use as bencl



i.f., a.f. and squelch, circuit diagram

Note: These Pages 1007 and 1008, Issue 3, supersede Pages 1007 and 1008, Issue 2, dated 9 Mar 62. Fig 2505 has been amended.

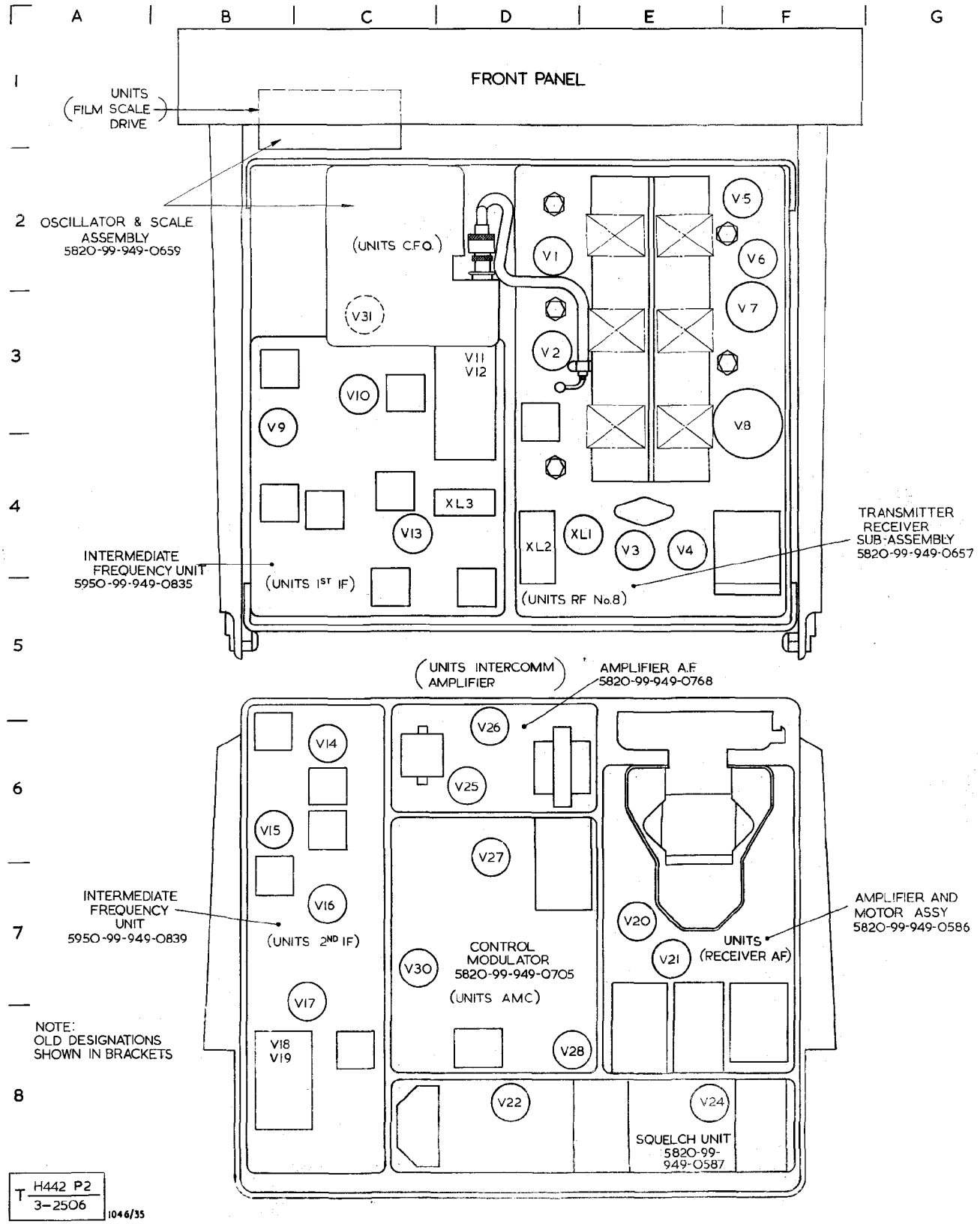
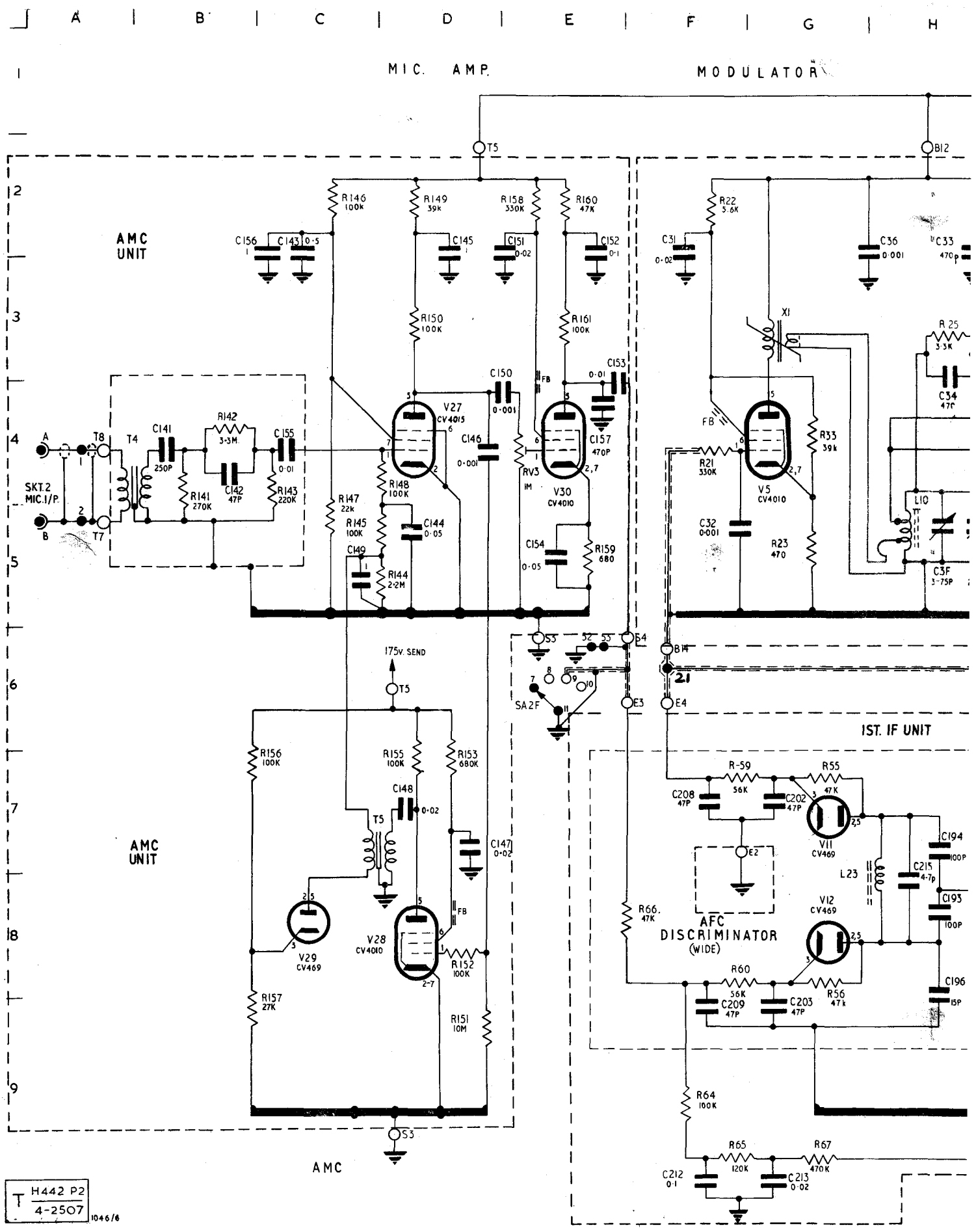


Fig 2506 - Layout of sub-units on chassis



T H442 P2 4-2507 1046/6

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Fig 2507 - Transmitter, c

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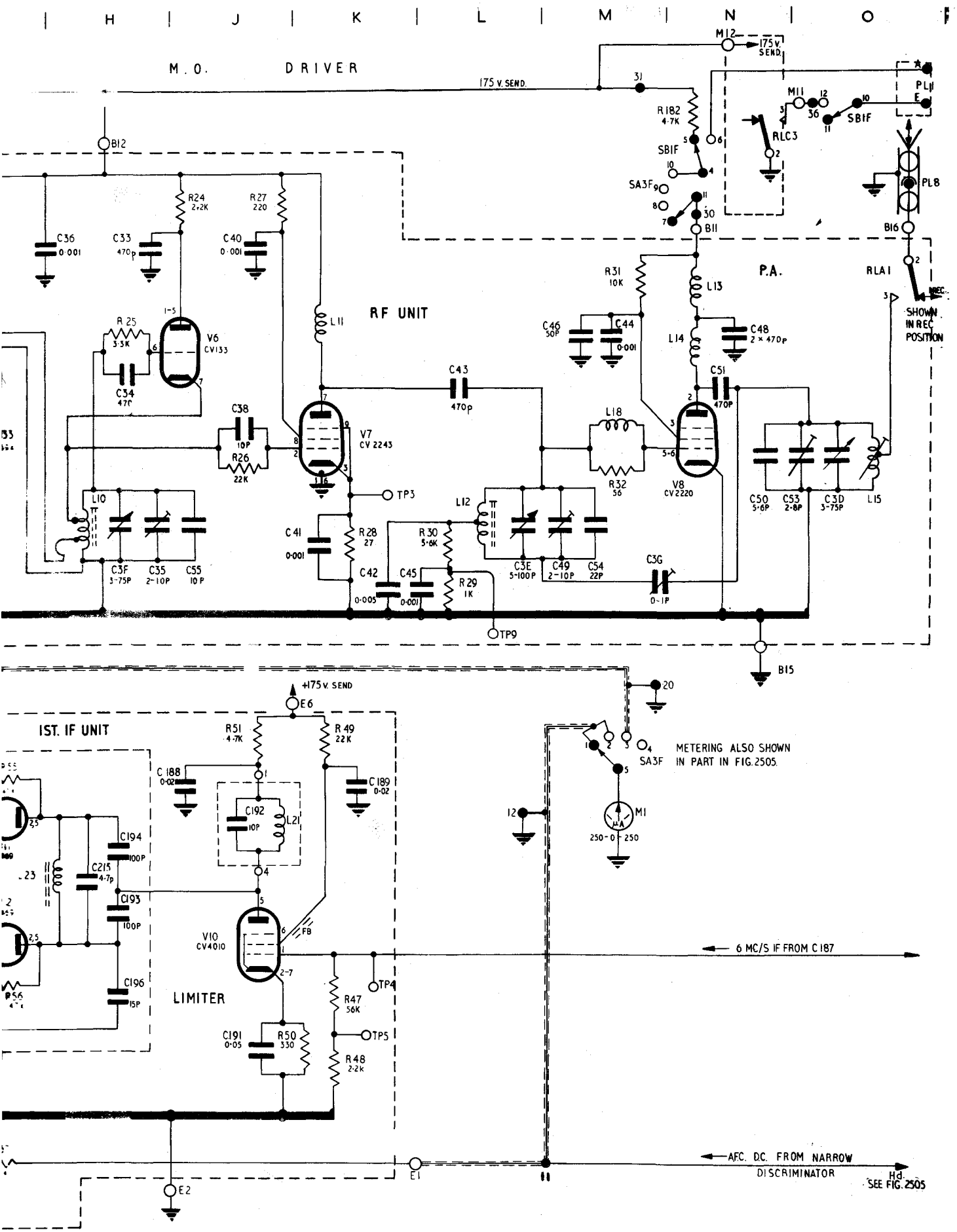

Transmitter, circuit diagram

use as bench copies are available on supplementary demand

Note: These Pages 1009 and 1010, Issue 4, supersede Pages 1009 and 1010, Issue 3, dated 10 Apr 63. Fig 2507 and 2508 have been amended.

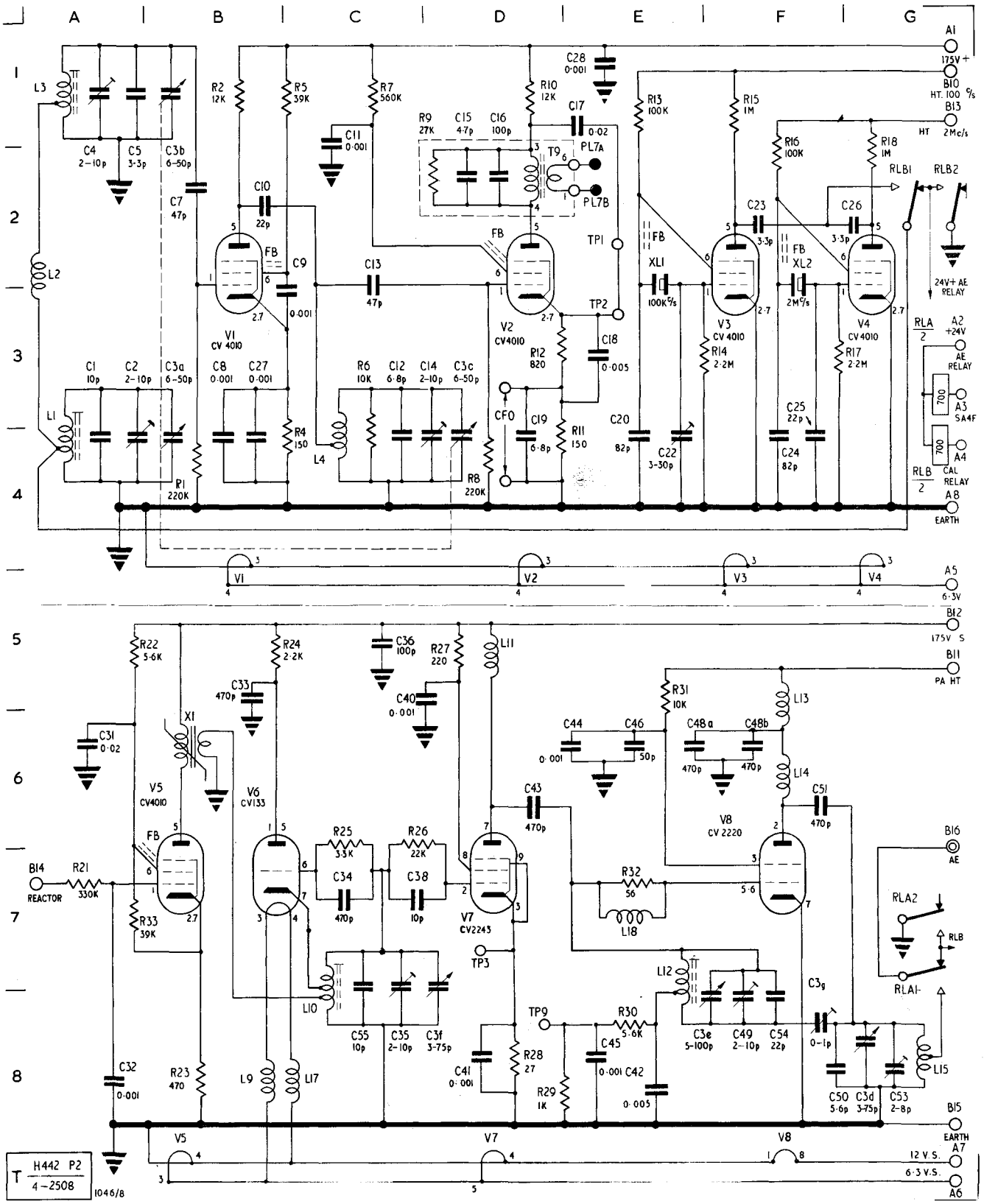

Fig 2508 - Transmitter-receiver sub-assembly, circuit diagram

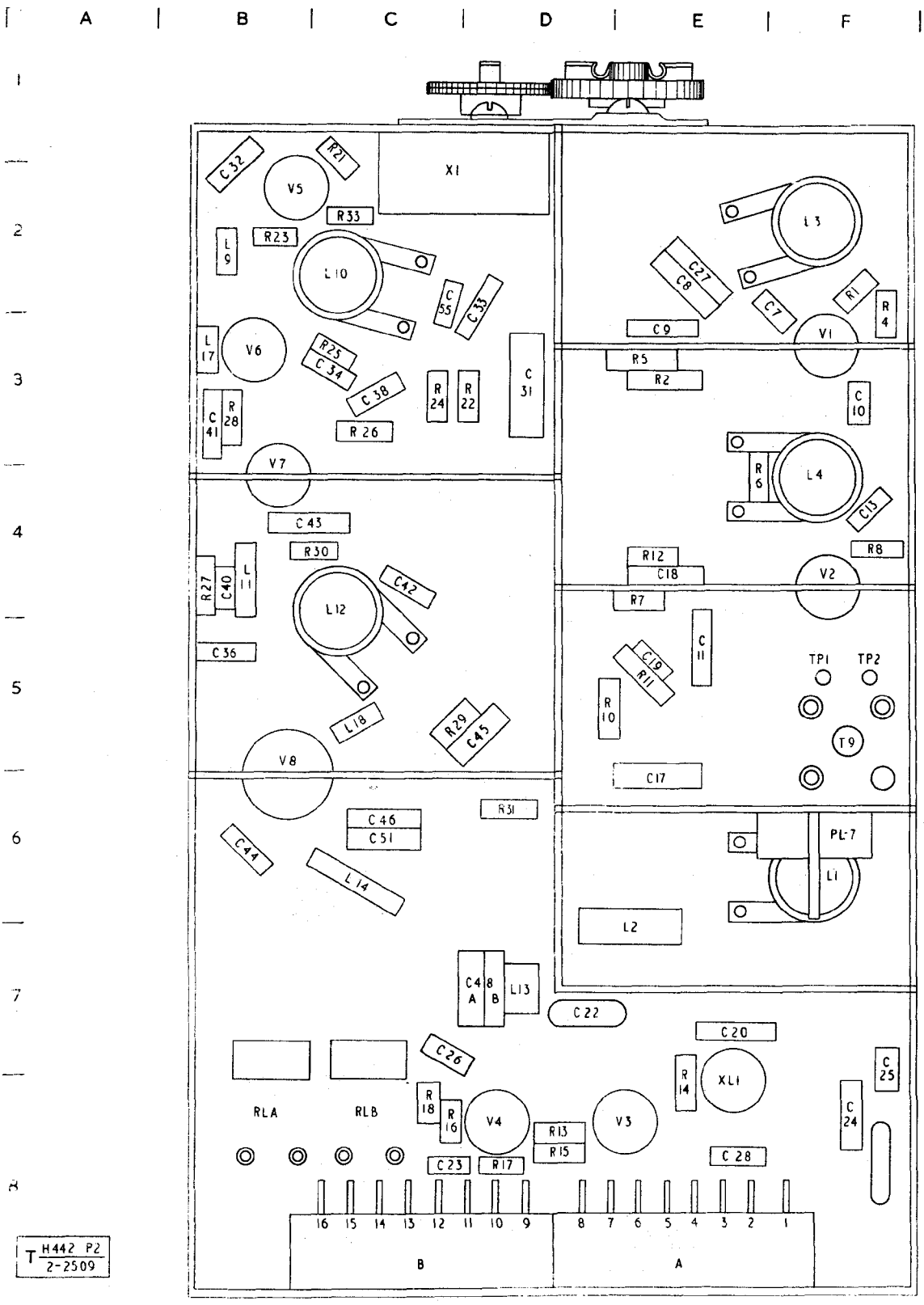

Fig 2509 - Transmitter-receiver sub-assembly, layout below chassis

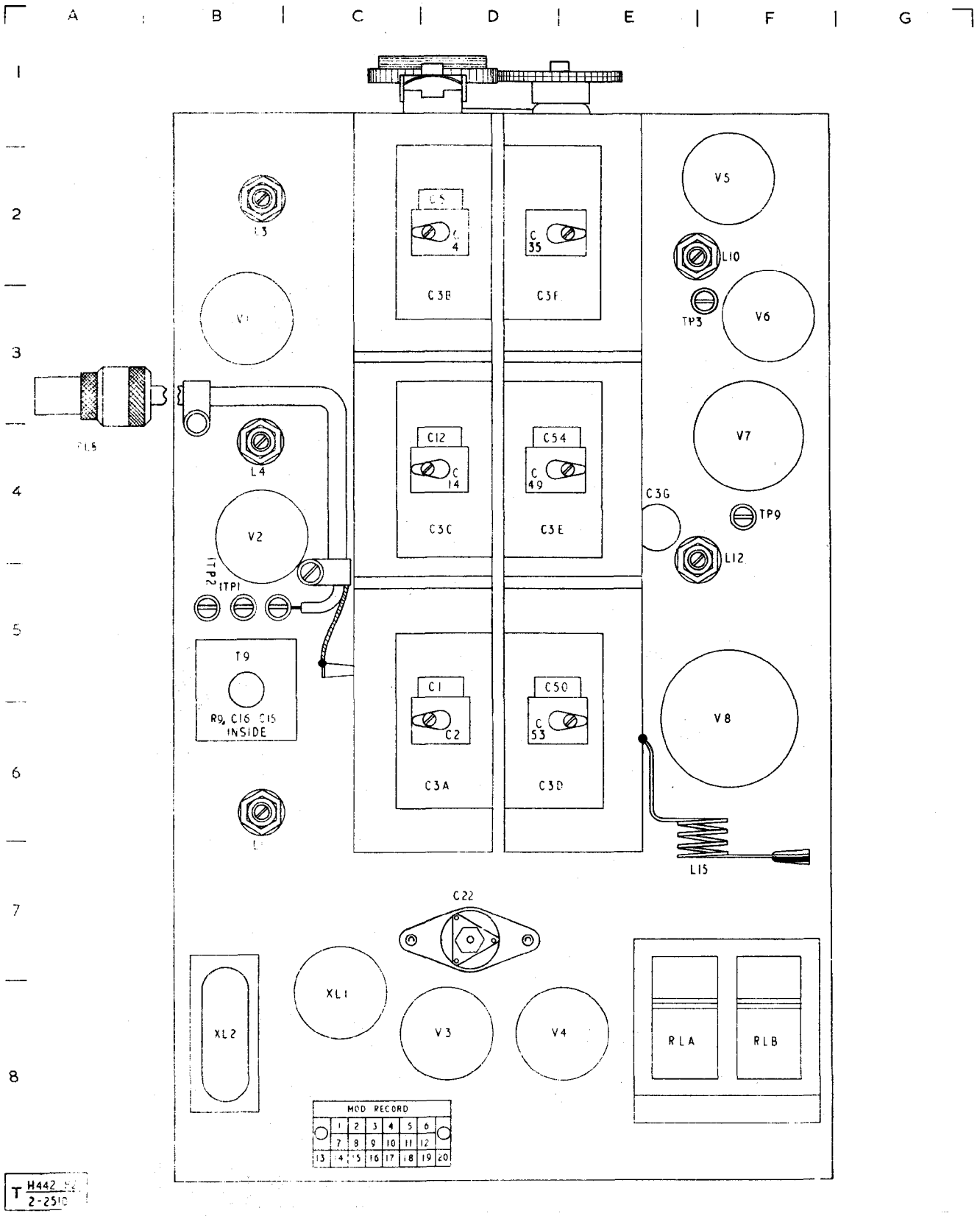

Fig 2510 - Transmitter-receiver sub-assembly, layout above chassis

Table 2501 - Transmitter-receiver sub-assembly (5820-99-949-0657) - component schedule

Cct ref	Component location: Main cct	Fig. 2508	Unit layout	Value	Rating	Type and limit		Part No
				RESISTORS				
R1	4E4	B4	9F2	220k	1/4W	comp	±10%	5905-99-022-3080
R2	4E2	B1	9E3	12k	3W	w.w.	±5%	5905-99-011-3346
R4	4E5	C4	9F2	150	1/4W	comp	±10%	5905-99-022-1131
R5	4E2	C1	9E3	39k	1/4W	comp	±10%	5905-99-022-2206
R6	4F4	C3	9E3	10k	1/4W	comp	±10%	5905-99-022-2131
R7	4F2	C1	9E4	560k	1/4W	comp	±10%	5905-99-022-3134
R8	4G4	D4	9F4	220k	1/4W	comp	±10%	5905-99-022-3080
R9	4G3	D1	10B5	27k	1/4W	comp	±10%	5905-99-022-2185
R10	4G2	D1	9E5	12k	1/4W	comp	±10%	5905-99-022-2143
R11	4G5	E4	9E5	150	1/4W	comp	±10%	5905-99-022-1131
R12	4G4	E3	9E4	820	1/4W	comp	±10%	5905-99-022-1227
R13	4C7	E1	9D8	100k	1/4W	comp	±10%	5905-99-022-3038
R14	4D8	F3	9E8	2.2M	1/4W	comp	±10%	5905-99-022-3206
R15	4C7	F1	9D8	1M	1/4W	comp	±10%	5905-99-022-3164
R16	4B7	F2	9D8	100k	1/4W	comp	±10%	5905-99-022-3038
R17	4B8	G3	9D8	2.2M	1/4W	comp	±10%	5905-99-022-3206
R18	4B7	G2	9D8	1M	1/4W	comp	±10%	5905-99-022-3164
R21	7F4	A7	9C1	330k	1/4W	comp	±10%	5905-99-022-3101
R22	7F2	B5	9D3	5.6k	1/4W	comp	±10%	5905-99-022-2101
R23	7G5	B8	9B2	470	1/4W	comp	±10%	5905-99-022-1194
R24	7J2	C5	9C3	2.2k	3W	w.w.	±5%	5905-99-011-3328
R25	7H3	C6	9C3	3.3k	1/4W	comp	±10%	5905-99-022-2068
R26	7J4	D6	9C3	22k	1/4W	comp	±10%	5905-99-022-2173
R27	7J2	D5	9B4	220	1/2W	comp	±10%	5905-99-022-1153
R28	7K5	D8	9B3	27	1/2W	comp	±10%	5905-99-022-1038
R29	7L5	E8	9C5	1k	1/4W	comp	±10%	5905-99-022-2005
R30	7L5	E8	9C4	5.6k	1/4W	comp	±10%	5905-99-022-2101
R31	7M3	E5	9D6	10k	3W	w.w.	±5%	5905-99-011-3344
R33	7G4	B7	9C2	39k	1/2W	comp	±10%	5905-99-022-2207
				CAPACITORS				
C1	4C4	A3	10D5	10p	750V	N030	±0.5p	5910-99-940-9761
C2	4B4	A3	10D6	10p max		Trimmer		5910-99-016-0040
C3A	4B4	B3	10D6	6-50p		)		)
C3B	4D4	B2	10D3	6-50p		)		)
C3C	4F4	D3	10D4	6-50p		)6 gang +		)
C3D	7C4	G8	10E6	3-75p		)neutralising		)5910-99-940-9661
C3E	7L5	F8	10E4	5-100p		)air spaced		)
C3F	7H5	D8	10D3	3-75p		)variable		)
C3G	7M5	F7	10E4	0-1p		)		)

Table 2501 - (cont)

Cct ref	Component location			Value	Rating	Type and limit	Part No
	Main cct	Fig 2508	Unit layout				
CAPACITORS (cont)							
C4	4D4	A2	10D2	10p max		Trimmer	5910-99-016-0040
C5	4D4	A2	10D2	3.3p	500V	N2200 ±0.5p	5910-99-940-8472
C7	4D4	B2	9F2	47p	750V	N030 ±2%	5910-99-940-9788
C8	4E4	B3	9E2	0.001	350V	mica ±10%	5910-99-012-4702
C9	4E4	C2	9E3	0.001	350V	mica ±10%	5910-99-012-4702
C10	4E3	B2	9F3	22p	750V	N030 ±1p	5910-99-940-9810
C11	4F2	C2	9E5	0.001	350V	mica ±10%	5910-99-012-4702
C12	4F4	C3	10D4	6.8p	750V	N750 ±0.5p	5910-99-011-8683
C13	4G4	C2	9F4	47p	750V	N030 ±2%	5910-99-940-9788
C14	4F4	D3	10D4	10p max		Trimmer	5910-99-016-0040
C15	4G3	D1	10B6	4.7p	750V	N750 ±0.5p	5910-99-011-8598
C16	4G3	D1	10B6	100p	750V	N030 ±2%	5910-99-940-9347
C17	4H3	E1	9E5	0.02	175V	p.m.t. ±25%	5910-99-011-5595
C18	4G4	E3	9E4	0.005	350V	mica ±10%	5910-99-911-4746
C19	4G5	D3	9E5	6.8p	750V	P100 ±0.5p	5910-99-011-8276
C20	4D8	E3	9E7	82p	750V	N030 ±2p	5910-99-940-9727
C22	4D8	E3	10D7	3-30p		100kc/s trimmer	5910-99-016-7006
C23	4C7	F2	9D8	3.3p	750V	P100 ±0.5p	5910-99-011-8272
C24	4A8	F3	9F8	82p	750V	N030 ±2p	5910-99-940-9727
C25	4B8	F3	9F8	22p	750V	N030 ±1p	5910-99-940-9810
C26	4C7	G2	9D7	3.3p	750V	P100 ±0.5p	5910-99-011-8272
C27	4E4	B3	9E2	0.001	350V	mica ±10%	5910-99-012-4702
C28	4F2	E1	9E8	0.001	350V	mica ±10%	5910-99-012-4702
C31	7F2	A6	9D3	0.02	350V	p.m.t. ±25%	5910-99-011-5595
C32	7G5	B8	9B2	0.001	350V	mica ±10%	5910-99-012-4702
C33	7H2	B5	9D2	470p	750V	mica ±10%	5910-99-012-3949
C34	7H3	C7	9C3	470p	750V	mica ±10%	5910-99-012-3949
C35	7H5	C8	10D2	10p max		Trimmer	5910-99-016-0040
C36	7H2	C5	9B5	0.001	350V	mica ±10%	5910-99-012-4702
C38	7J4	D7	9C3	10p	750V	N750 ±0.5p	5910-99-011-8297
C40	7J2	D5	9B4	0.001	350V	mica ±10%	5910-99-012-4702
C41	7K4	D8	9B3	0.001	350V	mica ±10%	5910-99-012-4702
C42	7K5	E8	9C4	0.005	350V	mica ±10%	5910-99-911-4746
C43	7L3	D6	9C4	470p	750V	mica ±10%	5910-99-012-3949
C44	7M3	E6	9B6	0.001	350V	mica ±10%	5910-99-012-4702
C45	7L5	E8	9D5	0.001	350V	mica ±10%	5910-99-012-4702
C46	7M3	E6	9C6	47p	750V	mica ±10%	5910-99-012-3912
C48A	7N3	F6	9D7	470p	750V	mica ±10%	5910-99-012-3949
C48B	7N3	F6	9D7	470p	750V	mica ±10%	5910-99-012-3949
C49	7M5	F8	10E4	10p max		Trimmer	5910-99-016-0040

Table 2501 - (cont)

Cct ref	Component location: Main cct	Fig 2508	Unit layout	Value	Rating	Type and limit		Part No
CAPACITORS (cont)								
C50	7N4	G8	10E5	3.6p	750V	P100	±0.5p	5910-99-011-8275
C51	7N4	G6	9C6	470p	750V	mica	±10%	5910-99-012-3949
C53	7N4	G8	10E6	2-8p		Trimmer		5910-99-940-9809
C54	7M5	F8	10E4	22p	750V	N750	±0.5p	5910-99-011-8305
C55	7J5	C8	9C2	10p	750V	N750	±0.5p	5910-99-011-8297

Cct ref	Component location: Main cct	Fig 2508	Unit layout	Description	Part No
MISCELLANEOUS					
RLA	5Y10	G3	10F8	Relay, armature, 24V, 700Ω	5945-99-053-0458
RLB	5Y9	G4	10F8	Relay, armature, 24V, 700Ω	5945-99-053-0458
V1	4E3	B3	10B3	Valve, electronic, CV 4010	5960-99-000-4010
V2	4G3	D3	10B4	Valve, electronic, CV 4010	5960-99-000-4010
V3	4C8	F3	10D8	Valve, electronic, CV 4010	5960-99-000-4010
V4	4C8	G3	10E8	Valve, electronic, CV 4010	5960-99-000-4010
V5	4G4	B6	10F2	Valve, electronic, CV 4010	5960-99-000-4010
V6	4J3	C6	10F3	Valve, electronic, CV 133	5960-99-000-0133
V7	4K4	D7	10F4	Valve, electronic, CV 2243	5960-99-000-2243
V8	4M4	F6	10F6	Valve, electronic, CV 2220	5960-99-000-2220
XL1	4D7	E2	10C8	Crystal unit, 100kc/s	5955-99-949-0853
XL2	4B7	F2	10B8	Crystal unit, 1000kc/s	5955-99-949-0847
L1	4C4	A3	9F6	Transformer, r.f., 5.1/2 turns	5950-99-949-0649
L2	4C4	A2	9E6	Inductor, r.f., 15 turns	5950-99-949-0678
L3	4C4	A1	9F2	Transformer, r.f., 5.1/2 turns	5950-99-949-0647
L4	4F4	C4	9F4	Transformer, r.f., 5.1/2 turns	5950-99-949-0646
L9	2C4	C8	9B2	Inductor, r.f., 84 turns	5950-99-949-0882
L10	7H4	C8	9C2	Transformer, r.f., 3.3/4 turns	5950-99-949-0611
L11	7K3	D5	9B4	Inductor, r.f., 94 turns	5950-99-949-0993
L12	7L5	F7	9C4	Transformer, r.f., 2.3/4 turns	5950-99-949-0662
L13	7N3	F5	9D7	Inductor, r.f., 84 turns	5950-99-949-0882
L14	7M4	F6	9C6	Inductor, r.f., 60 turns	5950-99-911-0982
L15	705	G8	10F7	Transformer, r.f., 4 turns	5950-99-949-0610
L17	2D4	C8	9B3	Inductor, r.f., 84 turns	5950-99-949-0882
L18	7M4	E7	9C5	Suppressor, parasitic, 2.1/2 turns on 56Ω	5915-99-949-0614
X1	7G3	B6	9C2	Saturable reactor	5950-99-949-0807
T9	4G3	D2	10B5	Transformer, i.f., 6Mc/s	5950-99-949-0780

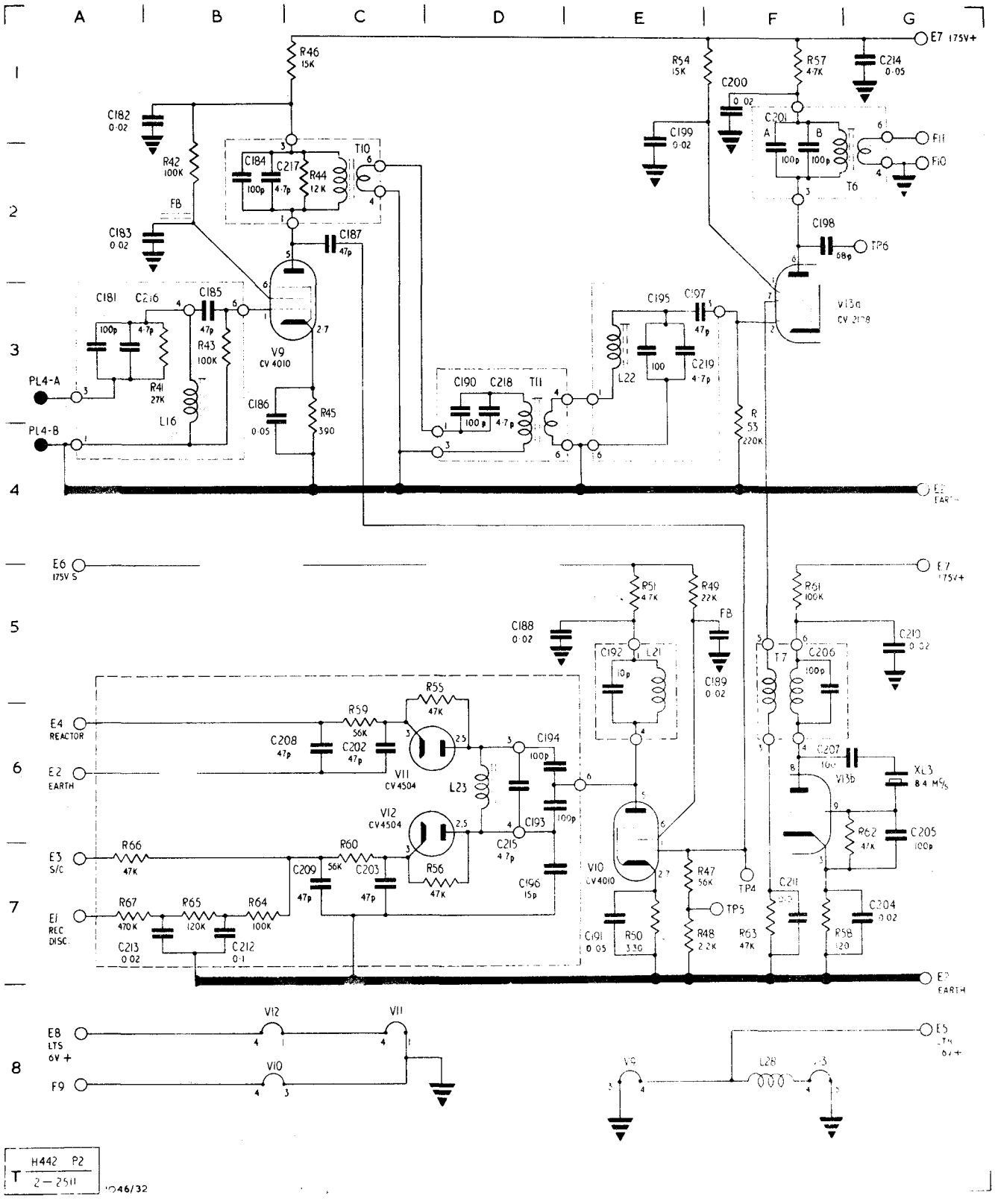

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Fig 2511 - 1st i.f. unit, circuit diagram

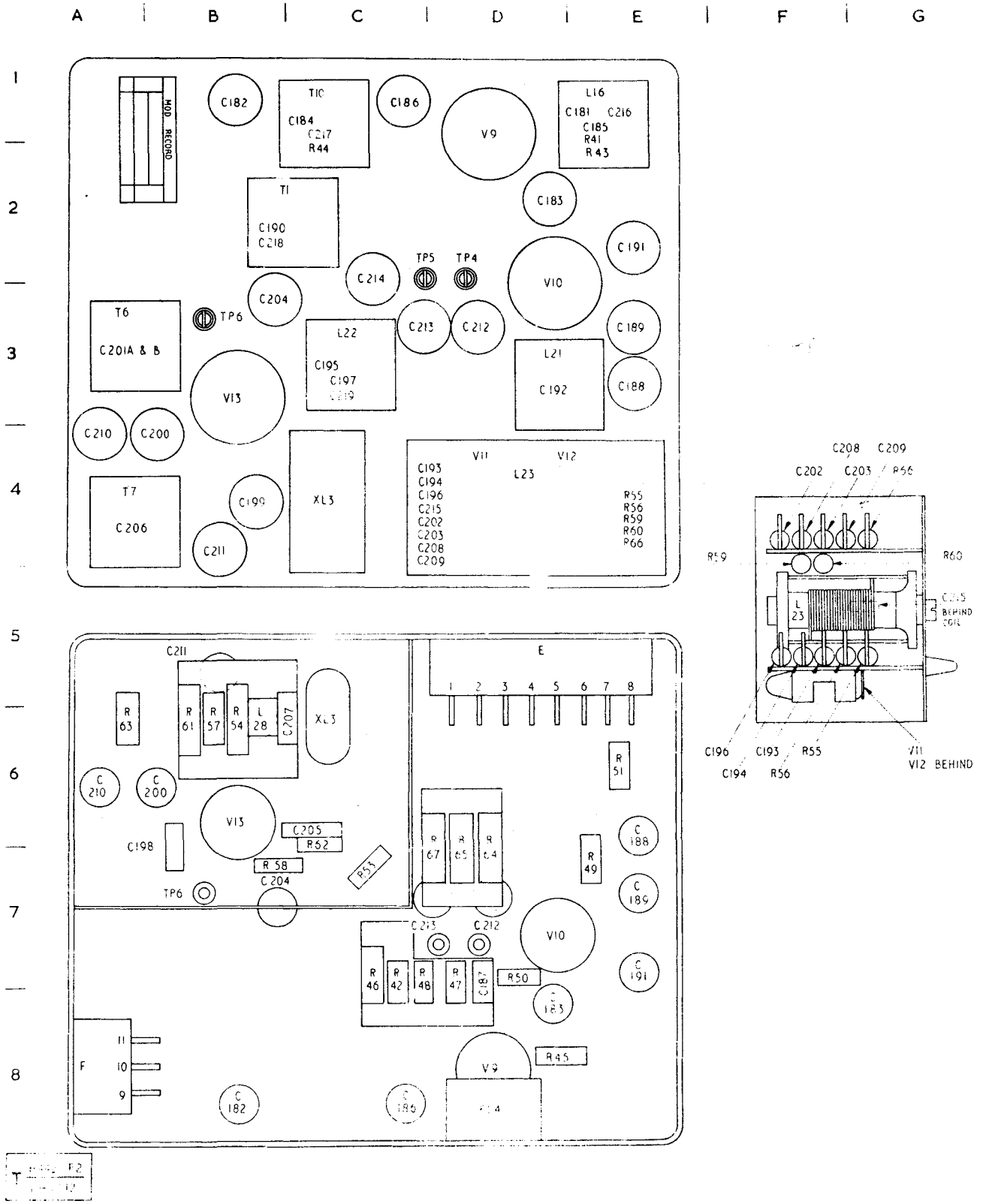

Fig 2512 - 1st i.f. unit, layout

Table 2502 - 1st i.f. unit (5950-99-949-0835) - component schedule

Cct ref	Component location: Main cct	Fig 2511	Fig 2512	Value	Rating	Type and limit		Part No
				RESISTORS				
R41	4J4	B3	E1	27k	1/4W	comp	±10%	5905-99-022-2185
R42	4J2	B2	C7	100k	1/4W	comp	±10%	
R43	4K4	B3	E2	100k	1/4W	comp	±10%	5905-99-022-3038
R44	4K3	C2	C2	12k	1/4W	comp	±10%	5905-99-022-2143
R45	4K5	C3	E8	390	1/4W	comp	±10%	5905-99-022-1185
R46	4K2	C1	C7	15k	1/2W	comp	±10%	5905-99-022-2153
R47	7K8	F7	D7	56k	1/4W	comp	±10%	5905-99-022-3008
R48	7K9	F7	D7	2.2k	1/4W	comp	±10%	5905-99-022-2047
R49	7K7	F5	E7	2.2k	1/4W	comp	±10%	5905-99-022-2173
R50	7K9	E7	D7	330	1/4W	comp	±10%	5905-99-022-1173
R51	7K6	E5	E6	4.7k	1/4W	comp	±10%	5905-99-022-2089
R53	4N4	F3	C7	220k	1/4W	comp	±10%	5905-99-022-3080
R54	4N2	E1	B6	15k	7W	w.w.	±5%	5905-99-022-3348
R55	7H7	D5	E4	47k	1/4W	comp	±10%	5905-99-022-2215
R56	7H9	D7	E4	47k	1/4W	comp	±10%	5905-99-022-2215
R57	402	F1	B6	4.7k	1/4W	comp	±10%	5905-99-022-2089
R58	4C8	F7	C7	120	1/4W	comp	±10%	5905-99-022-1122
R59	7G7	C6	E4	56k	1/4W	comp	±10%	5905-99-022-3008
R60	7G8	C7	E4	56k	1/4W	comp	±10%	5905-99-022-3008
R61	406	F5	B6	100k	1/4W	comp	±10%	5905-99-022-3039
R62	408	G6	C7	47k	1/4W	comp	±10%	5905-99-022-2215
R63	4N8	F7	B6	47k	1/4W	comp	±10%	5905-99-022-2215
R64	7F9	B7	D7	100k	1/4W	comp	±10%	5905-99-022-3038
R65	7G9	B7	D7	120k	1/4W	comp	±10%	5905-99-022-3050
R66	7F8	B7	E4	47k	1/4W	comp	±10%	5905-99-022-2215
R67	7H9	B7	D7	470k	1/4W	comp	±10%	5905-99-022-3122
				CAPACITORS				
C181	4J4	A3	E1	100p	750V	N030	±2%	5910-99-940-9347
C182	4K2	B1	B1	0.02	350V	p.m.t.	±20%	5910-99-011-5595
C183	4J2	B2	D2	0.02	350V	p.m.t.	±20%	5910-99-011-5595
C184	4K3	B2	C1	100p	750V	N030	±2%	5910-99-940-9347
C185	4K4	B3	E1	47p	750V	N030	±10%	5910-99-940-9344
C186	4L5	B3	C1	0.05	350V	p.m.t.	±20%	5910-99-011-5596
C187	4L4	C2	D7	47p	750V	N030	±2%	5910-99-940-9345
C188	7J7	D5	E3	0.02	350V	p.m.t.	±20%	5910-99-011-5595
C189	7K7	F5	E3	0.02	350V	p.m.t.	±20%	5910-99-011-5595
C190	4L3	D3	C2	100p	750V	N030	±2%	5910-99-940-9347
C191	7J9	E7	E2	0.05	350V	p.m.t.	±20%	5910-99-011-5596
C192	7J7	E5	D3	10p	750V	N047	±0.5p	5910-99-940-9808
C193	7H8	D6	D4	100p	750V	N047	±2%	5910-99-940-9346
C194	7H7	D6	D4	100p	750V	N047	±2%	5910-99-940-9346
C195	4M3	E3	C3	100p	750V	N030	±2%	5910-99-940-9347

Table 2502 - (cont)

Cct ref	Component location			Value	Rating	Type and limit		Part No
	Main cct	Fig 2511	Fig 2512					
CAPACITORS (cont)								
C196	7H8	D7	D4	15p	750V	N047	±0.5p	5910-99-940-9342
C197	4N3	E3	C3	47p	750V	N030	±2%	5910-99-940-9345
C198	403	F2	B7	68p	500V	N750	±2%	5910-99-011-8317
C199	4N2	E1	B4	0.02	350V	p.m.t.	±20%	5910-99-011-5595
C200	402	F1	B4	0.02	350V	p.m.t.	±20%	5910-99-011-5595
C201A	4N3	F1	A3	100p	750V	N047	±2%	5910-99-940-9346
C201B	4N3	F1	A3	100p	750V	N047	±2%	5910-99-940-9346
C202	7G7	C6	D4	47p	750V	N750	±2%	5910-99-011-8313
C203	7G9	C7	D4	47p	750V	N750	±2%	5910-99-011-8313
C204	408	G7	C3	0.02	350V	p.m.t.	±20%	5910-99-011-5595
C205	408	G6	C6	100p	750V	N750	±2%	5910-99-011-8321
C206	406	F5	B4	100p	750V	N030	±2%	5910-99-940-9347
C207	407	F6	C6	100p	750V	N750	±2%	5910-99-011-8321
C208	7F7	C6	D4	47p	750V	N750	±2%	5910-99-011-8313
C209	7G9	C7	D4	47p	750V	N750	±2%	5910-99-011-8313
C210	406	G5	A4	0.02	350V	p.m.t.	±20%	5910-99-011-5595
C211	408	F7	B4	0.01	350V	p.m.t.	±25%	5910-99-011-5625
C212	7G9	B7	D3	0.1	200V	p.m.t.	±20%	5910-99-011-5599
C213	7G9	A7	D3	0.02	350V	p.m.t.	±20%	5910-99-011-5595
C214	4M2	G1	C2	0.05	350V	p.m.t.	±25%	5910-99-011-5596
C215	7H8	D7	D4	4.7p	750V	N750	±0.5p	5910-99-011-8598
C216	4J4	A3	E1	4.7p	750V	N750	±0.5p	5910-99-011-8598
C217	4K3	B2	C1	4.7p	750V	N750	±0.5p	5910-99-011-8598
C218	4L3	D3	C2	4.7p	750V	N750	±0.5p	5910-99-011-8598
C219	4M3	E3	C3	4.7p	750V	N750	±0.5p	5910-99-011-8598

Cct ref	Component location			Description	Part No
	Main cct	Fig 2511	Fig 2512		
MISCELLANEOUS					
XL3	4P7	G6	C4	Crystal unit, 8400kc/s	5955-99-949-0852*
V9	4K4	C3	D1	Valve, thermionic, CV 4010	5960-99-000-4010
V10	7J8	E7	D3	Valve, thermionic, CV 4010	5960-99-000-4010
V11	7H7	C6	D4	Valve, thermionic, CV 4504	5960-99-000-4504
V12	7H8	C6	E4	Valve, thermionic, CV 4504	5960-99-000-4504
V13	4N4	F3	B3	Valve, thermionic, CV 2128	5960-99-000-2128
L16	4K4	B4	E1	Inductor, r.f., 23 turns, 6.4µH	5950-99-949-0724
L21	7K7	E5	E3	Inductor, r.f., 53 turns, 13.0µH	5950-99-949-0723
L22	4N3	E3	C3	Inductor, r.f., 24.1/2 turns, 7µH	5950-99-949-0725
L23	7H8	D6	D4	Inductor, r.f., 46 turns	5950-99-949-0830
L28	2F5	F8	B6	Inductor, r.f., 84 turns	5950-99-949-0882
T6	403	G2	A3	Transformer, i.f., 6Mc/s	5950-99-949-0781
T7	406	F5	A4	Transformer, i.f., 6Mc/s	5950-99-949-0783
T10	4K3	C2	C1	Transformer, i.f., 6Mc/s	5950-99-949-0784
T11	4L3	D3	C2	Transformer, i.f., 6Mc/s	5950-99-949-0782

* OBSOLETE CRYSTAL UNIT REPLACED BY 5820-99-659-0094 REFER TO H 447 MOD INSTR. NO. 28.

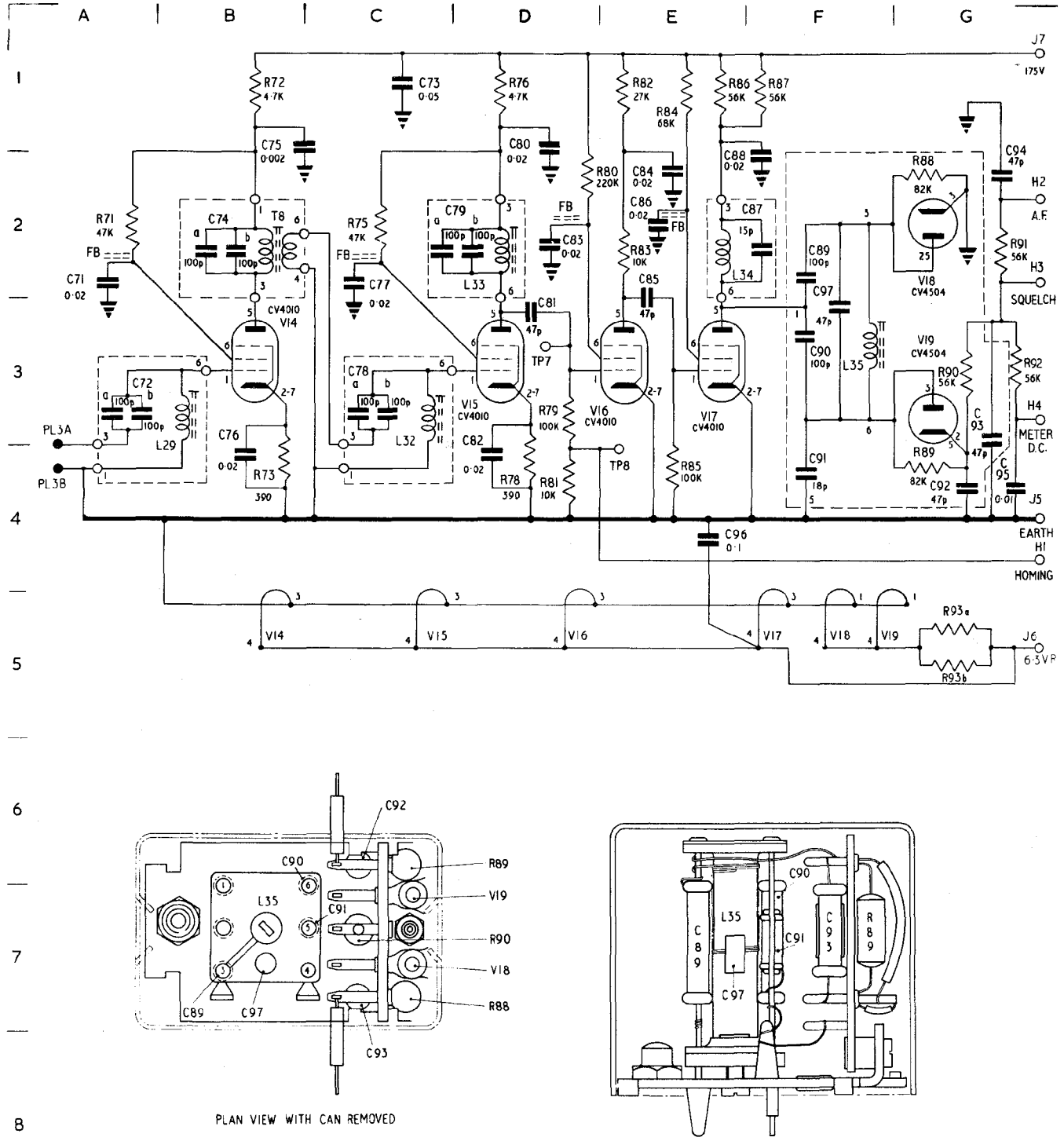

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Fig 2513 - 2nd i.f. unit, circuit diagram and discriminator can layout

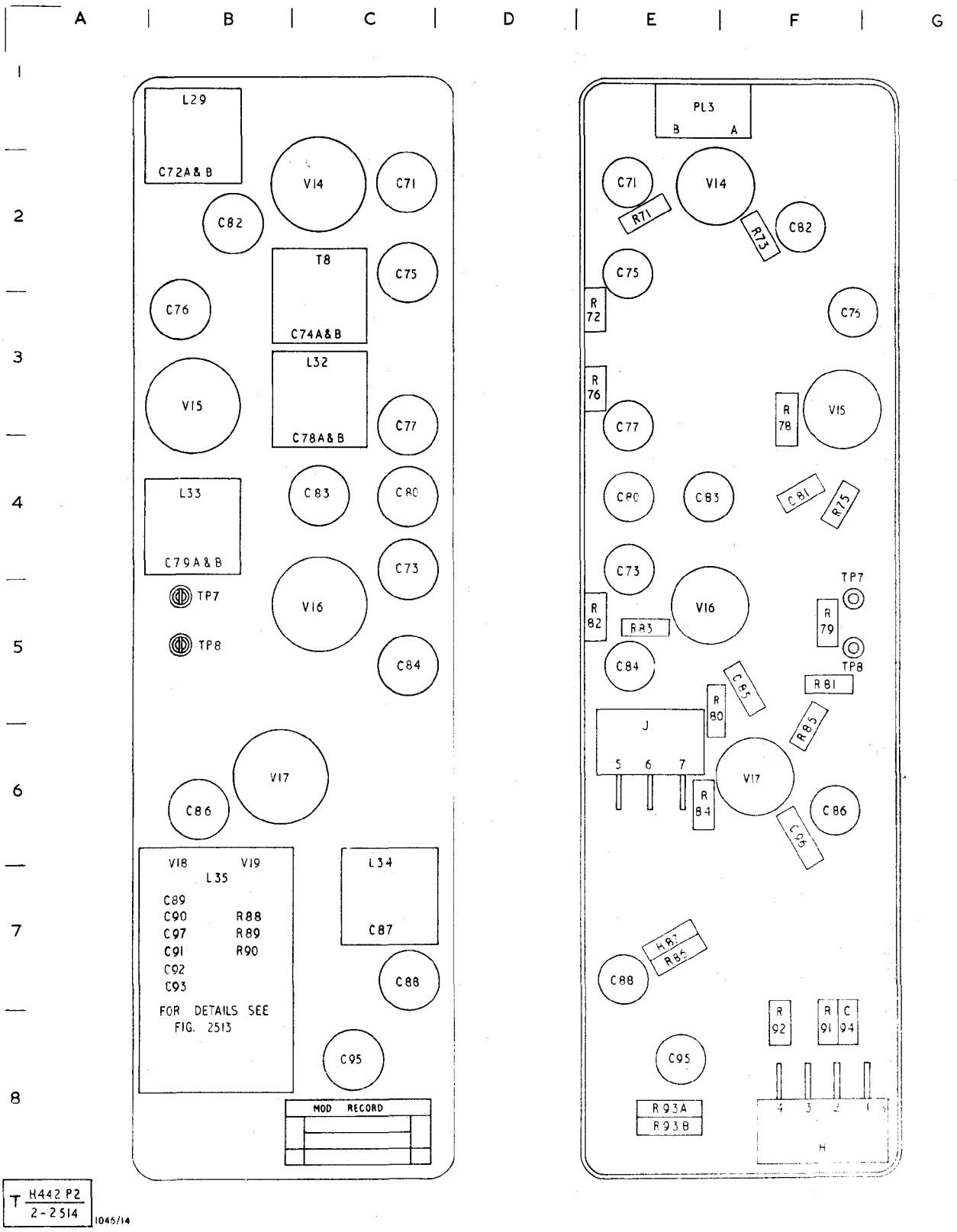


Fig 2514 - 2nd i.f. unit, layout

Table 2503 - 2nd i.f. unit (5950-99-949-0839) - component schedule

Cct ref	Component location: Main cct	Fig 2513	Fig 2514	Value	Rating	Type and limit		Part No
				RESISTORS				
R71	5Q2	A2	E2	47k	1/4W	comp	±10%	5905-99-022-2215
R72	5R2	B1	E3	4.7k	1/2W	comp	±10%	5905-99-022-2090
R73	5Q5	B4	F2	390	1/4W	comp	±10%	5905-99-022-1185
R75	5S2	C2	F4	47k	1/4W	comp	±10%	5905-99-022-2215
R76	5S2	D1	E3	4.7k	1/2W	comp	±10%	5905-99-022-2090
R78	5S5	D4	F3	390	1/4W	comp	±10%	5905-99-022-1185
R79	5T4	D3	F5	100k	1/4W	comp	±10%	5905-99-022-3038
R80	5T2	E2	F5	220k	1/4W	comp	±10%	5905-99-022-3080
R81	5T5	E4	F5	10k	1/4W	comp	±10%	5905-99-022-2131
R82	5T2	E1	E5	27k	1/4W	comp	±10%	5905-99-022-2185
R83	5T3	E2	E5	10k	1/4W	comp	±10%	5905-99-022-2131
R84	5U2	E1	E6	68k	1/2W	comp	±10%	5905-99-022-3018
R85	5U4	E4	F5	100k	1/4W	comp	±10%	5905-99-022-3038
R86	5U2	E1	E7	56k	1/2W	comp	±10%	5905-99-022-3009
R87	5V2	F1	E7	56k	1/2W	comp	±10%	5905-99-022-3009
R88	5W3	G2	B7	82k	1/4W	comp	±10%	5905-99-022-3029
R89	5W4	G4	B7	82k	1/2W	comp	±10%	5905-99-022-3029
R90	5W4	G3	B7	56k	1/2W	comp	±10%	5905-99-022-3008
R91	5X4	G2	F7	56k	1/2W	comp	±10%	5905-99-022-3008
R92	5T5	G3	F7	56k	1/2W	comp	±10%	5905-99-022-3008
R93A	2E6	G5	E8	8.2	1.1/2W	w.w.	±5%	
R93B	2E6	G5	E8	8.2	1.1/2W	w.w.	±5%	5905-99-022-4803
				CAPACITORS				
C71	5P2	A2	C2	0.02	350V	p.m.t.	±25%	5910-99-011-5595
C72A	5Q4	A3	B2	100p	750V	N047	±2%	5910-99-940-9346
C72B	5Q4	A3	B2	100p	750V	N047	±2%	5910-99-940-9346
C73	5R2	C1	C4	0.05	350V	p.m.t.	±25%	5910-99-011-5596
C74A	5Q3	B2	C3	100p	750V	N047	±2%	5910-99-940-9346
C74B	5Q3	B2	C3	100p	750V	N047	±2%	5910-99-940-9346
C75	5R2	B4	C2	0.02	350V	p.m.t.	±25%	5910-99-011-5595
C76	5R5	B3	B3	0.02	350V	p.m.t.	±25%	5910-99-011-5595
C77	5R3	C2	C3	0.02	350V	p.m.t.	±25%	5910-99-011-5595
C78A	5R4	C3	C3	100p	750V	N047	±2%	5910-99-940-9346
C78B	5R4	C3	C3	100p	750V	N047	±2%	5910-99-940-9346
C79A	5S3	D2	B4	100p	750V	N047	±2%	5910-99-940-9346
C79B	5S3	D2	B4	100p	750V	N047	±2%	5910-99-940-9346
C80	5T2	D1	C4	0.02	350V	p.m.t.	±25%	5910-99-011-5595
C81	5T4	D3	F4	47p	750V	N750	±2%	5910-99-011-8313

Table 2503 - (cont)

Cct ref	Component location: Main cct	Fig 2513	Fig 2514	Value	Rating	Type and limit	Part No
				CAPACITORS (cont)			
C82	5T5	D4	B2	0.02	350V	p.m.t. ±25%	5910-99-011-5595
C83	5T2	D2	C4	0.02	350V	p.m.t. ±25%	5910-99-011-5595
C84	5U2	E2	C5	0.02	350V	p.m.t. ±25%	5910-99-011-5595
C85	5U4	E2	F5	47p	750V	N750 ±2%	5910-99-011-8313
C86	5U2	E2	B6	0.02	350V	p.m.t. ±25%	5910-99-011-5595
C87	5U3	F2	C7	15p	750V	N030 ±0.5p	5910-99-940-9341
C88	5V2	E2	C7	0.02	350V	p.m.t. ±25%	5910-99-011-5595
C89	5V3	F2	B7	100p	750V	N030 ±2%	5910-99-940-9347
C90	5V4	F3	B7	100p	750V	N030 ±2%	5910-99-940-9347
C91	5V4	F4	B7	18p	750V	N030 ±1p	5910-99-940-9343
C92	5W4	G4	B7	47p	750V	N750 ±2%	5910-99-940-8313
C93	5W4	G3	B7	47p	750V	N750 ±2%	5910-99-940-8313
C94	5W5	G2	F8	47p	750V	N750 ±2%	5910-99-940-8313
C95	5S5	G4	C8	0.01	200V	p.m.t. ±25%	5910-99-011-5627
C96	2E7	E4	F6	0.1	150V	p.m.t. ±25%	5910-99-011-9827
C97	5V3	F2	B7	47p	750V	N150 ±0.5p	5910-99-940-8513

Cct ref	Component location: Main cct	Fig 2513	Fig 2514	Description	Part No
				MISCELLANEOUS	
V14	5Q4	B3	C2	Valve, thermionic, CV 4010	5960-99-000-4010
V15	5J4	D3	B3	Valve, thermionic, CV 4010	5960-99-000-4010
V16	5U4	E3	C5	Valve, thermionic, CV 4010	5960-99-000-4010
V17	5U5	E3	C6	Valve, thermionic, CV 4010	5960-99-000-4010
V18	5W3	G2	B7	Valve, thermionic, CV 4504	5960-99-000-4504
V19	5W4	G3	B7	Valve, thermionic, CV 4504	5960-99-000-4504
L29	5P4	B4	B1	Inductor, r.f., 80 turns, 27.8µH	5950-99-949-0728
L32	5R4	C4	C3	Inductor, r.f., 82 turns, 28µH	5950-99-949-0722
L33	5T3	D2	B4	Inductor, r.f., 75 turns, 26.2µH	5950-99-949-0726
L34	5V3	F2	C7	Inductor, r.f., 106 turns, 100µH	5950-99-949-0727
L35	5W3	F3	B7	Inductor, r.f., 84 turns, 20.6µH	5950-99-949-0721
T8	5R3	B2	C2	Transformer, i.f., 2.4Mc/s	5950-99-949-0785

Table 2504 - Oscillator and scale assembly (5820-99-943-9362) - component schedule

Cct ref	Component location: Main cct	Component location: Fig 2515	Component location: Fig 2516	Value	Rating	Type and limit		Part No
			RESISTORS					
R171	4G6	C1	C6	10k	1/4W	comp	±5%	5905-99-022-2128
R172	4G8	C4	C3	270k	1/4W	comp	±5%	5905-99-022-3089
R173	4G6	F1	C6	1k	1/4W	comp	±5%	5905-99-022-2002
			CAPACITORS					
C161	4F7	E3	C2	4.5p		Trimmer		5910-99-016-0039
C162	4G6	C2	D6	0.001	350V	mica	±10%	5910-99-012-4702
C163	4G7	D3	C2	8.2p	750V	N030	±10%	5910-99-940-9762
C164	4G8	D3	D3	15p	750V	N750	±5%	5910-99-011-8301
C165	4G7	D2	D3	10p	750V	N030	±0.5p	5910-99-940-9761
C166	4G8	C3	C3	15p	750V	N750	±5%	5910-99-011-8301
C167	4F6	E1	E4	0.001	350V	mica	±10%	5910-99-012-4702

Cct ref	Component location: Main cct	Component location: Fig 2515	Component location: Fig 2516	Description	Part No
			MISCELLANEOUS		
V31	4H8	B3	E8	Valve, thermionic, CV 4064	5960-99-000-4064
L40	4F7	E2	D2	Inductor, variable, r.f., 0.08-0.9μH	5950-99-949-0654
L41	4G7	C2	D2	Inductor, r.f., 94 turns	5950-99-911-0993
T12	4G6	B2	D7	Transformer, r.f., 42-66Mc/s	5950-99-949-0594

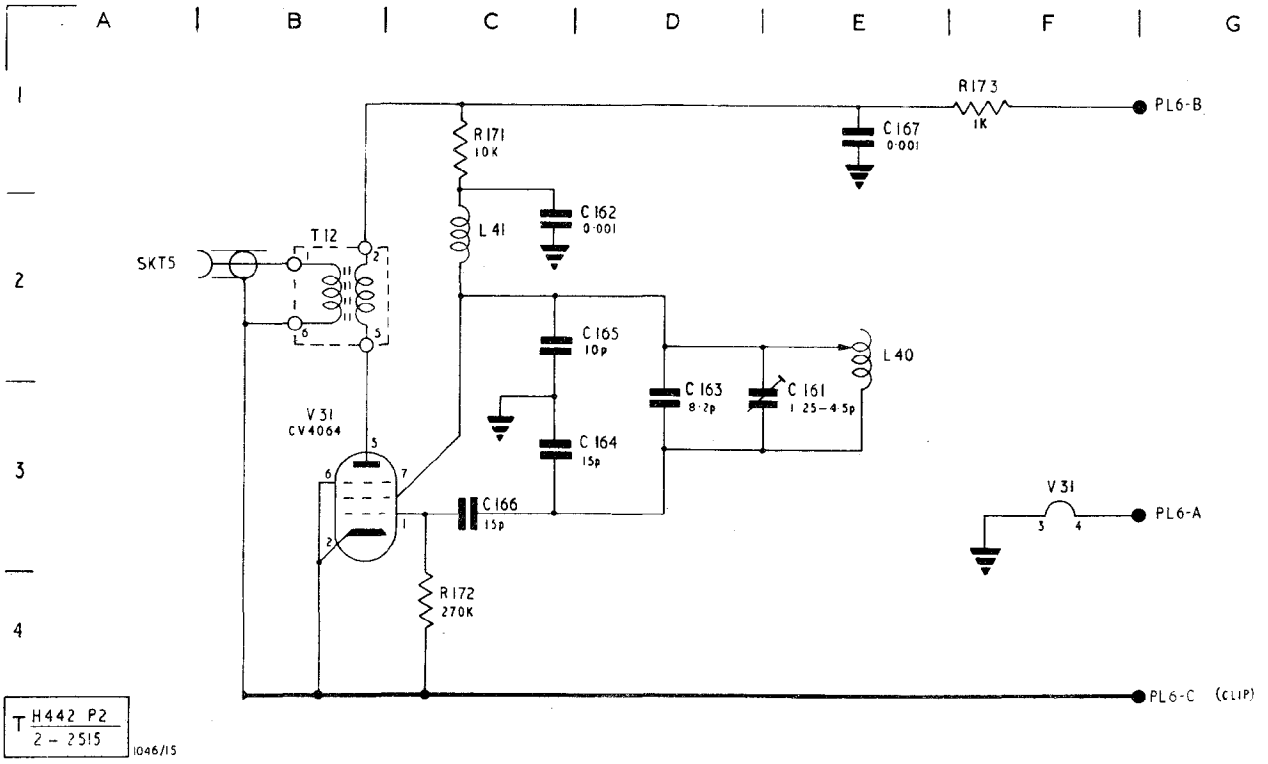


Fig 2515 - 1st local oscillator unit, circuit diagram

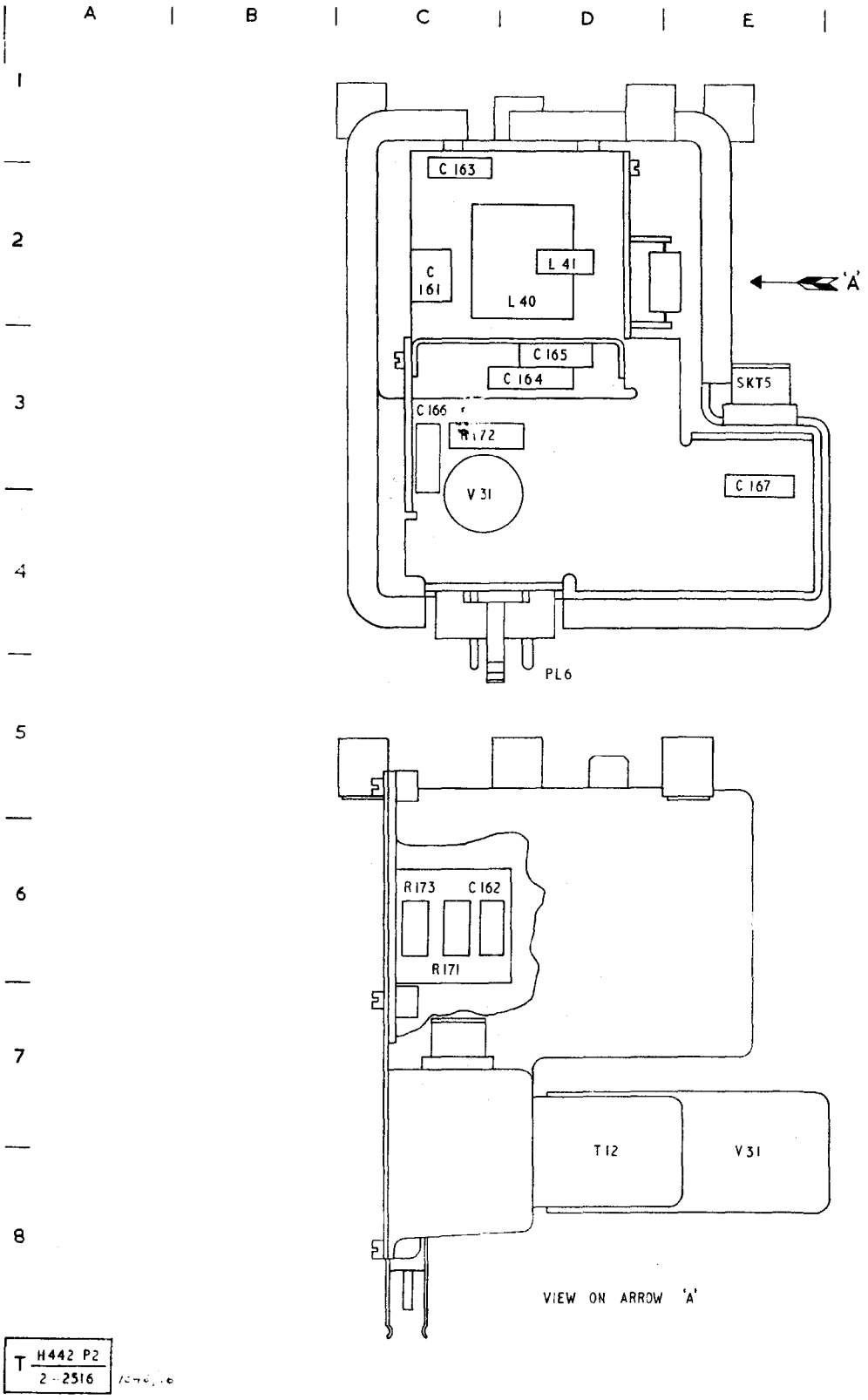


Fig 2516 - 1st local oscillator unit, layout

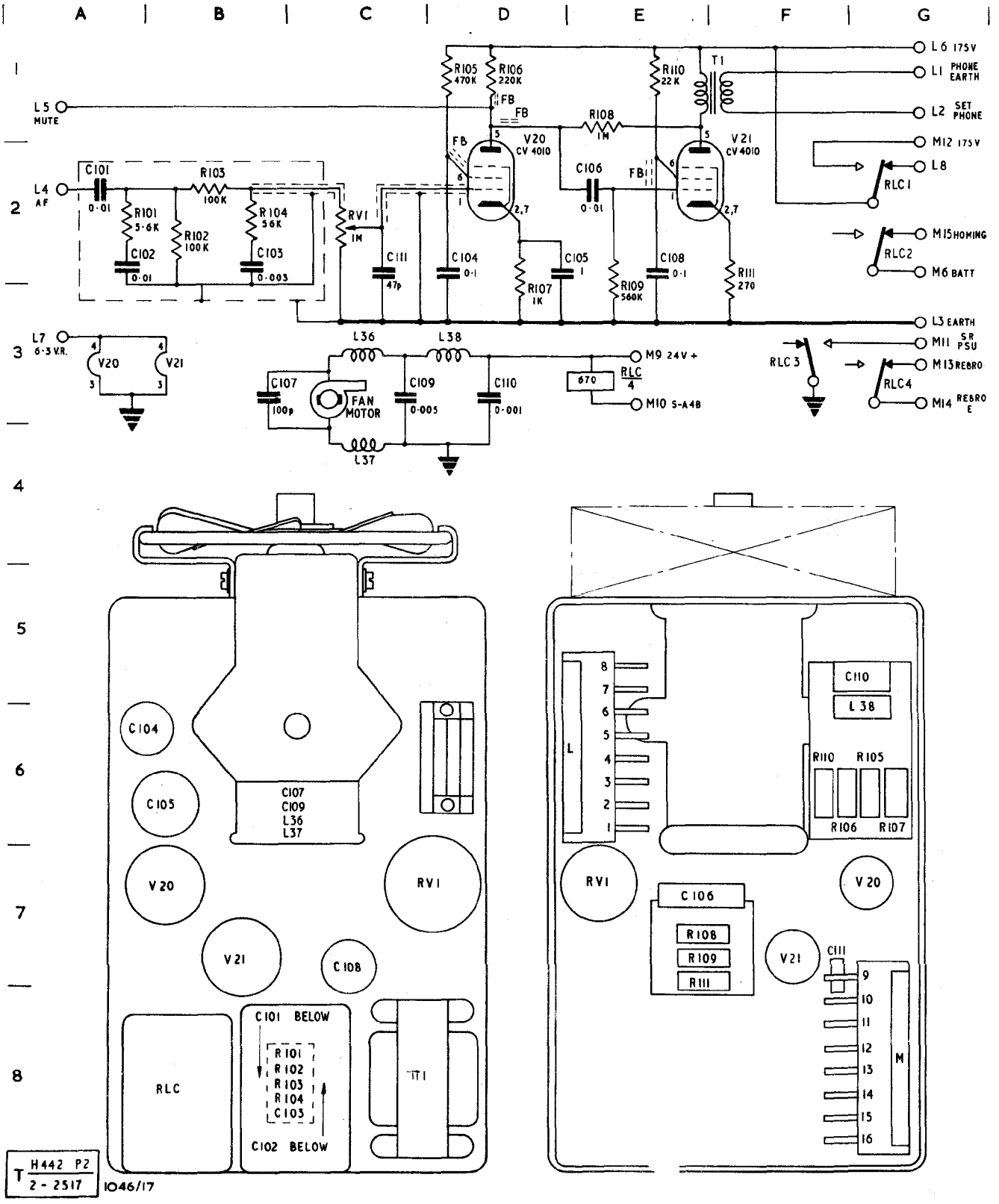


Fig 2517 - Amplifier and motor assembly, circuit diagram and layout

Table 2505 - Amplifier and motor assembly (5820-99-949-0586) - component schedule

Cct ref	Component location: Main cct	Component location: Fig 2517 Cct	Component location: Fig 2517 Layout	Value	Rating	Type and Limit		Part No
				RESISTORS				
RV1	5Y5	C2	D7	1M	1/4W	linear		5905-99-026-2748
R101	5X5	B2	C8	5.6k	1/4W	comp	±10%	5905-99-022-2101
R102	5Y5	B2	C8	100k	1/4W	comp	±10%	5905-99-022-3038
R103	5Y4	B2	C8	100k	1/4W	comp	±10%	5905-99-022-3038
R104	5Y4	B2	C8	56k	1/4W	comp	±10%	5905-99-022-3008
R105	5Y2	D1	G6	470k	1/4W	comp	±10%	5905-99-022-3122
R106	5Z2	D1	G6	220k	1/4W	comp	±10%	5905-99-022-3080
R107	5Z5	D2	G6	1k	1/4W	comp	±10%	5905-99-022-2005
R108	5Z3	E1	F7	1M	1/4W	comp	±10%	5905-99-022-3164
R109	5AA5	E2	F7	560k	1/4W	comp	±10%	5905-99-022-3134
R110	5AA2	E1	F6	22k	1/4W	comp	±10%	5905-99-022-2173
R111	5AA5	F2	F7	270	1/4W	comp	±10%	5905-99-022-1164
				CAPACITORS				
C101	5X4	A2	C8	0.01	200V	p.m.t.	±25%	5910-99-011-5627
C102	5Y5	A2	C8	0.01	200V	p.m.t.	±25%	5910-99-011-5627
C103	5Y5	B2	C8	0.003	400V	p.m.t.	±20%	5910-99-012-0121
C104	5Y3	D2	B6	0.1	250V	p.m.t.	±25%	5910-99-011-9828
C105	5Z5	E2	B6	1.0	150V	p.m.t.	±25%	5910-99-011-9836
C106	5Z3	E2	F7	0.01	350V	p.m.t.	±25%	5910-99-011-5594
C107	5AA7	C3	C6	100p	750V	N750	±2%	5910-99-011-8321
C108	5Z3	E2	C7	0.1	250V	p.m.t.	±25%	5910-99-011-9828
C109	5Z7	D3	C6	0.005	200V	p.m.t.	±25%	5910-99-011-5626
C110	5Y7	D3	G5	0.001	350V	mica	±10%	5910-99-012-4702
C111	5Z5	C2	G7	47p	750V	mica	±10%	5910-99-012-3913

Cct ref	Component location: Main cct	Component location: Fig 2517 Cct	Component location: Fig 2517 Layout	Description	Part No
				MISCELLANEOUS	
V20	5Z4	D2	B7	Valve, thermionic, CV 4010	5960-99-000-4010
V21	5AA4	F2	B7	Valve, thermionic, CV 4010	5960-99-000-4010
T1	5AA3	F1	C8	Transformer, a.f.,	5950-99-911-0868
L36	5Z6	C3	C6	Inductor, r.f., 84 turns	5950-99-949-0882
L37	5Z7	C4	C6	Inductor, r.f., 84 turns	5950-99-949-0882
L38	5Y6	D3	G6	Inductor, r.f., 84 turns	5950-99-949-0882
RLC	5Z7	E3	B8	Relay, armature, 24V, 670Ω	Y1/5945-99-901-0449
FAN	5Z7	C3	C5	Motor, d.c., p.m., 28V, 6400 rev/min	6105-99-110-2134

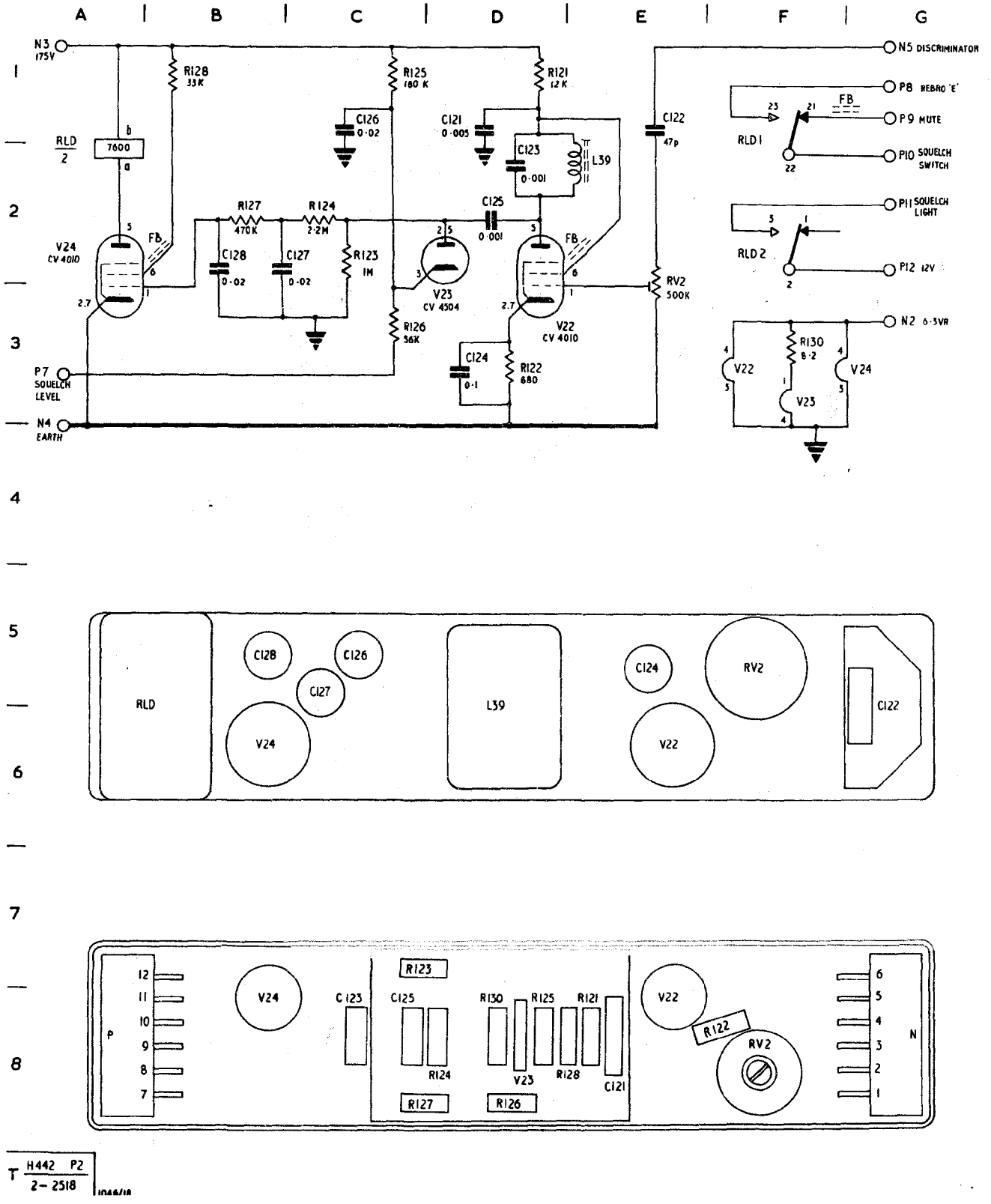
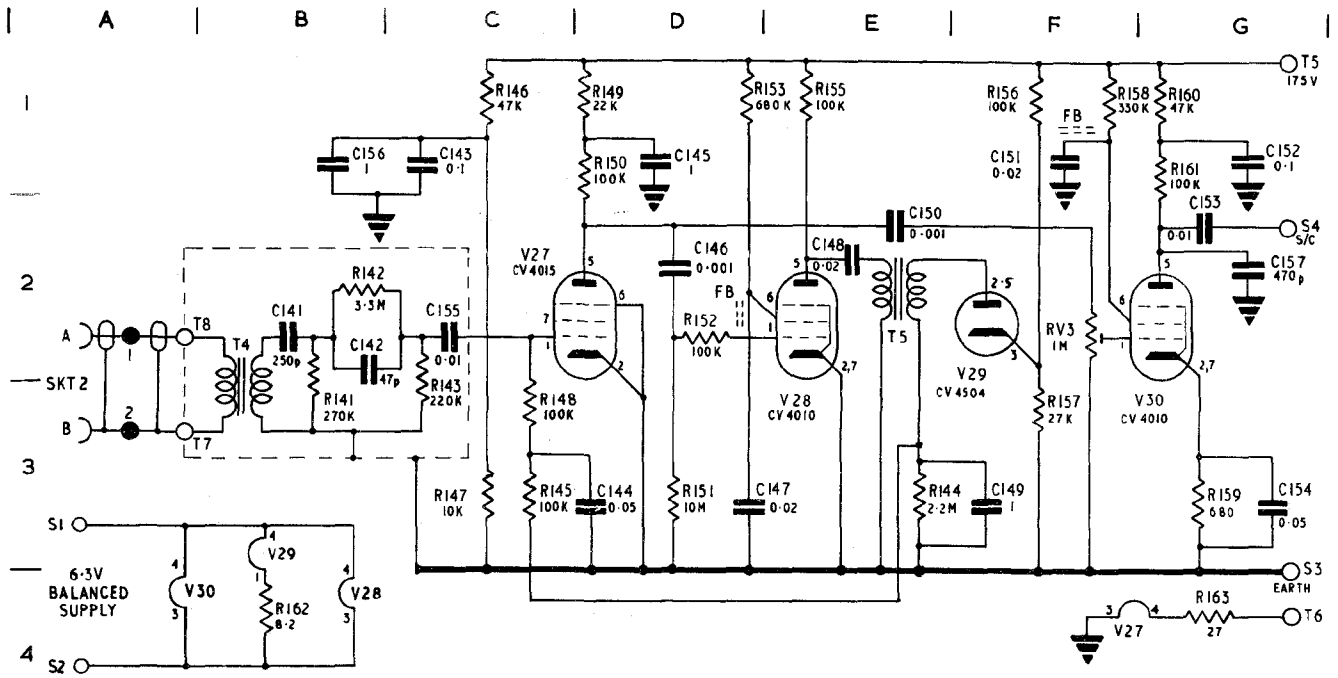


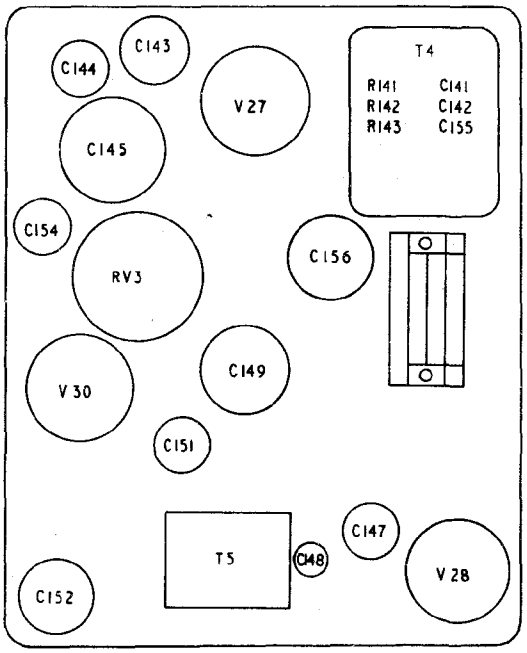
Fig 2518 - Squelch unit, circuit diagram and layout

Table 2506 - Squelch unit - component schedule

Cct ref	Component location: Main cct	Component location: Fig 2518 Cct	Component location: Fig 2518 Layout	Value	Rating	Type and limit	Part No
			RESISTORS				
R121	5T6	D1	E8	12k	1/4W	comp ±10%	5905-99-022-2143
R122	5U9	D3	F8	680	1/4W	comp ±10%	5905-99-022-1215
R123	5U8	C2	D7	1M	1/4W	comp ±10%	5905-99-022-3164
R124	5U8	C2	D8	2.2M	1/4W	comp ±10%	5905-99-022-3206
R125	5U7	C1	E8	180k	1/4W	comp ±10%	5905-99-022-3071
R126	5U9	C3	D8	56k	1/4W	comp ±10%	5905-99-022-3008
R127	5V8	B2	D8	470k	1/4W	comp ±10%	5905-99-022-3122
R128	5W7	B1	E8	33k	1/4W	comp ±10%	5905-99-022-2194
R130	2E8	F3	D8	8.2k	1.1/2W	w.w. ±5%	5905-99-911-4803
RV2	5T8	E3	F8	500k	1/4W	log. variable	5905-99-940-9739
			CAPACITORS				
C121	5T7	D1	E8	0.005	350V	p.m.t. ±20%	5910-99-011-5593
C122	5T6	E1	G6	47p	750V	N750 ±2%	5910-99-011-8313
C123	5T7	D2	C8	0.001	350V	mica ±2%	5910-99-012-4700
C124	5T9	D3	E5	0.1	150V	p.m.t. ±25%	5910-99-011-9827
C125	5U8	D2	D8	0.001	350V	p.m.t. ±25%	5910-99-011-5623
C126	5U7	C1	C5	0.02	350V	p.m.t. ±20%	5910-99-011-5595
C127	5V8	C2	C5	0.02	350V	p.m.t. ±20%	5910-99-011-5595
C128	5V8	B2	B5	0.02	350V	p.m.t. ±20%	5910-99-011-5595

Cct ref	Component location: Main cct	Component location: Fig 2518 Cct	Component location: Fig 2518 Layout	Description	Part No
			MISCELLANEOUS		
V22	5U8	D3	E6	Valve, thermionic, CV 4010	5960-99-000-4010
V23	5V7	D3	D8	Valve, thermionic, CV 4504	5960-99-000-4504
V24	5V8	A2	B6	Valve, thermionic, CV 4010	5960-99-000-4010
RLD	5V7	A1	B6	Relay, armature, 7600Ω	Y1/5945-99-901-0450
L39	5U7	E2	D6	Inductor, r.f., 260mH	5950-99-911-0994





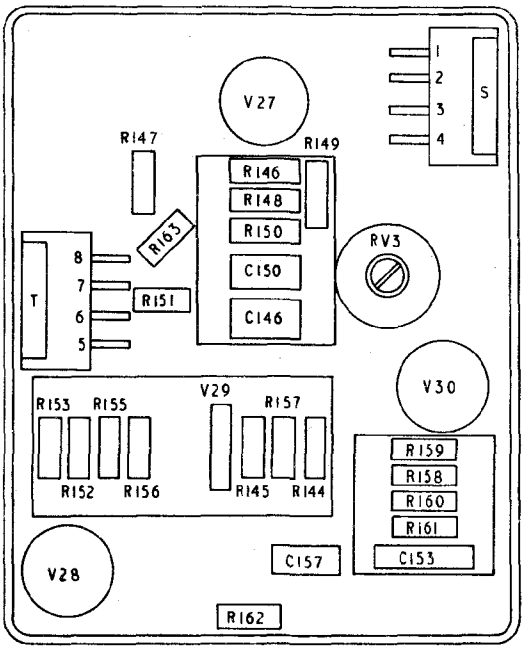


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Fig 2519 - Control, modulator, circuit diagram and layout

Table 2507 - Control, modulator (5820-99-949-0705) - component schedule

Cct ref	Component location: Main cct	Component location: Fig 2519 Cct	Component location: Fig 2519 Layout	Value	Rating	Type and limit ±%		Part No
				RESISTORS				
R141	7B4	B3	C5	270k	1/4W	comp	10	5905-99-022-3092
R142	7C4	B2	C5	3.3M	1/4W	comp	10	5905-99-022-3227
R143	7C4	C3	C5	220k	1/4W	comp	10	5905-99-022-3080
R144	7D5	F3	F7	2.2M	1/4W	comp	10	5905-99-022-3206
R145	7D5	C3	F7	100k	1/4W	comp	10	5905-99-022-3038
R146	7C2	C1	F6	47k	1/2W	comp	10	5905-99-022-2216
R147	7C5	C3	E5	10k	1/4W	comp	10	5905-99-022-2131
R148	7D4	C3	F6	100k	1/4W	comp	10	5905-99-022-3038
R149	7D2	D1	F5	22k	1/4W	comp	10	5905-99-022-2173
R150	7D3	D1	F6	100k	1/4W	comp	10	5905-99-022-3038
R151	7D9	D3	E6	10M	1/4W	comp	10	5905-99-022-3290
R152	7D8	D2	E7	100k	1/4W	comp	10	5905-99-022-3038
R153	7D6	E1	E7	680k	1/4W	comp	10	5905-99-022-3143
R155	7D6	E1	E7	100k	1/4W	comp	10	5905-99-022-3038
R156	7C6	F1	E7	100k	1/2W	comp	10	5905-99-022-3039
R157	7C9	F3	F7	27k	1/4W	comp	10	5905-99-022-2185
R158	7E2	F1	G7	330k	1/4W	comp	10	5905-99-022-3101
R159	7E5	G3	G7	680	1/4W	comp	10	5905-99-022-1215
R160	7E2	G1	G7	47k	1/4W	comp	10	5905-99-022-2215
R161	7E3	G1	G8	100k	1/4W	comp	10	5905-99-022-3038
R162	2C7	B4	F8	8.2	1.1/2W	w.w.	5	5905-99-911-4803
R163	2B6	G4	E6	27	3W	w.w.	5	5905-99-011-3282
RV3	7E4	F2	G6	1M	1/4W	Linear, variable	20	
				CAPACITORS				
C141	7B4	B2	D5	250p	350V	mica	10	5910-99-940-9340
C142	7B4	B2	D5	47p	750V	N750	2	5910-99-011-8313
C143	7C2	C1	B5	0.1	350V	p.m.t.	25	5910-99-011-5506
C144	7D5	D3	B5	0.05	250V	p.m.t.	25	5910-99-011-9825
C145	7D2	D1	B6	1.0	350V	p.m.t.	25	5910-99-011-9838
C146	7D4	D2	F6	0.001	350V	mica	20	5910-99-012-4479
C147	7E7	E3	C8	0.02	350V	p.m.t.	20	5910-99-011-5595
C148	7D7	E2	C8	0.02	350V	p.m.t.	20	5910-99-011-5595
C149	7D5	F3	C7	1.0	150V	p.m.t.	25	5910-99-011-9836
C150	7E4	E2	F6	0.001	350V	mica	20	5910-99-012-4479
C151	7E2	F1	B7	0.02	350V	p.m.t.	25	5910-99-011-5595
C152	7E2	G1	B8	0.1	350V	p.m.t.	25	5910-99-011-5506
C153	7F3	G2	C8	0.01	350V	p.m.t.	25	5910-99-011-5594
C154	7E5	G3	B6	0.05	250V	p.m.t.	25	5910-99-011-9825
C155	7C4	C2	D5	0.01	350V	p.m.t.	25	5910-99-011-5625
C156	7B2	B1	C6	1.0	150V	p.m.t.	25	5910-99-011-9836
C157	7E4	G2	F8	470p	750V	mica	10	5910-99-012-3949

Cct ref	Component location: Main cct	Component location: Fig 2519 Cct	Component location: Fig 2519 Layout	Description	Part No
				MISCELLANEOUS	
V27	7D4	C2	C5	Valve, thermionic, CV 4015	5960-99-000-4015
V28	7D8	E3	D8	Valve, thermionic, CV 4010	5960-99-000-4010
V29	7C8	F3	F7	Valve, thermionic, CV 4504	5960-99-000-4504
V30	7E4	G3	B7	Valve, thermionic, CV 4010	5960-99-000-4010
T4	7B4	B2	D5	Transformer, a.f., input, 16.7:1	5950-99-949-0617
T5	7D7	E2	C8	Transformer, a.f., input, 1.9:1	5950-99-911-0989

Table 2508 - Amplifier, a.f., (5820-99-949-0768) - component schedule

Cct ref	Component location: Main cct	Component location: Fig 2520 Cct	Component location: Fig 2520 Layout	Value	Rating	Type and limit ±%		Part No
				RESISTORS				
R131	2C1	C1	F7	470k	1/4W	comp	10	5905-99-022-3122
R132	2C3	C3	F6	120k	1/4W	comp	10	5905-99-022-3050
R133	2D1	D1	F7	220k	1/4W	comp	10	5905-99-022-3080
R134	2D3	D3	F6	1k	1/4W	comp	10	5905-99-022-2005
R135	2D2	D2	E7	27Ck	1/4W	comp	10	5905-99-022-3092
R136	2E1	E1	E7	22k	1/4W	comp	10	5905-99-022-2173
R137	2E3	E3	E6	56Ck	1/4W	comp	10	5905-99-022-3134
R138	2F3	F3	E6	270	1/4W	comp	10	5905-99-022-1164
R139	2C2	C2	F6	100k	1/4W	comp	10	5905-99-022-3038
				CAPACITORS				
C131	2C1	C1	B7	0.1	350V	p.m.t.	25	5910-99-011-5506
C132	2D2	D2	F6	0.01	2C0V	p.m.t.	25	5910-99-011-5594
C133	2E1	E1	C6	0.1	350V	p.m.t.	25	5910-99-011-5506
C134	2C3	C3	F6	470p	750V	mica	10	5910-99-012-3949
C135	2C3	C3	F7	470p	750V	mica	10	5910-99-012-3949

Cct ref	Component location: Main cct	Component location: Fig 2520 Cct	Component location: Fig 2520 Layout	Description	Part No
			MISCELLANEOUS		
V25	2D3	D3	B6	Valve, electronic, CV 4010	5960-99-000-4010
V26	2E3	E3	C6	Valve, electronic, CV 4010	5960-99-000-4010
T2	2B2	B2	B5	Transformer, a.f., input	5950-99-911-0858
T3	2E1	E1	B8	Transformer, a.f.	5950-99-911-0868

Table 2509 - Front panel - component schedule

Cct ref	Component location: Main cct	Component location: Layout Fig 2521	Value	Rating	Type and limit ±%		Part No
			RESISTORS				
R181	5BB8	E6	1.5	3/4W	w.w.	10	5905-99-024-5003
R182	7N1	D9	4.7k	3W	w.w.	5	5905-99-011-3336
RV4	5BB10	C6	22Ck	1/4W	Linear, var	10	5905-99-940-9740

Cct ref	Component location: Main cct	Component location: Layout Fig 2521	Description	Part No
		MISCELLANEOUS		
M1	7M7	D7	Ammeter, moving coil, 250-0-250μA	6625-99-949-0620
ILP1	5BB8	D8	Lamp, 12V, 2.2W, MES, clear	Y3/6240-99-995-1219
ILP2	5BB8	E6	Lamp, 12V, 2.2W, MES, clear	Y3/6240-99-995-1219
SA		D6	Switch, 8-pole, 4-position, 4-wafer	5930-99-940-9625
SB		D9	Switch, 2-pole, 2-position, 1-wafer	5930-99-940-9651
SC		B6	Switch, 1-pole, 2-position, 1-wafer	5930-99-940-9653

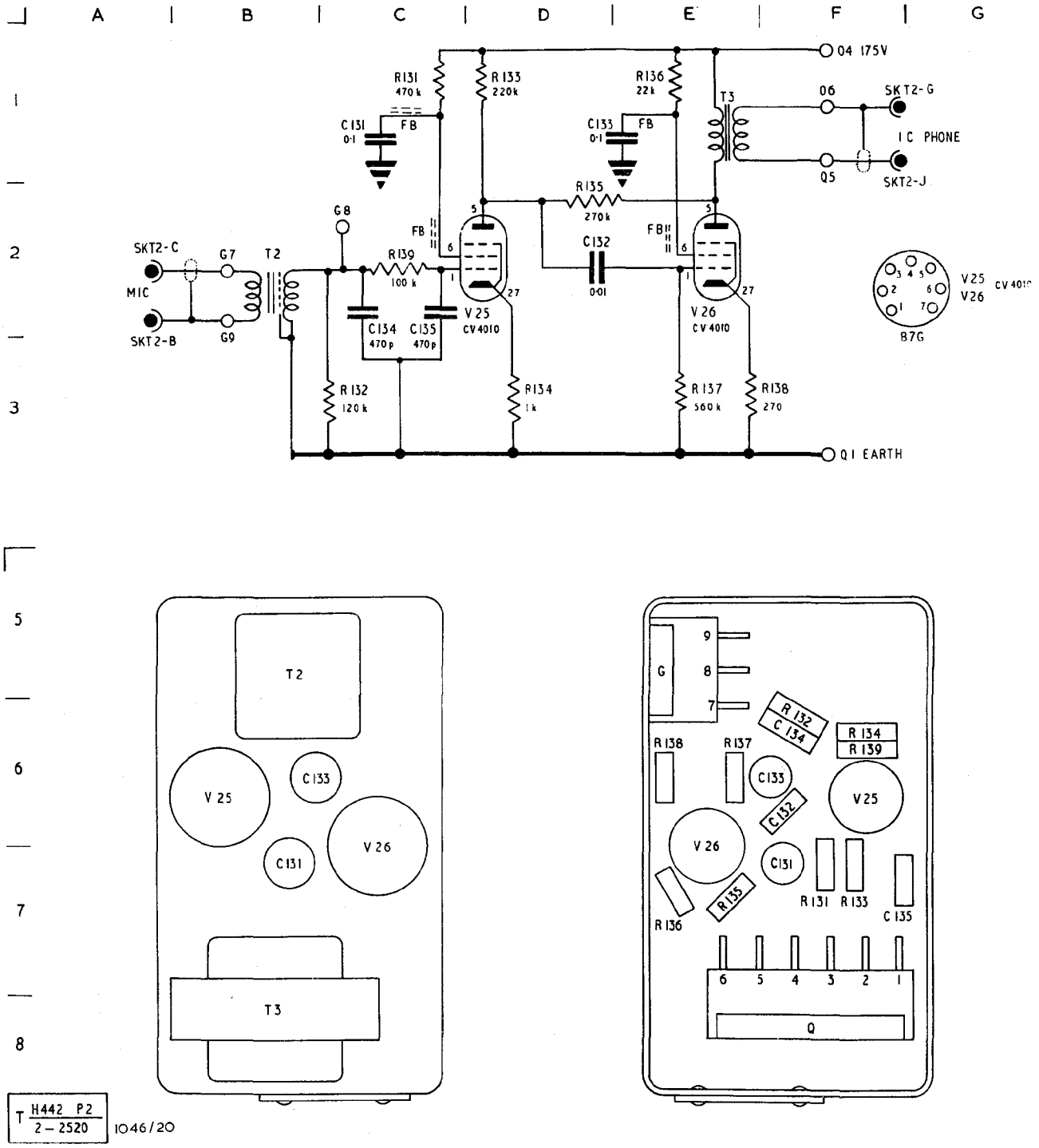

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Fig 2520 - Amplifier, a.f., circuit diagram and layout

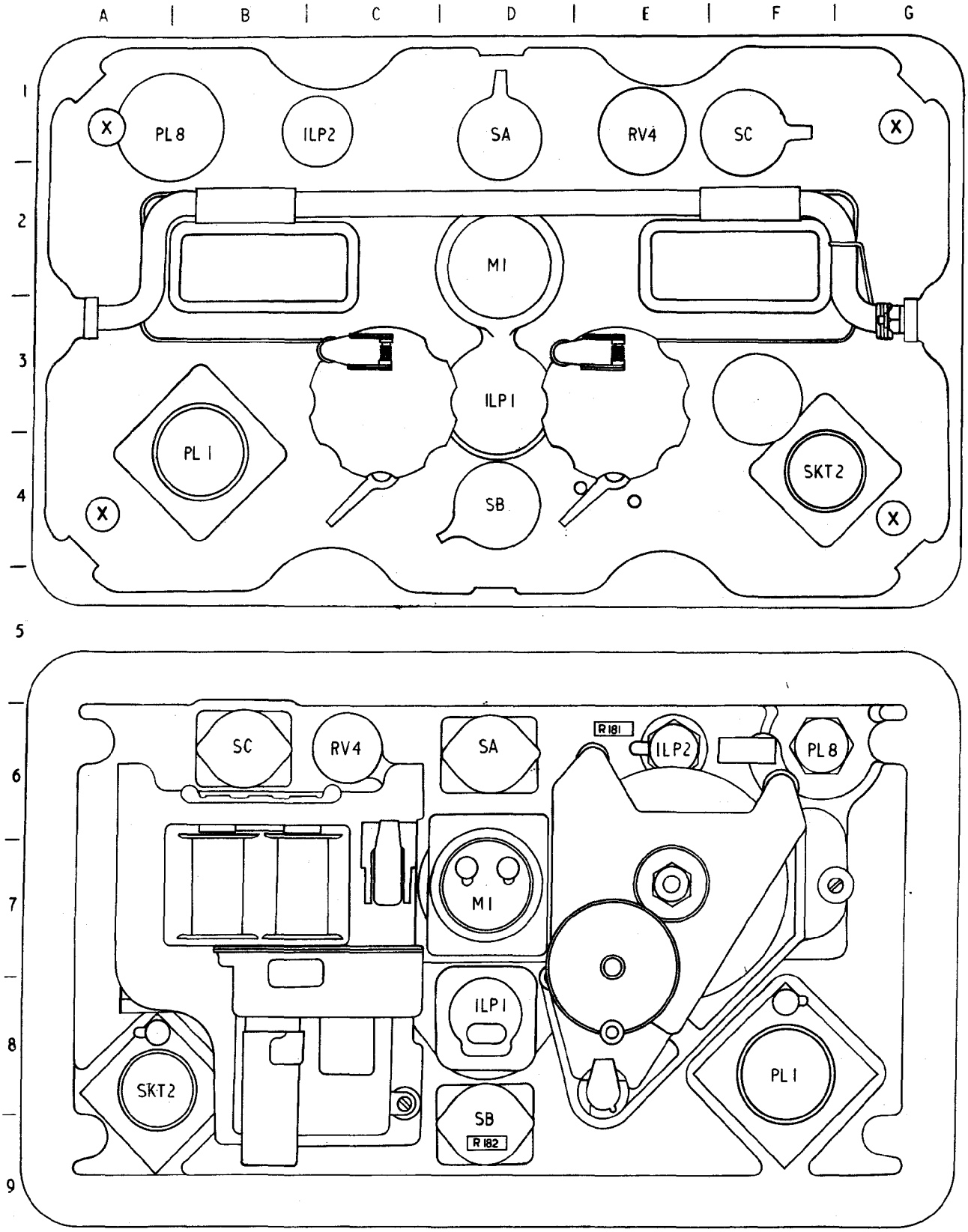

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Fig 2521 - Front panel, layout

Note: These Pages 1035 and 1036, Issue 3, supersede Pages 1035 and 1036, Issue 2, dated 9 Mar 62. Fig 2523 has been amended.

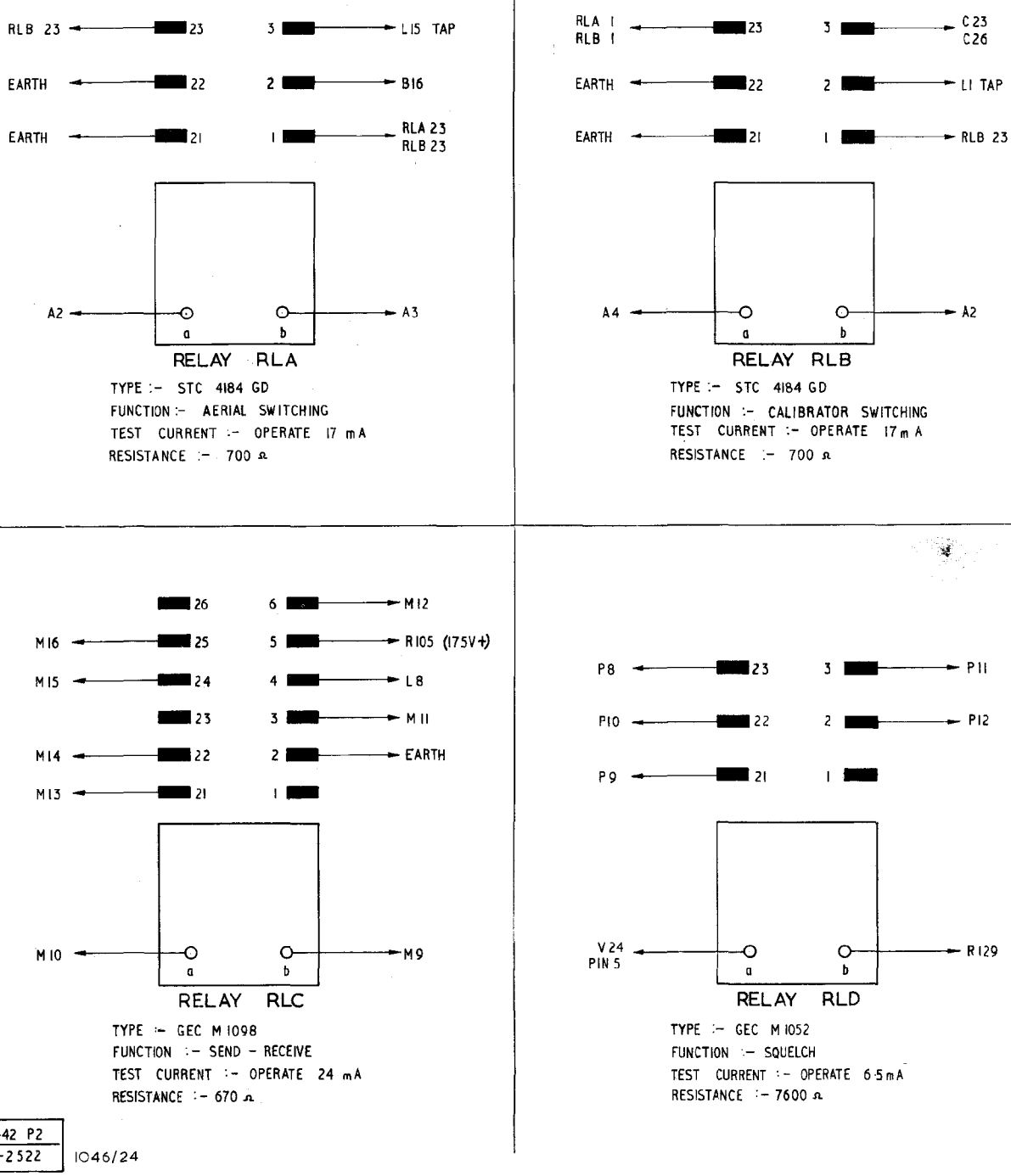

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Fig 2522 - Relay data

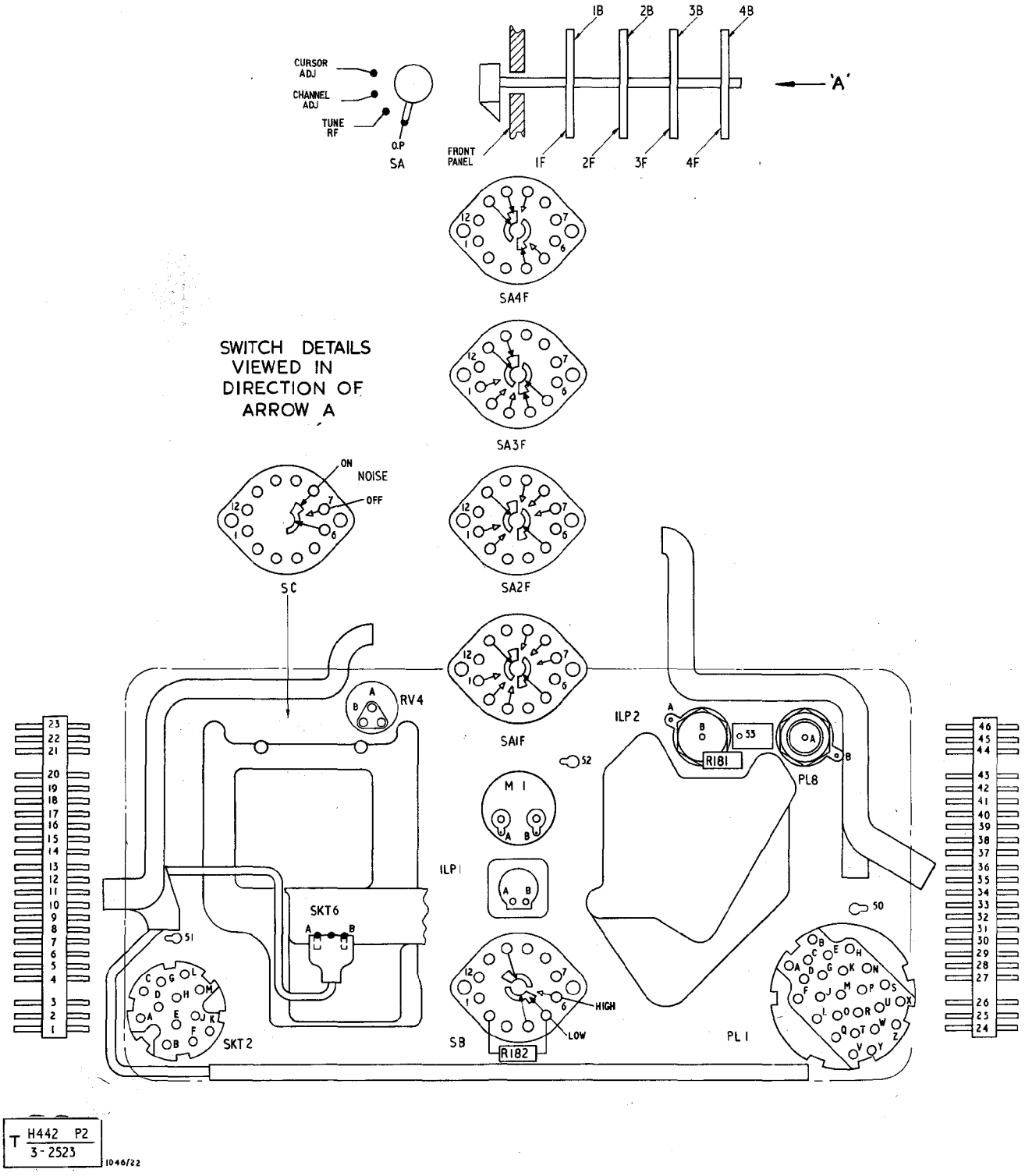


Fig 2523 - Front panel, wiring diagram

Connection		Colour		Wire
From	To	Main	Marker	
PL1-A	SB1B-6	S	-	Z
B	SA2F-5	R	W	Z
C	SKT2-K	G	-	Z
D	35	BN	G	Z
E	SB1F-10	BN	B	Z
F	42	BN	W	Z
F	PL1-L	BN	-	Z
G	44	BN	R	Z
H	50	-	-	V
J	46	W	-	Z
K	No connection	-	-	-
L	40	BN	W	Z
L	PL1-Q	BN	-	Z
M	38	BN	V	Z
N	PL1-H	-	-	V
O	No connection	-	-	-
P	No connection	-	-	-
Q	39	BN	W	Z
Q	PL1-V	BN	-	Z
R	SA1F-11	S	BN	Z
S	PL1-N	-	-	V
T	No connection	-	-	-
U	No connection	-	-	-
V	13	BN	W	Z
W	37	BN	S	Z
X	14	BN	-	Z
Y	15	BN/G	G	Z
Z	41	BN	BK	Z
SKT2-A	1	BK	G	Y
B	2	Braiding of SKT2-A		X
C	4	BK	B	Y
D	SA4F-4	G	W	Z
E	3	S	G	Z
F	43	B	BN	Z
G	10	Braiding of SKT2-M		X
H	8	S	W	Z
J	6	BK	W	Y
K	PL1-C	G	-	Z
L	22	R	-	Z
M	9	BK	S	Y
SKT6-A	13	BN	W	Z
B	16	R	W	Z
clip	51	BK	-	Z
ILP1-A	SA1F-9	B	-	Z
B	M1-B	-	-	U
ILP2-A	52	BK	-	Z
B	R181	-	-	-
R181	53	Direct	-	-
M1-A	SA3F-5	O	-	Z
B	52	-	-	U
RV4-A	SC1F-6	BK	-	Z
A	SA4F-9	BK	-	Z
B	SA2F-8	-	-	U

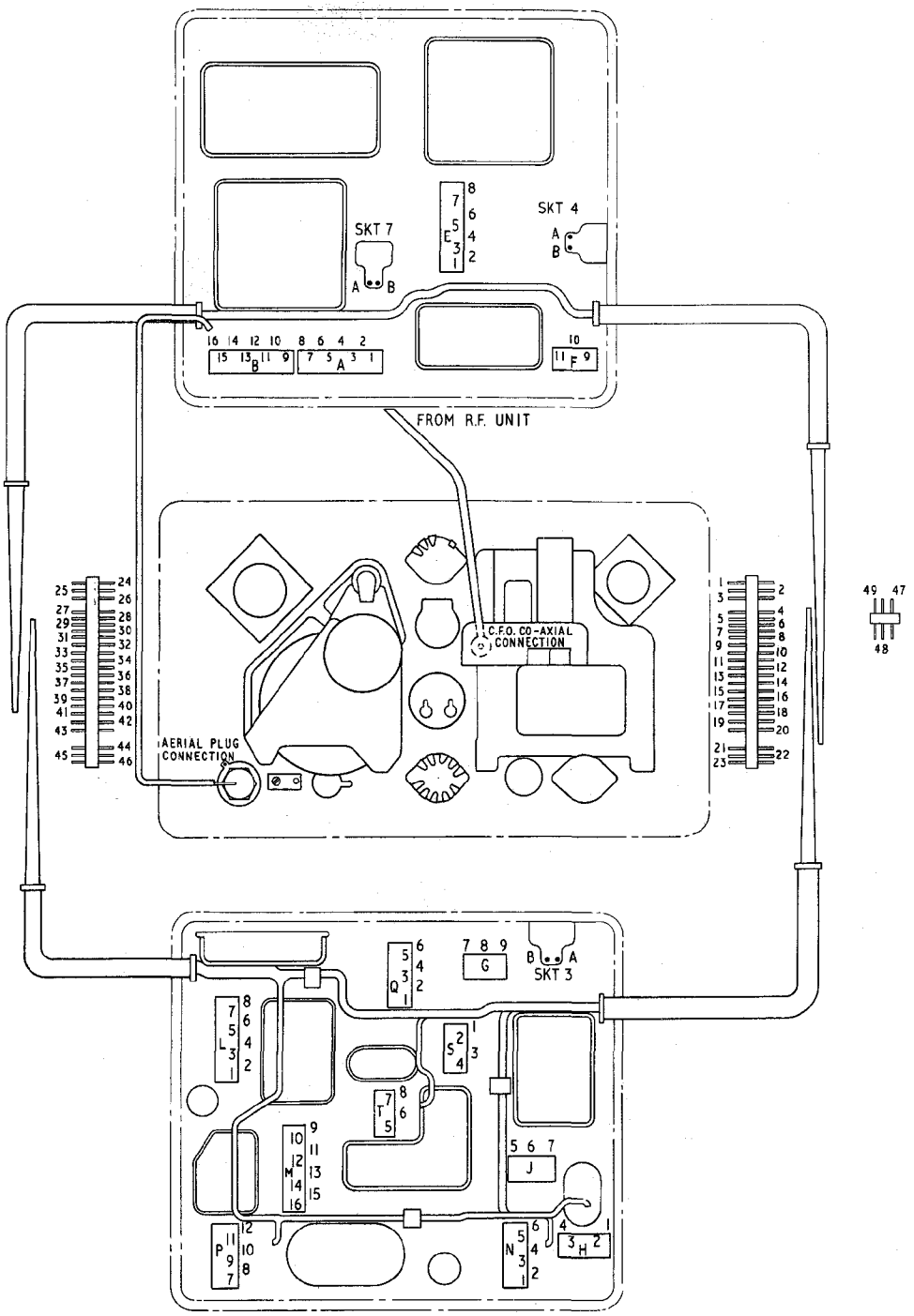
Table 2510 - Front panel wiring table

Connection		Colour		Wire
From	To	Main	Marker	
R182	SB1B-2	-	-	-
R182	SB1B-5	-	-	-
1	SKT2-A	BK	G	Y
2	SKT2-B	Braiding of 1		X
3	SKT2-E	S	G	Z
4	SKT2-C	BK	B	Y
5	-	Braiding of 4		X
6	SKT2-J	BK	W	Y
7	-	Braiding of 6		X
8	SKT2-H	S	W	Z
9	SKT2-M	BK	S	Y
10	SKT2-G	Braiding of 9		X
11	SA3F-1	BK	-	Y
12	-	Braiding of 11		X
13	SKT6-A	BN	W	Z
13	PL1-V	BN	W	Z
14	PL1-X	BN	-	Z
15	PL1-Y	BN/G	G	Z
16	SKT6-B	R	W	Z
16	SA2F-5	R	W	Z
17	SC1F-6	BK	-	Z
18	-	Braiding of 19		X
19	SA2F-9	BK	R	Y
20	-	Braiding of 21		X
21	SA3F-3	BK	O	Y
22	SKT2-L	R	-	Z
23	No connection	-	-	-
24	53	BN	-	Z
25	SA1F-3	BN	O	Z
26	No connection	-	-	-
27	SA2F-7	P	-	Z
28	SA2F-2	R	G	Z
29	SA2F-1	R	V	Z
30	SA3F-11	R	O	Z
31	SB1B-2	R	BK	Z
32	SA4F-11	G	BN	Z
33	SA4F-5	G	-	Z
34	SC1F-7	O	BK	Z
35	PL1-D	BN	G	Z
36	SB1B-12	BN	B	Z
37	PL1-W	BN	S	Z
38	PL1-M	BN	V	Z
39	PL1-Q	BN	W	Z
40	PL1-L	BN	W	Z
41	PL1-Z	BN	BK	Z
42	PL1-F	BN	W	Z
43	SKT2-F	B	BN	Z
44	PL1-G	BN	R	Z
45	SA1F-11	S	BN	Z
46	PL1-J	W	-	Z
50	PL1-H	-	-	V
51	SKT6-clip	BK	-	Z

Connection		Colour		Wire
From	To	Main	Marker	
52	SA1F-5	-	-	U
52	M1-B	-	-	U
52	ILP2-A	BK	-	Z
53	24	BN	-	Z
53	R181	Direct	-	-
SA1F-1	SA1F-2	-	-	U
SA1F-2	SA1F-3	-	-	U
SA1F-3	25	BN	O	Z
SA1F-5	SA2F-11	BK	-	Z
SA1F-5	52	-	-	U
SA1F-7	SA1F-8	-	-	U
SA1F-8	SA1F-9	-	-	U
SA1F-9	ILP1-A	B	-	Z
SA1F-11	45	S	BN	Z
SA1F-11	PL1-R	S	BN	Z
SA2F-1	29	R	V	Z
SA2F-2	28	R	G	Z
SA2F-5	16	R	W	Z
SA2F-5	PL1-B	R	W	Z
SA2F-7	SA2F-8	-	-	U
SA2F-7	27	P	-	Z
SA2F-8	RV4-B	P	-	Z
SA2F-9	19	BK	R	Y
SA2F-11	SA1F-5	BK	-	Z
SA2F-11	SA4F-9	BK	-	Z
SA3F-1	SA3F-2	-	-	U
SA3F-1	11	BK	-	Y
SA3F-2	SA3F-1	-	-	U
SA3F-3	21	BK	O	Y
SA3F-5	M1-A	O	-	Z
SA3F-10	SB1B-4	O	-	Z
SA3F-11	30	R	O	Z
SA4F-4	SA4F-10	G	-	Z
SA4F-4	SKT2-D	G	W	Z
SA4F-5	33	G	-	Z
SA4F-9	RV4-A	BK	-	Z
SA4F-9	SA2F-11	BK	-	Z
SA4F-10	SA4F-4	G	-	Z
SA4F-11	32	G	BN	Z
SB1F-10	PL1-E	BN	B	Z
SB1F-12	36	BN	B	Z
SB1B-2	R182	Direct	-	-
SB1B-2	31	R	BK	Z
SB1B-4	SA3F-10	O	-	Z
SB1B-5	R182	Direct	-	-
SB1B-6	PL1-A	S	-	Z
SC1F-6	RV4-A	BK	-	Z
SC1F-6	17	BK	-	Z
SC1F-7	34	O	BK	Z
PL8-A	B16	-	-	W
PL8-B	50	-	-	V
PL8-B	-	Braiding of PL8-A		-

For abbreviation code see Table 2511

Note: These Pages 1037 and 1038, Issue 3, supersede Pages 1037 and 1038, Issue 2, dated 9 Mar 62. Table 2510 has been amended.



T H442 P2 3-2524 2523/AT

Fig 2524 - Wiring trays, wiring diagram

Table 2511 - Wiring trays

Terminals		Colour		Wire
From	To	Main	Marker	
A1	E7	R	W	Z
A2	35	BN	G	Z
A3	33	G	-	Z
A4	25	BN	O	Z
A5	42	BN	W	Z
A6	41	BN	BK	Z
A6	F9	BN	BK	Z
A7	38	BN	V	Z
A8	E2	BK	-	Z
B9	-	-	-	-
B10	28	R	G	Z
B11	30	R	O	Z
B12	31	R	BK	Z
B12	E6	R	BK	Z
B13	29	R	V	Z
B14	E4	-	O	Y
B15	-	Braiding of B14		X
B15	E2	-	-	X
B15	Chassis	-	1/8 in.	Braid
B16	PL8-A	-	-	W
SKT7-A	SKT4-A	S	-	Z*
SKT7-B	SKT4-B	BK	-	Z*
E1	11	-	BK	Y
E2	A8	BK	-	Z
E2	20	Braiding of E4		X
E2	12	Braiding of E1		X
E2	17	BK	-	Z
E2	B15	Braiding of E4		X
E2	18	Braiding of E3		X
E3	19	-	R	Y
E4	B14	-	O	Y
E4	21	-	O	Y
E5	39	BN	W	Z
E6	B12	R	BK	Z
E7	16	R	W	Z
E7	A1	R	W	Z
E8	47	W	-	Z
F9	A6	BN	BK	Z
F10	49	Braiding of F11		X
F11	48	-	S	Y
G7	5	Braiding of G9		X
G8	-	-	-	-
G9	4	-	B	Y
SKT4-A	SKT7-A	S	-	Z*
SKT4-B	SKT7-B	BK	-	Z*
H1	8	S	W	Z
H2	L4	G	W	Z
H3	N5	G	BK	Z
H4	11	S	BK	Z

Terminals		Colour		Wire
From	To	Main	Marker	
J5	N4	BK	-	Z
J5	L3	BK	-	Z
J6	13	BN	W	Z
J7	N3	R	W	Z
J7	L6	R	W	Z
SKT3-A	48	-	-	X
SKT3-B	49	Braiding of SKT3-A		Y
L1	9	-	S	Y
L2	10	Braiding of L1		X
L3	J5	BK	-	Z
L3	T6	BK	-	Z
L4	H2	G	W	Z
L5	P9	O	W	Z
L6	Q4	R	W	Z
L6	J7	R	W	Z
L7	N2	BN	W	Z
L7	40	BN	W	Z
L8	22	R	-	Z
M9	35	BN	G	Z
M10	32	G	BN	Z
M11	36	BN	B	Z
M12	T5	R	BK	Z
M12	31	R	BK	Z
M13	3	S	G	Z
M14	P8	S	V	Z
M15	44	BN	R	Z
M16	43	B	BN	Z
N1	-	-	-	-
N2	L7	BN	W	Z
N3	J7	R	W	Z
N4	J5	BK	-	Z
N5	H3	G	BK	Z
N6	-	-	-	-
P7	27	P	-	Z
P8	M14	S	V	Z
P9	L5	O	W	Z
P10	34	O	BK	Z
P11	24	BN	-	Z
P12	45	S	BN	Z
Q1	-	-	-	-
Q2	37	BN	S	Z
Q3	-	-	-	-
Q4	16	R	W	Z
Q4	L6	R	W	Z
Q5	6	-	W	Y
Q6	7	Braiding of Q5		X
S1	15	BN/G	G	Z
S2	14	BN	-	Z
S3	18	Braiding of S4		X

trays, wiring table

Terminals		Colour		Wire
From	To	Main	Marker	
S4	19	-	R	Y
T5	M12	R	BK	Z
T6	46	W	-	Z
T6	47	W	-	Z
T7	2	Braiding of T8		X
T8	1	-	G	Y
1	T8	-	G	Y
2	T7	Braiding of 1		X
2	5	BK	-	Z
3	M13	S	G	Z
4	G9	-	B	Y
5	G7	Braiding of 4		X
6	Q5	-	W	Y
7	Q6	Braiding of 6		X
7	10	BK	-	Z
8	H1	S	W	Z
9	L1	-	S	Y
10	L2	Braiding of 9		X
11	E1	-	BK	Y
11	H4	S	BK	Z
12	E2	Braiding of 11		X
13	J6	BN	W	Z
14	S2	BN	-	Z
15	S1	BN/G	G	Z
16	Q4	R	W	Z
16	E7	R	W	Z
17	E2	BK	-	Z
18	E2	Braiding of 19		X
18	S3	Braiding of 19		X
19	S4	-	R	Y
19	E3	-	R	Y
20	E2	Braiding of 21		X
21	E4	-	O	Y
22	L8	R	-	Z
23	-	-	-	-
24	P11	BN	-	Z
25	A4	BN	O	Z
26	-	-	-	-
27	P7	P	-	Z
28	B10	R	G	Z
29	B13	R	V	Z
30	B11	R	O	Z
31	B12	R	BK	Z
31	M12	R	BK	Z
32	M10	G	BN	Z
33	A3	G	-	Z
34	P10	O	BK	Z
35	A2	BN	G	Z
35	M9	BN	G	Z

Terminals		Colour		Wire
From	To	Main	Marker	
36	M11	BN	B	Z
37	Q2	BN	S	Z
38	A7	BN	V	Z
39	E5	BN	W	Z
40	L7	BN	W	Z
41	A6	BN	BK	Z
42	A5	BN	W	Z
43	M16	B	BN	Z
44	M15	BN	R	Z
45	P12	S	BN	Z
46	T6	W	-	Z
47	T6	W	-	Z
47	E8	W	-	Z
48	F11	-	S	Y
48	SKT3-A	-	S	Y
49	T6	Braiding of 48		X
49	SKT3-B	Braiding of 48		X

*Twisted together 3 t.p.i.

Colour abbreviations	
R = Red	BN = Brown
W = White	BK = Black
G = Green	V = Violet
O = Orange	S = Slate
B = Blue	P = Pink

Wire code	
U	22 S.W.G. tinned copper
V	18 S.W.G. tinned copper
W	Uniradio 43
X	Braiding of Y
Y	7/0.0076 T.C. wire, P.V.C. ins., screened
Z	7/0.0076 Swbd wire

Note: These Pages 1039 and 1040, Issue 3, supersede Pages 1039 and 1040, Issue 2, dated 9 Mar 62. Table 2511 has been amended.

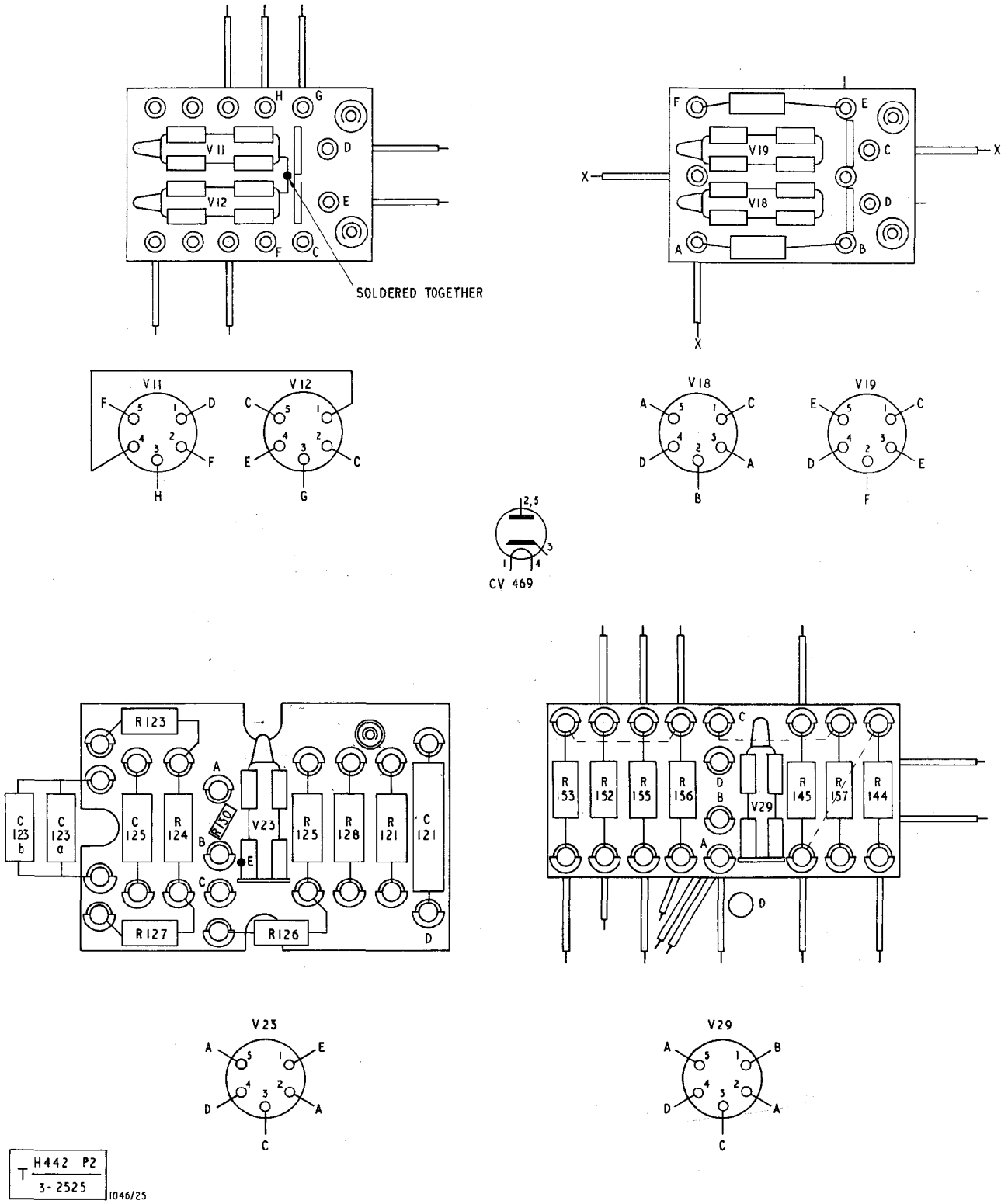


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Fig 2525 - Wiring of diode cans

Table 2512 - 'A' bracket voltages

Terminal No	Voltage			Remarks
	Receive	Send L.P.	Send H.P.	
8	-	-4	-4	D.C. measured on 120V range
13	6.8	6.8	6.8	A.C.
14) 15)	7	7	7	A.C. across 14 and 15
16	180	175	175	D.C.
22	180	-	-	
25	22	22	22	D.C.
27	~~13~~ 26	~~13~~ 26	~~13~~ 26	D.C. RV4. FULLY CLOCKWISE.
30	-	55	350	D.C.
31	-	175	175	D.C.
32	22	-	-	D.C.
33	22	-	-	D.C.
34	8	-	-	D.C. 120V range
35	22	22	22	D.C.
36	23	-	-	D.C. only when set switched to high power (receive)
37	7	7	7	A.C.
38	13	13	13	A.C.
39	7	7	7	A.C.
40	7	7	7	A.C.
41	7	7	7	A.C.
42	7	7	7	A.C.
43	24	-	-	D.C.
44	24	24	24	D.C.
46	12.5	12.5	12.5	D.C.

All measurements made with Instrument testing Avometer, universal, 40-range

Table 2513 - Voltage and current table

Terminal No	Receive		Send L.P.		Send H.P.		Remarks
	Voltage (V)	Current (A)	Voltage (V)	Current (A)	Voltage (V)	Current (A)	
A1	180	0.01	175	0.009	175	0.009	D.C.
A2	22	–	22	0.029	22	0.029	D.C.
A3	22	–	–	0.029	–	0.029	D.C.
A4	22	–	22	–	22	–	D.C.
A5	6.7	0.8	6.7	0.8	6.7	0.8	A.C.
A6	6.7	0.76	6.7	0.76	6.7	0.76	A.C.
A7	12.5	0.53	12.5	0.53	12.5	0.53	A.C.
B11	–	–	55	0.15	350	0.12	D.C.
B12	–	–	175	0.04	175	0.04	D.C.
E5	6.8	0.54	6.8	0.54	6.8	0.54	A.C.
E6	–	–	175	0.0063	175	0.0063	D.C.
E7	180	0.015	175	0.012	175	0.012	D.C.
E8	12.5	0.15	12.5	0.15	12.5	0.15	D.C.
H1	–	–	-4	–	-4	–	D.C. (120V range)
J6	6.6	1.05	6.6	1.05	6.6	1.05	A.C.
J7	180	0.018	175	0.02	175	0.02	D.C.
L5	8	–	8	–	8	–	D.C. (120V range)
L6	180	0.0095	175	0.08	175	0.065	D.C.
L7	6.7	0.4	6.7	0.4	6.7	0.4	A.C.
L8	180	–	–	–	–	–	
M9	22	0.22	22	0.24	22	0.24	D.C.
M10	22	–	–	0.03	–	0.03	D.C.
M11	22 (on H.P.)	–	–	–	–	0.06	D.C. with switch on H.P. only
M12	–	–	175	0.07	175	0.058	D.C.
M15	24	–	24	–	24	–	D.C.
M16	24	–	–	–	–	–	
N2	6.6	0.6	6.6	0.6	6.6	0.6	A.C.
N3	180	0.005	175	0.0106	175	0.0107	D.C.
P7	~~13~~ 26	0.0006	~~13~~ 26	0.0006	~~13~~ 26	0.0006	D.C. (120V range) 12 V 4 FULLY CLOCKWISE ~~(4V on 1060)~~
P9	8	–	8	–	8	–	D.C. (120V range)
P10	8	–	–	–	–	–	
Q4	180	0.009	175	0.009	175	0.009	
S1) S2)	6.8	0.78	6.8	0.78	6.8	0.78	) A.C. volts) across S1 to S2) Current in S1
T5	–	–	175	0.0065	175	0.0065	D.C.
T6	12.5	0.35	12.5	0.35	12.5	0.35	D.C.

All measurements made with Instrument testing, Avometer, universal 40-range

Table 2514 - Valve testing table

Inter-service type	Commerical equivalent	Selector switch setting	Tester	V_H	V_{g-}	V_A	V_{SG}	Anode selr	Ma/V	Ia (mA)
CV 4010 CV 850*	6AK5	4 1 2 3 6 5 1 0 0 4 1 2 3 6 5 1 0 0 4 1 2 3 6 5 1 0 0	a b c	6 6 6	– 2.3 3.0	100 150 150	100 150 150	– – –	4.0 4.3 4.3	– 7.0 7.0
CV 4058 CV 133*	6C4	6 0 2 3 6 4 1 0 0 6 0 2 3 6 4 1 0 0 6 0 2 3 6 4 1 0 0	a b c	6 6 6	– 8.5 8.5	100 250 250	– – –	– – –	3.0 2.2 2.2	– 10.5 10.5
CV 2243	PSG8	0 4 1 2 3 0 6 5 1 0 4 1 2 3 0 6 5 1 0 4 1 2 3 0 6 5 1	a b c	6 6 6	– 2.0 2.0	200 200 200	125 125 125	– – –	8.0 8.4 8.4	– 14.0 17.0
CV 2220		2 6 5 1 4 4 1 3 0 2 6 5 1 4 4 1 3 0 2 6 5 1 4 4 1 3 0	a b c	12 12 12	– 20 20	100 300 300	100 250 250	– – –	5.0 5.5 6.0	– 50.0 50.0
CV 4064 CV 2209*		4 1 2 3 6 1 5 0 0 4 1 2 3 6 1 5 0 0 4 1 2 3 6 1 5 0 0	a b c	6 6 6	– 4.0 4.0	200 200 200	200 200 200	– – –	3.0 3.5 3.5	– 5.85 5.8
CV 2128 Hexode	ECH81	5 4 1 2 3 7 1 6 4 5 4 1 2 3 7 1 6 4 5 4 1 2 3 7 1 6 4	a b c	6 6 6	– 2.0 2.0	100 250 250	– 100 100	A2 A2 A2	2.3 2.4 2.4	– 6.5 6.5
CV 2128 Triode	ECH81	5 4 1 2 3 7 1 6 4 5 4 1 2 3 7 1 6 4 5 4 1 2 3 7 1 6 4	a b c	6 6 6	– 3.0 1.0	150 100 100	100 – –	A A A1	2.4 2.3 3.4	– 5.0 10.5
CV 4504 CV 469*	EA76	2 8 1 3 8 0 0 0 0 2 8 1 3 8 0 0 0 0 2 8 1 3 8 0 0 0 0	a b c	6 6 6	– – –	– – –	– – –	– – –	– – –	– 5.0 –
CV 4015 CV 131*	9D6	4 1 2 3 6 1 5 0 0 4 1 2 3 6 1 5 0 0 4 1 2 3 6 1 5 0 0	a b c	6 6 6	– 2.5 2.5	100 250 250	100 200 200	– – –	2.5 2.5 2.5	– 8.0 8.0

Notes: 'a' refer to Tester, valve, Avo, No 1, Mk 1 or 2
'b' refer to Tester, valve, Avo, No 3
'c' refer to Tester, valve, CT 160

* These are non ruggedised versions used in earlier sets

Table 2515 - Test equipment schedule

Preferred instrument		Suitable alternative	
Part No	Designation	Part No	Designation
ZD 02674	Signal generator No 12	ZD 00391	Signal generator No 1, Mk 3
ZD 04302	Signal generator No 18	WD 3941	Signal generator No 13
NIV	Multi-range testmeter (20,000Ω/V)	ZD 00252	Instrument, testing, Avometer, 8S, 28-range
	Oscilloscope CT436	Z4/10S/831	Oscilloscope type 13A
ZD 00661	Wattmeter, absorption, a.f., No 1	ZD 0063	Meter, output power, No 3, Mk 2
Z4/6625-99-949-0593	Calibrator, crystal, set	WY 0241	Wavemeter, standard, No 2
	*Test set, type AM193		-
	*Test set, type AM330		-
ZD 00747	Wattmeter, absorption, h.f., No 2		-
ZD 00657	Voltmeter, valve, No 3	ZD 00617	Instrument, testing, electronic, multi-range, No 1
ZD 00198	Oscillator, b.f., No 8	WY 2562	Oscillator, b.f., No 5
ZD 00193	Test set, deviation, f.m., No 2		-
NIV	Frequency meter, r.f., portable (under development) XT437	ZC 1411	Frequency meter SCR 211
Z4/6625-99-942-4825	Ovens, drying, Tels, 240V, a.c.		-
ZD 02172	Tester, valve, CT160	ZD 00286	Tester, valve, Avo, No 3 or No 1, Mk 2
WC 53340	Apparatus, seal testing		-
NIV	Multi-range testmeter (1,000Ω/V)	ZD 00207	Instrument, testing, Avometer, universal, 50-range, No 2
ZD 03985	Kits, testing, vehicle and manpack radio sets		Local manufacture, see Tels H 444 Part 1

*Used in conjunction with Wavemeter, standard, No 2 in base workshops for crystal testing

Table 2516 - Specification tests

Notes

1. The conditions of test are as specified in Tels H 444.

2. The tests quoted are those considered necessary to check the serviceability of a set. They do not include those tests included in the original specification which are purely of design interest. It will be noted that for Field inspection (Tels H 448) these figures have been slightly relaxed.

Receiver

3. Quieting:-

Input signal: 1.25μV, quieting 10dB minimum.
Test frequencies: 38, 46 and 58Mc/s.

4. Bandwidth:-

Input voltage		Bandwidth	Test frequency
Initial	1μV	-	38Mc/s
3dB*	1.4μV	58-72kc/s	
60dB	1.0mV	250kc/s max	

*Asymmetry at 3dB, 4kc/s max

5. A.F. output and setting of internal gain control RV1:-

Test signal: 46Mc/s, modulated 1600c/s, deviation 15kc/s, 4μV.
A.F. output: 150 ±25mW a.f. Load 50Ω.
Setting RV1: Adjust until a.f. output is 150mW.

6. Setting of internal squelch control RV2:-

Set tuned to 46Mc/s.
Front panel control RV4 rotated two thirds of clockwise travel.
Setting RV2: Adjust until signal lamp ILP2 just lights.

7. Hum:-

20μW max. Load 150Ω.

Transmitter

8. R.F. output:-

Test frequencies: 36, 44, 46, 48, 60Mc/s

Switch SB	Dummy load	Output
High	70Ω	15W min
Low	70Ω	4-7.2V⁄

⁄Measured on valve voltmeter connected across load

Table 2516 - (cont)

9. H.T. current on high power send:-

R.F. watts	Current from 350V supply	
15	130mA	Note for power other than these values, the maximum current shall be proportional to those quoted
22	150mA max	

10. Hum:-

60μW max. Load 150Ω.

11. Deviation:-

Microphone input		Signal frequency	Deviation
Voltage	Frequency		
10mV	1000c/s	46Mc/s	4.5 ±0.5kc/s ϕ
200mV	1000c/s	46Mc/s	Not more than 50% increase on that for 10mV
200mV	4000c/s	58Mc/s	18kc/s max
ϕAdjust RV3 for this figure			

12. Automatic frequency control:-

Signal frequency	Detune CHANNEL by	2nd i.f. change
58Mc/s	-400kc/s	+10kc/s max
58Mc/s	+400kc/s	-10kc/s max
38Mc/s	-250kc/s	+7kc/s max
38Mc/s	+250kc/s	-7kc/s max

Intercomm amplifier

13. Stage gain and power output:-

Input voltage: 40-100mV, 1000c/s.
Output power: 250mW min. Load 30Ω.

14. Call test:-

Output power: 200mW min. Load 30Ω.
Frequency: 500-2000c/s.

Sealing test

15. Pressure: 5 lb/sq. in.
Leakage rate: 30 cc/hr.
Time constant: 150 hr.

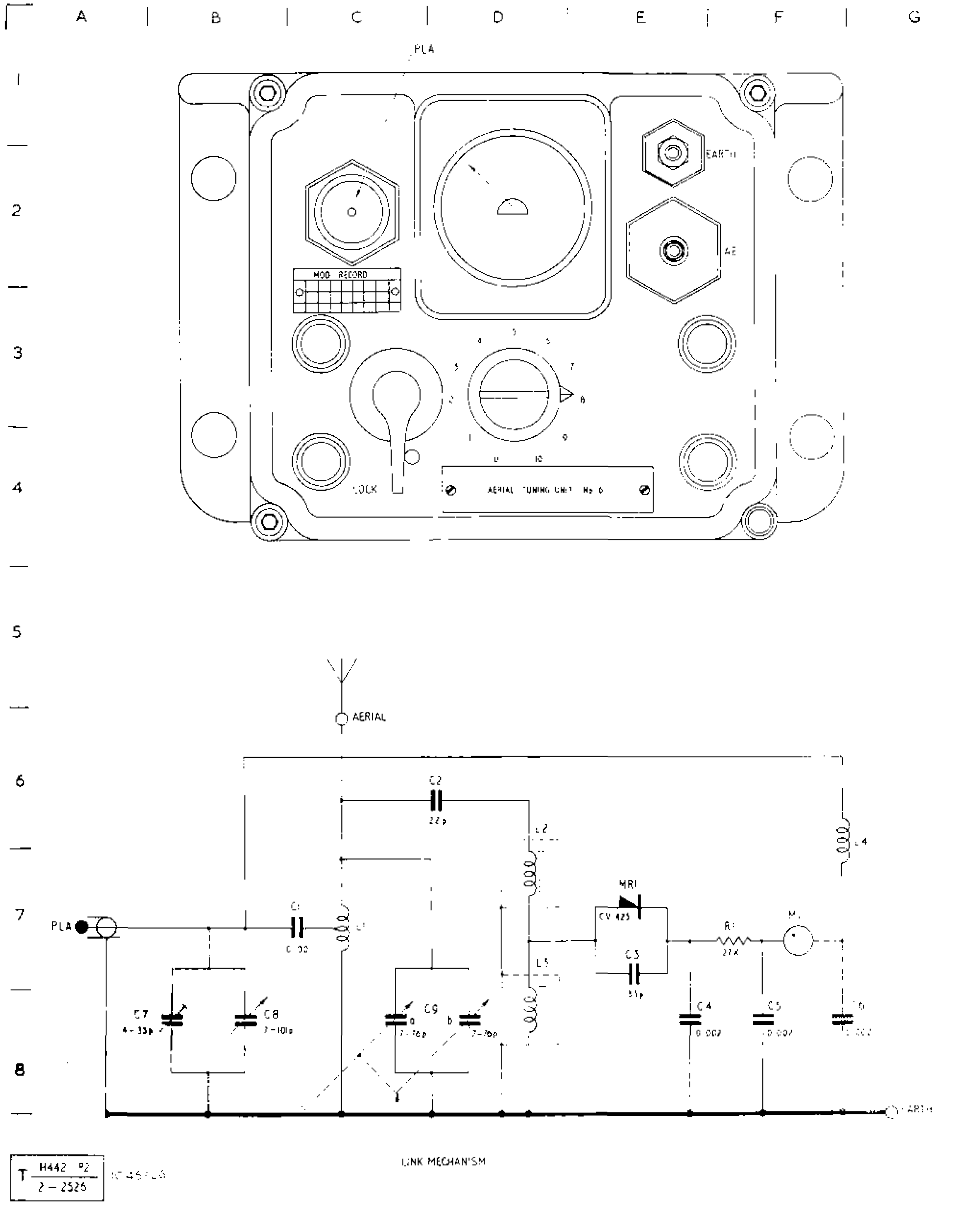
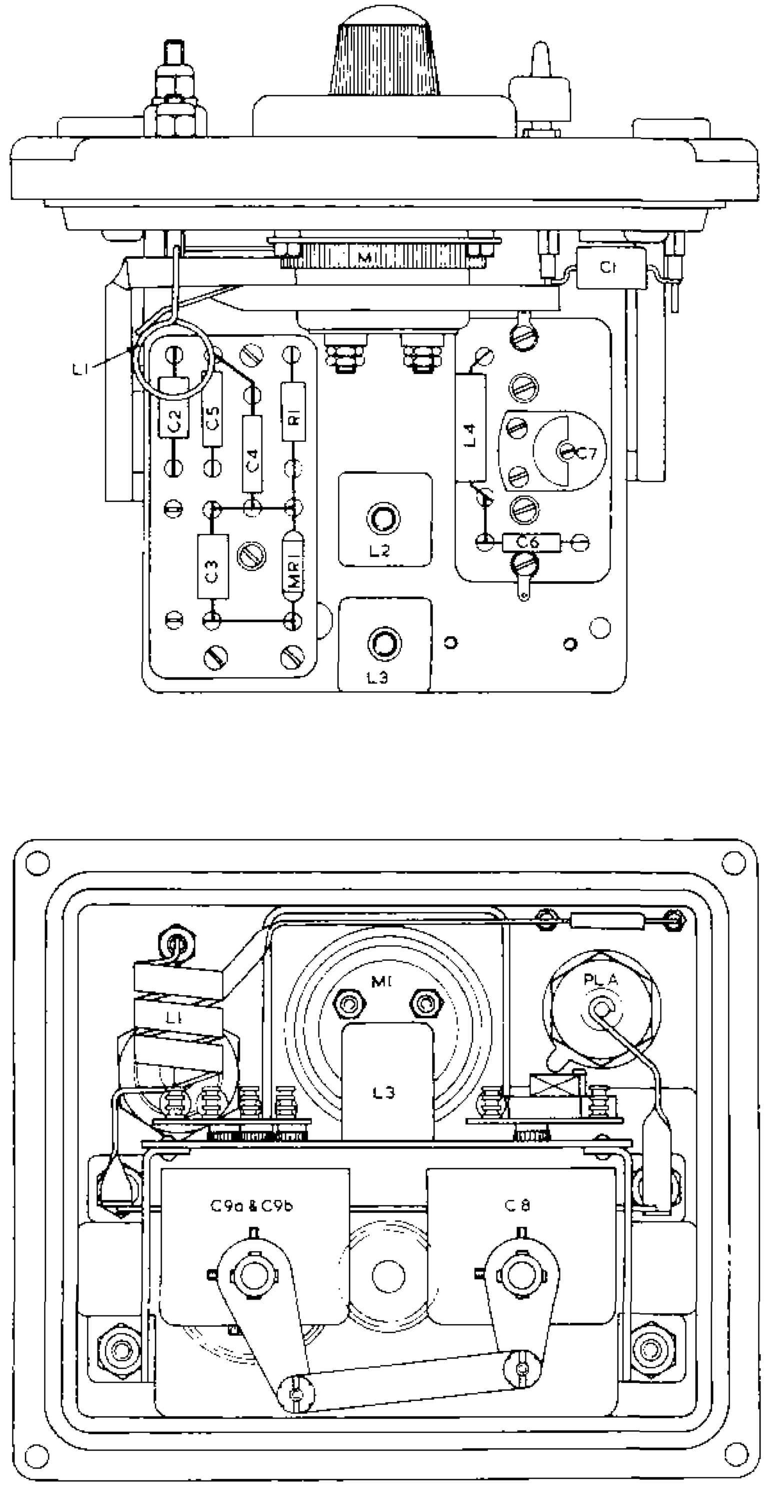


Fig [illegible] – Tuner, [illegible] circuit and front panel layout

	A	B	C	D	E	F


1
2
3
4
5
6
7
8
M1
C1
L1
C2
C5
R1
C4
C3
MR1
L2
L3
L4
C7
C6
PL A
C9a & C9b
C8
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[illegible]

Table 2517 - Tuner, r.f., aerial, No 6 - component schedule

Cct ref	Component location Circuit Fig 2526	Component location Layout Fig 2527	Value	Rating	Type and limit ±%		Part No
				RESISTORS			
R1		C3	27k	1/4W	comp	10	5905-99-022-2185
				CAPACITORS			
C1	C7	E3	0.001	350V	mica	20	5910-99-012-4479
C2	D6	C3	2.2p	500V	ceramic	10	5910-99-011-8270
C3	E7	C4	33p	500V	ceramic	10	5910-99-013-2283
C4	F8	C4	0.002	150V	p.m.t.	20	5910-99-011-5814
C5	F8	C3	0.002	150V	p.m.t.	20	5910-99-011-5814
C6	G8	D4	0.002	150V	p.m.t.	20	5910-99-011-5814
C7	B8	E3	4-33p		Trimmer		5910-99-016-0047
C8	B8	E8	7-101p		Variable, air		5910-99-016-1010
C9	D8	C8	7-76p		2-gang, variable, air		5910-99-016-0053

Cct ref	Component location Circuit Fig 2526	Component location Layout Fig 2527	Description	Part No
			MISCELLANEOUS	
L1	C7	B3	Inductor, r.f., 3 turns	ZA 47079
L2	D6	D4	Inductor, r.f., No 1	ZA 47072
L3	D7	D5	Inductor, r.f., No 2	ZA 47073
L4	G6	D3	Inductor, r.f., 38 turns, No 1	ZA 47066
MR1	E7	C4	Germanium diode, CV 425	Z1/CV 425
M1	F7	D3	Ammeter, 0-500uA f.s.d.	ZA 47703

Table 2518 - Simulator, aerial - component schedule

Cct ref	Component location Fig 2528 Circuit	Component location Fig 2528 Layout	Value	Rating	Type and limit ±%		Part No
				RESISTORS			
R1	E7	B2	470	1W	comp	10	5905-99-021-1270
R2	C6	D2	680	2.1/2W	comp	10	5905-99-021-1216
R3-R11	B7-D7	C3-E4	680	2.1/2W	comp	10	5905-99-021-1216
R12	F7	C2	57k	1/4W	comp	10	5905-99-022-2215
				CAPACITORS			
C1	E7	C5	7-75p		2-gang, variable, air		5910-99-016-0053
C2	D7	C5	15p	500V	ceramic N750	5	5910-99-013-2073
C3	G7	C3	0.002	150V	p.m.t.	20	5910-99-011-5814
C4	F8	C3	0.002	150V	p.m.t.	20	5910-99-011-5814

Cct ref	Component location Fig 2528 Circuit	Component location Fig 2528 Layout	Description	Part No
			MISCELLANEOUS	
L1	F7	B3	Inductor, r.f., 3 turns	ZA 47079
M1	G7	D3	Meter, 0-500uA	ZA 47703
MR1	F7	C2	Germanium diode, CV 424	Z1/CV 424

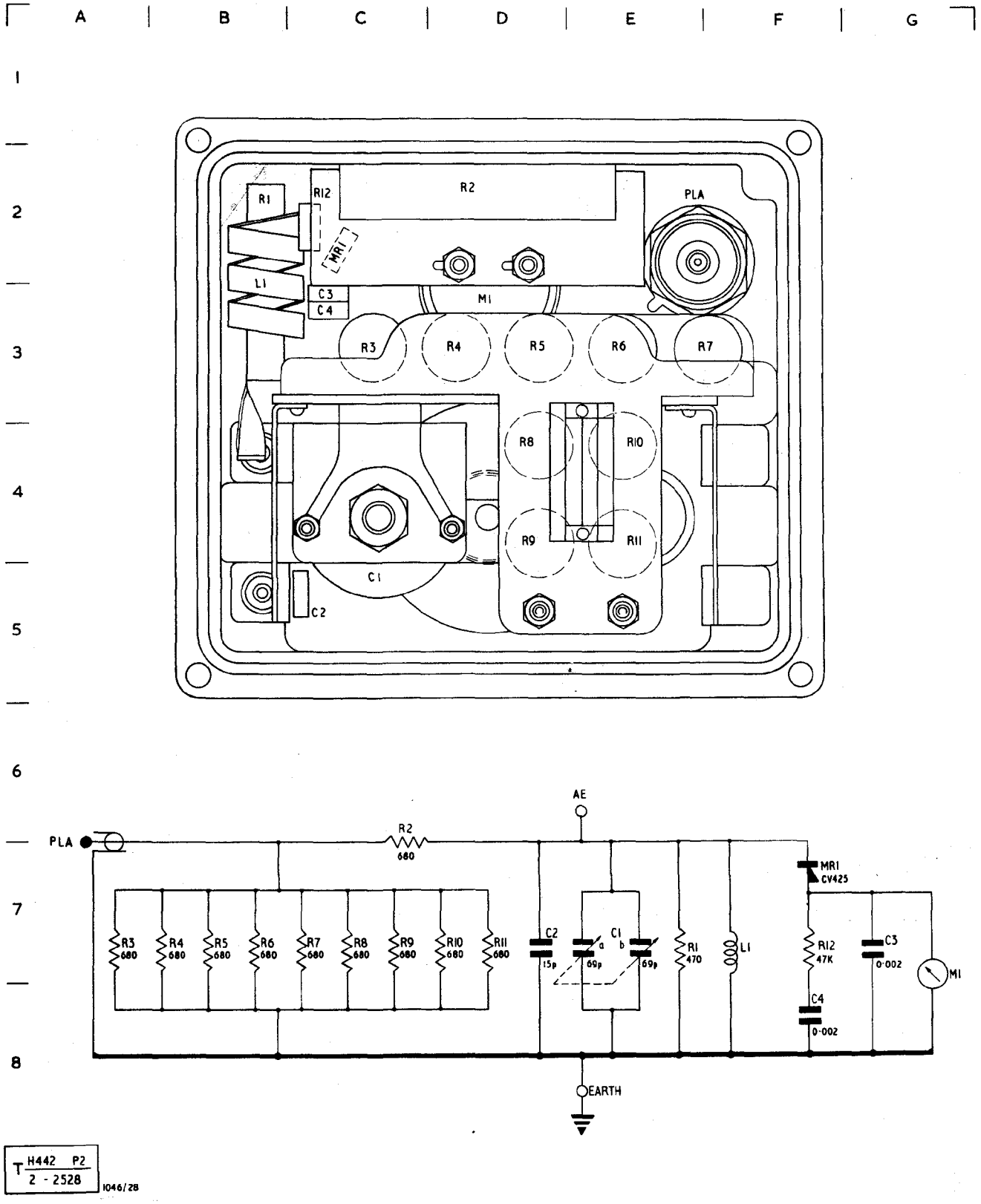


Fig 2528 - Simulator, aerial, circuit diagram and layout

END

STATION RADIO, C42, NO 1

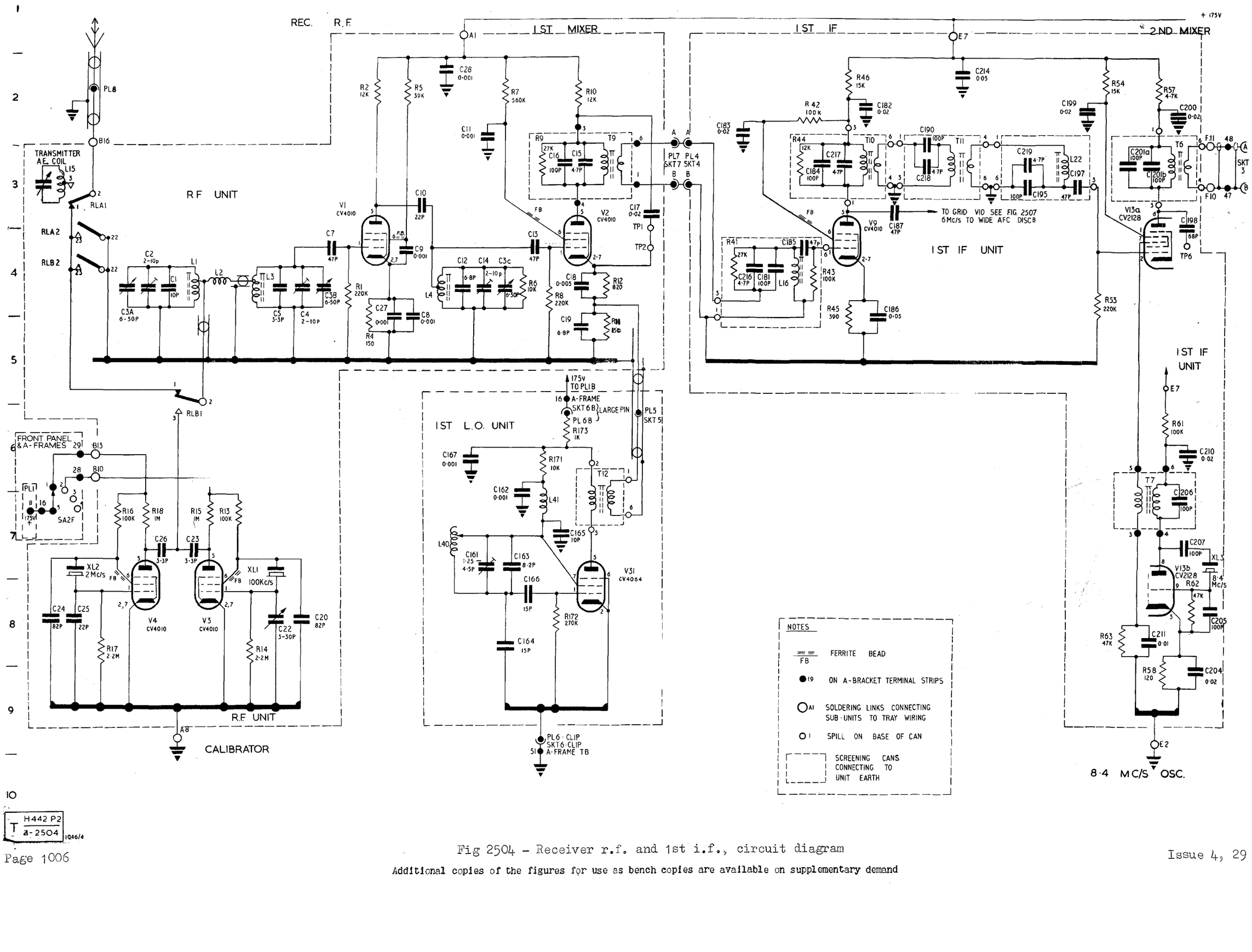
FORWARD CODING

Note: The following list of Assembly Codes must be used in conjunction with EMER Mgmt J 021 Part 4.

Assembly Code	Designation
0001	Transmitter-receiver, radio C42, No 1
0002	Main chassis
0003	Cable-form
0004	R.F. unit
0005	1st i.f. unit
0006	2nd i.f. unit
0007	Oscillator and scale assy
0008	Amplifier and motor assy
0009	A.F. amplifier
0010	Squelch unit
0011	Control modulator
0012	Modulator, radio transmitter
0013	Stabilizer voltage
0014	Oscillator and stabilizer
0015	Front panel assy
0016	Case assy
0017	Tuner, r.f., antenna
0018	Simulator, antenna tuning
0019	Antenna
0020	Handset, microphone, and headgear assy
0021	Power supply unit

EME8/1046/TELS

END

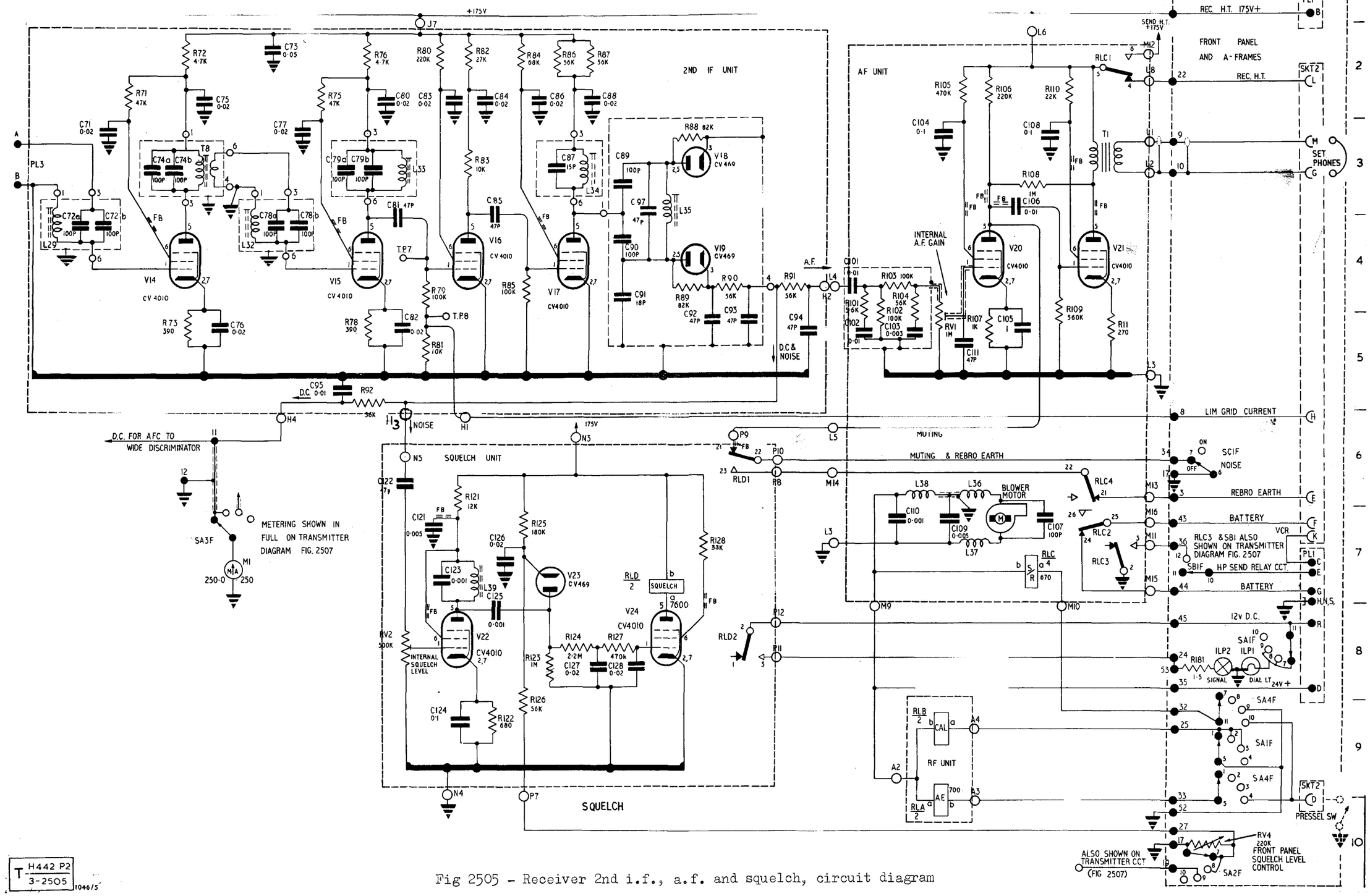


H442 P2
T a-2504 1046/4

Fig 2504 - Receiver r.f. and 1st i.f., circuit diagram

Additional copies of the figures for use as bench copies are available on supplementary demand

2ND IF | LIMITERS | AF DISCRIMINATOR (NARROW BAND) | AF AMP



T-H442 P2 3-2505 1046/5

Fig 2505 - Receiver 2nd i.f., a.f. and squelch, circuit diagram

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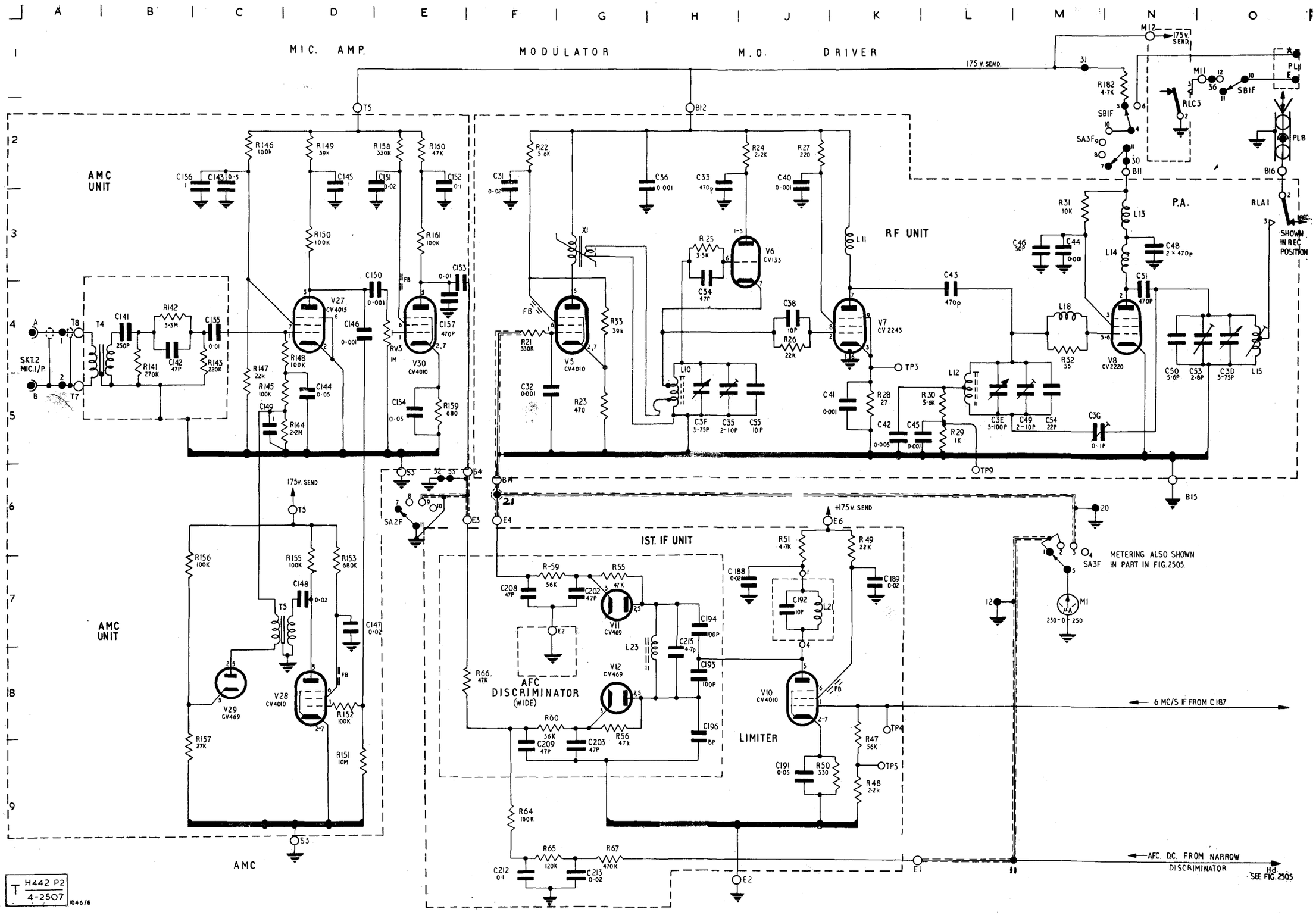

T H442 P2 4-2507 1046/6

Fig 2507 - Transmitter, circuit diagram

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Connection		Colour		Wire
From	To	Main	Marker	
PL1-A	SB1B-6	S	-	Z
B	SA2F-5	R	W	Z
C	SKT2-K	G	-	Z
D	35	BN	G	Z
E	SB1F-10	BN	B	Z
F	42	BN	W	Z
F	PL1-L	BN	-	Z
G	44	BN	R	Z
H	50	-	-	V
J	46	W	-	Z
K	No connection	-	-	-
L	40	BN	W	Z
L	PL1-Q	BN	-	Z
M	38	BN	V	Z
N	PL1-H	-	-	V
O	No connection	-	-	-
P	No connection	-	-	-
Q	39	BN	W	Z
Q	PL1-V	BN	-	Z
R	SA1F-11	S	BN	Z
S	PL1-N	-	-	V
T	No connection	-	-	-
U	No connection	-	-	-
V	13	BN	W	Z
W	37	BN	S	Z
X	14	BN	-	Z
Y	15	BN/G	G	Z
Z	41	BN	BK	Z
SKT2-A	1	BK	G	Y
B	2	Braiding of SKT2-A		X
C	4	BK	B	Y
D	SA4F-4	G	W	Z
E	3	S	G	Z
F	43	B	BN	Z
G	10	Braiding of SKT2-M		X
H	8	S	W	Z
J	6	BK	W	Y
K	PL1-C	G	-	Z
L	22	R	-	Z
M	9	BK	S	Y
SKT6-A	13	BN	W	Z
B	16	R	W	Z
clip	51	BK	-	Z
ILP1-A	SA1F-9	B	-	Z
B	M1-B	-	-	U
ILP2-A	52	BK	-	Z
B	R181	-	-	-
R181	53	Direct	-	-
M1-A	SA3F-5	O	-	Z
B	52	-	-	U
RV4-A	SC1F-6	BK	-	Z
A	SA4F-9	BK	-	Z
B	SA2F-8	-	-	U

Table 2510 - Front panel wiring table

Connection		Colour		Wire
From	To	Main	Marker	
R182	SB1B-2	-	-	-
R182	SB1B-5	-	-	-
1	SKT2-A	BK	G	Y
2	SKT2-B	Braiding of 1		X
3	SKT2-E	S	G	Z
4	SKT2-C	BK	B	Y
5	-	Braiding of 4		X
6	SKT2-J	BK	W	Y
7	-	Braiding of 6		X
8	SKT2-H	S	W	Z
9	SKT2-M	BK	S	Y
10	SKT2-G	Braiding of 9		X
11	SA3F-1	BK	-	Y
12	-	Braiding of 11		X
13	SKT6-A	BN	W	Z
13	PL1-V	BN	W	Z
14	PL1-X	BN	-	Z
15	PL1-Y	BN/G	G	Z
16	SKT6-B	R	W	Z
16	SA2F-5	R	W	Z
17	SC1F-6	BK	-	Z
18	-	Braiding of 19		X
19	SA2F-9	BK	R	Y
20	-	Braiding of 21		X
21	SA3F-3	BK	O	Y
22	SKT2-L	R	-	Z
23	No connection	-	-	-
24	53	BN	-	Z
25	SA1F-3	BN	O	Z
26	No connection	-	-	-
27	SA2F-7	P	-	Z
28	SA2F-2	R	G	Z
29	SA2F-1	R	V	Z
30	SA3F-11	R	O	Z
31	SB1B-2	R	BK	Z
32	SA4F-11	G	BN	Z
33	SA4F-5	G	-	Z
34	SC1F-7	O	BK	Z
35	PL1-D	BN	G	Z
36	SB1B-12	BN	B	Z
37	PL1-W	BN	S	Z
38	PL1-M	BN	V	Z
39	PL1-Q	BN	W	Z
40	PL1-L	BN	W	Z
41	PL1-Z	BN	BK	Z
42	PL1-F	BN	W	Z
43	SKT2-F	B	BN	Z
44	PL1-G	BN	R	Z
45	SA1F-11	S	BN	Z
46	PL1-J	W	-	Z
50	PL1-H	-	-	V
51	SKT6-clip	BK	-	Z

Connection		Colour		Wire
From	To	Main	Marker	
52	SA1F-5	-	-	U
52	M1-B	-	-	U
52	ILP2-A	BK	-	Z
53	24	BN	-	Z
53	R181	Direct	-	-
SA1F-1	SA1F-2	-	-	U
SA1F-2	SA1F-3	-	-	U
SA1F-3	25	BN	O	Z
SA1F-5	SA2F-11	BK	-	Z
SA1F-5	52	-	-	U
SA1F-7	SA1F-8	-	-	U
SA1F-8	SA1F-9	-	-	U
SA1F-9	ILP1-A	B	-	Z
SA1F-11	45	S	BN	Z
SA1F-11	PL1-R	S	BN	Z
SA2F-1	29	R	V	Z
SA2F-2	28	R	G	Z
SA2F-5	16	R	W	Z
SA2F-5	PL1-B	R	W	Z
SA2F-7	SA2F-8	-	-	U
SA2F-7	27	P	-	Z
SA2F-8	RV4-B	P	-	Z
SA2F-9	19	BK	R	Y
SA2F-11	SA1F-5	BK	-	Z
SA2F-11	SA4F-9	BK	-	Z
SA3F-1	SA3F-2	-	-	U
SA3F-1	11	BK	-	Y
SA3F-2	SA3F-1	-	-	U
SA3F-3	21	BK	O	Y
SA3F-5	M1-A	O	-	Z
SA3F-10	SB1B-4	O	-	Z
SA3F-11	30	R	O	Z
SA4F-4	SA4F-10	G	-	Z
SA4F-4	SKT2-D	G	W	Z
SA4F-5	33	G	-	Z
SA4F-9	RV4-A	BK	-	Z
SA4F-9	SA2F-11	BK	-	Z
SA4F-10	SA4F-4	G	-	Z
SA4F-11	32	G	BN	Z
SB1F-10	PL1-E	BN	B	Z
SB1F-12	36	BN	B	Z
SB1B-2	R182	Direct	-	-
SB1B-2	31	R	BK	Z
SB1B-4	SA3F-10	O	-	Z
SB1B-5	R182	Direct	-	-
SB1B-6	PL1-A	S	-	Z
SC1F-6	RV4-A	BK	-	Z
SC1F-6	17	BK	-	Z
SC1F-7	34	O	BK	Z
PL8-A	B16	-	-	W
PL8-B	50	-	-	V
PL8-B	-	Braiding of PL8-A		-

For abbreviation code see Table 2511

Table 2511 - Wiring trays, wiring table

Terminals		Colour		Wire
From	To	Main	Marker	
A1	E7	R	W	Z
A2	35	BN	G	Z
A3	33	G	-	Z
A4	25	BN	O	Z
A5	42	BN	W	Z
A6	41	BN	BK	Z
A6	F9	BN	BK	Z
A7	38	BN	V	Z
A8	E2	BK	-	Z
B9	-	-	-	-
B10	28	R	G	Z
B11	30	R	O	Z
B12	31	R	BK	Z
B12	E6	R	BK	Z
B13	29	R	V	Z
B14	E4	-	O	Y
B15	-	Braiding of B14		X
B15	E2	-	-	X
B15	Chassis	-	1/8 in.	Braid
B16	PL8-A	-	-	W
SKT7-A	SKT4-A	S	-	Z*
SKT7-B	SKT4-B	BK	-	Z*
E1	11	-	BK	Y
E2	A8	BK	-	Z
E2	20	Braiding of E4		X
E2	12	Braiding of E1		X
E2	17	BK	-	Z
E2	B15	Braiding of E4		X
E2	18	Braiding of E3		X
E3	19	-	R	Y
E4	B14	-	O	Y
E4	21	-	O	Y
E5	39	BN	W	Z
E6	B12	R	BK	Z
E7	16	R	W	Z
E7	A1	R	W	Z
E8	47	W	-	Z
F9	A6	BN	BK	Z
F10	49	Braiding of F11		X
F11	48	-	S	Y
G7	5	Braiding of G9		X
G8	-	-	-	-
G9	4	-	B	Y
SKT4-A	SKT7-A	S	-	Z*
SKT4-B	SKT7-B	BK	-	Z*
H1	8	S	W	Z
H2	L4	G	W	Z
H3	N5	G	BK	Z
H4	11	S	BK	Z

Terminals		Colour		Wire
From	To	Main	Marker	
J5	N4	BK	-	Z
J5	L3	BK	-	Z
J6	13	BN	W	Z
J7	N3	R	W	Z
J7	L6	R	W	Z
SKT3-A	48	-	-	X
SKT3-B	49	Braiding of SKT3-A		Y
L1	9	-	S	Y
L2	10	Braiding of L1		X
L3	J5	BK	-	Z
L3	T6	BK	-	Z
L4	H2	G	W	Z
L5	P9	O	W	Z
L6	Q4	R	W	Z
L6	J7	R	W	Z
L7	N2	BN	W	Z
L7	40	BN	W	Z
L8	22	R	-	Z
M9	35	BN	G	Z
M10	32	G	BN	Z
M11	36	BN	B	Z
M12	T5	R	BK	Z
M12	31	R	BK	Z
M13	3	S	G	Z
M14	P8	S	V	Z
M15	44	BN	R	Z
M16	43	B	BN	Z
N1	-	-	-	-
N2	L7	BN	W	Z
N3	J7	R	W	Z
N4	J5	BK	-	Z
N5	H3	G	BK	Z
N6	-	-	-	-
P7	27	P	-	Z
P8	M14	S	V	Z
P9	L5	O	W	Z
P10	34	O	BK	Z
P11	24	BN	-	Z
P12	45	S	BN	Z
Q1	-	-	-	-
Q2	37	BN	S	Z
Q3	-	-	-	-
Q4	16	R	W	Z
Q4	L6	R	W	Z
Q5	6	-	W	Y
Q6	7	Braiding of Q5		X
S1	15	BN/G	G	Z
S2	14	BN	-	Z
S3	18	Braiding of S4		X

Terminals		Colour		Wire
From	To	Main	Marker	
S4	19	-	R	Y
T5	M12	R	BK	Z
T6	46	W	-	Z
T6	47	W	-	Z
T7	2	Braiding of T8		X
T8	1	-	G	Y
1	T8	-	G	Y
2	T7	Braiding of 1		X
2	5	BK	-	Z
3	M13	S	G	Z
4	G9	-	B	Y
5	G7	Braiding of 4		X
6	Q5	-	W	Y
7	Q6	Braiding of 6		X
7	10	BK	-	Z
8	H1	S	W	Z
9	L1	-	S	Y
10	L2	Braiding of 9		X
11	E1	-	BK	Y
11	H4	S	BK	Z
12	E2	Braiding of 11		X
13	J6	BN	W	Z
14	S2	BN	-	Z
15	S1	BN/G	G	Z
16	Q4	R	W	Z
16	E7	R	W	Z
17	E2	BK	-	Z
18	E2	Braiding of 19		X
18	S3	Braiding of 19		X
19	S4	-	R	Y
19	E3	-	R	Y
20	E2	Braiding of 21		X
21	E4	-	O	Y
22	L8	R	-	Z
23	-	-	-	-
24	P11	BN	-	Z
25	A4	BN	O	Z
26	-	-	-	-
27	P7	P	-	Z
28	B10	R	G	Z
29	B13	R	V	Z
30	B11	R	O	Z
31	B12	R	BK	Z
31	M12	R	BK	Z
32	M10	G	BN	Z
33	A3	G	-	Z
34	P10	O	BK	Z
35	A2	BN	G	Z
35	M9	BN	G	Z

Terminals		Colour		Wire
From	To	Main	Marker	
36	M11	BN	B	Z
37	Q2	BN	S	Z
38	A7	BN	V	Z
39	E5	BN	W	Z
40	L7	BN	W	Z
41	A6	BN	BK	Z
42	A5	BN	W	Z
43	M16	B	BN	Z
44	M15	BN	R	Z
45	P12	S	BN	Z
46	T6	W	-	Z
47	T6	W	-	Z
47	E8	W	-	Z
48	F11	-	S	Y
48	SKT3-A	-	S	Y
49	T6	Braiding of 48		X
49	SKT3-B	Braiding of 48		X

*Twisted together 3 t.p.i.

Colour abbreviations	
R = Red	BN = Brown
W = White	BK = Black
G = Green	V = Violet
O = Orange	S = Slate
B = Blue	P = Pink

Wire code	
U	22 S.W.G. tinned copper
V	18 S.W.G. tinned copper
W	Uniradio 43
X	Braiding of Y
Y	7/0.0076 T.C. wire, P.V.C. ins., screened
Z	7/0.0076 Swbd wire