

WORKING INSTRUCTIONS

NEW ZEALAND
WIRELESS SET
No. ZC1, MK.II.

NOT TO BE PUBLISHED

The information given in this document is not to be communicated, either directly or indirectly, to the Press or to any person not holding an official position in His Majesty's Service.

PART 1.
GENERAL DESCRIPTION AND OPERATION
FIRST-LINE MAINTENANCE

WSB 3-A

APPENDIX II.

NEW ZEALAND WIRELESS SET ZC.1, MK. II.

Table of Component Values.

RESISTORS.				
Schematic Reference.	Value.	Type.	Wattage.	Tolerance. + or -
*R1A	20,000 ohms	Carbon	2	20%
R2A-G	50,000 "	"	$\frac{1}{2}$	"
*R3A	25,000 "	"	2	"
R4A-D	.5 megohm	"	$\frac{1}{2}$	"
*R5A	10 "	"	"	"
*R6A-C	.25 "	"	"	"
R7A-E	1 "	"	"	"
R8A-D	100,000 ohms	"	"	"
R9A-B	.5 megohm	Potentiometer	—	—
R10A-B	2,000 ohms	Carbon	$\frac{1}{2}$	20%
R11A-B	200 "	"	"	"
R12A	1,000 "	"	"	"
*R13A	1,400 "	"	2	"
R14A	55 "	WW	$\frac{1}{2}$	5%
R15A	50 "	Carbon	"	20%
R16A	15,000 "	"	1	"
R17A	20,000 "	"	$\frac{1}{2}$	"
R18A	10,000 "	"	"	"
*R19A	500 "	"	2	"
R20A	200 "	WW	1	1%
R21A	20 "	WW	2	5%
R22A	100 "	Carbon	1	20%

*Indicates nominal value shown. Substitute values or combinations of values may be used. These are tabulated on next page.

Table of Substitute Resistors.

Schematic Reference.	Nominal Value.	Nominal Wattage.	Substitute.	Connection Arrangement.
*R1A	20,000 ohms	2	2/40,000 ohm 1 watt 2/10,000 ohm 1 watt	Parallel Series
*R3A	25,000 ohms	2	2/50,000 ohm 1 watt 2/47,000 ohm 1 watt	Parallel Parallel
*R5A	10 megohms	$\frac{1}{2}$	1/10 megohm 1/3 watt 2/5 megohm $\frac{1}{2}$ watt	— Series
*R6A-C	.25 megohms	$\frac{1}{2}$	1/250,000 ohm 1/3 watt 1/240,000 ohm 1/3 watt 1/200,000 ohm 1 watt 1/200,000 ohm $\frac{1}{2}$ watt	— — — —
*R13A	1,400 ohms	2	1/1,000 ohm 2 watt and 1/400 ohm 2 watt 2/2,800 ohm 1 watt	Series Parallel
*R19A	500 ohms	2	2/1,000 ohm 1 watt	Parallel

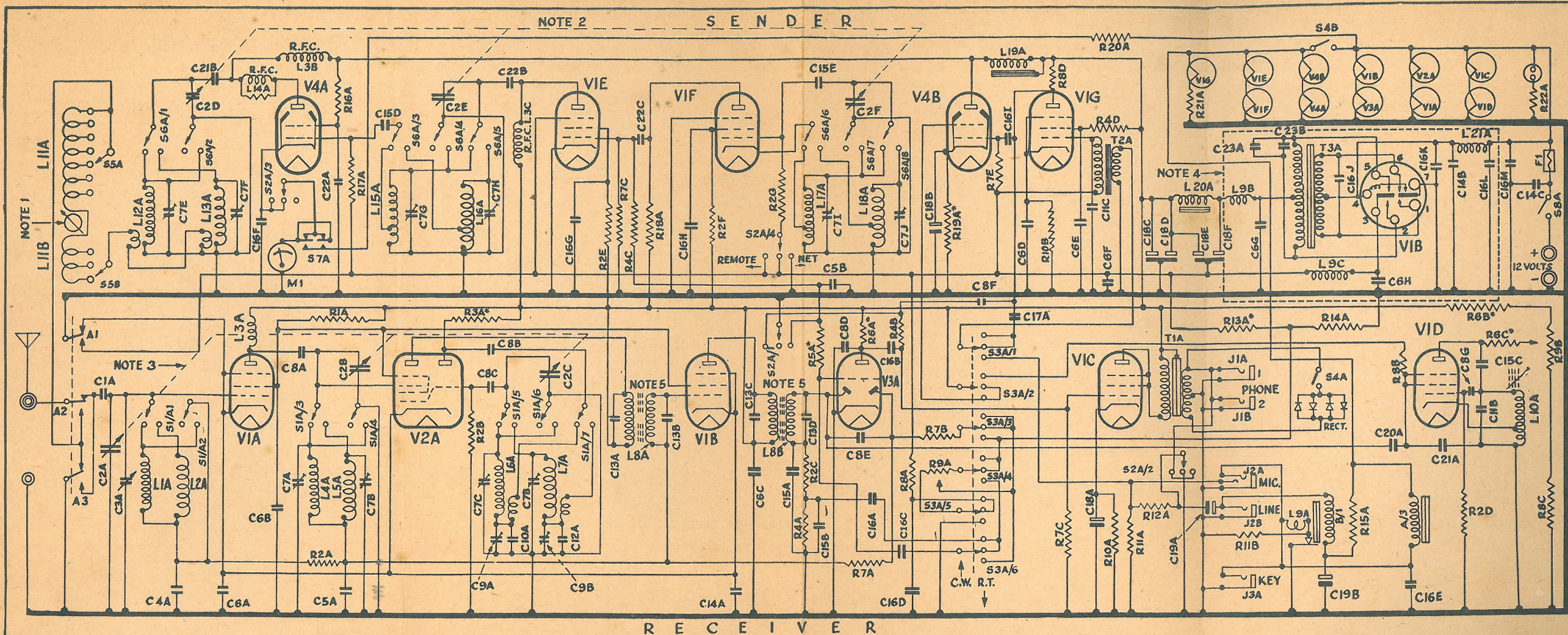
Table of Component Values.—(Continued.)

CONDENSERS.				
Schematic Reference.	Value.	Type.	Voltage Rating.	Tolerance. + or —
C1A	15 mmfd.	Silvered mica	—	20%
C2A-C	—	Plessey gang modified	—	—
C2D-F	—	" " "	—	—
C3A	5-35 mmfd.	Variable	—	—
C4A	.02 mfd.	Paper, metal cased Insulated	400	20%
C5A-B	.02 mfd.	Paper, metal cased	400	"
C6A-H	.1 mfd.	" " "	400	30%
C7A-J	3-30 mmfd.	Philips air trimmer	—	—
C8A-G	.0001 mfd.	Postage stamp mica	400	20%
C9A-B	500-1200 mmfd.	Semi fixed	—	—
C10A	.0005 mfd.	Postage stamp mica	400	10%
C11B-C	"	" " "	400	20%
C12A	.0015 mfd.	" " "	400	10%
C13A-D	.00008 mfd.	Philips mica	400	2½%
C14A-C	.25 mfd.	Paper, metal cased	400	20%
C15A-E	.00005 mfd.	Mica postage stamp	400	"
C16A-M	.004 mfd.	" " "	400	"
C17A	.02 mfd.	Paper, metal cased Insulated	600	"
C18A-F	10 mfd.	Double section electro- lytic	450	—
C19A-B	25 mfd.	Metal cased tubular electrolytic	25	—
C20A	5 mmfd.	Silvered mica	400	20%
C21A-B	.001 mfd.	Mica postage stamp	400	"
C22A-C	.00025 mfd.	" " "	400	"
C23A-B	.011 mfd.	Mica	1,800	10%

Table of Component Values.—(Continued.)

INDUCTANCE	
Code	Purpose
L1A-L2A*	Aerial, Receiver
L3A-C	Chokes, R.F., Anode
L4A-L5A*	Interstage, Receiver
L6A-L7A*	Oscillator, Receiver
L8A	Transformer, I.F., No. 1
L8B	Transformer, I.F., No. 2
L9A-C	Chokes R.F., H.T.
L10A	I.F., Oscillator (BFO)
L11A-B*	Loading, Aerial tuning
L12A	Amplifier, power, tank, L.F.
L13A	Amplifier, power, tank, L.F.
L14A	Chokes, H.F., parasitic sup- pressor
L15A-L16A*	Driver, tuning
L17A-L18A*	Master, oscillator
L19A	Chokes, A.F., Modulation reactor
L20A	Chokes, A.F., Filter
L21A	Chokes, R.F., L.T.
*Indicates wound on one former and not separately demandable.	
TRANSFORMERS	
Code	Purpose
T1A	Telephone
T2A	Microphone
T3A	Vibrator
SWITCHES	
Code	Type
S1A	9 pole, 2 position
S2A	4 pole, 3 position
S3A	6 pole, 3 position
S4A-B	On-Off, S.P., No. 1
S5A-B	1 pole, 11 position
S6A	3 pole, 3 position (3-ganged)
S7A	Push, D.P.D.T.
S8A	On-Off, S.P., 10 amp.

RELAYS	
Code	Type
A — 3	3 pole, 2 position
B — 1	
JACKS	
Code	Type
J1 (AB)	Telephone
J2 (AB)	Mic.-Line
J3A	Key
VALVES	
Code	Type
V1A-G	6U7G
V2A	6K8G
V3A	6Q7GT
V4A-B	6V6GT/G
METERS	
Code	Type
M1	Ammeter, D.C., 2½" or 2", 0-100 M.A.
FUSES	
Code	Type
F1	15 amp., 1½" × ¼"
VIBRATORS	
Code	Type
V1B	12v., Synchronous



NOTE 1. "VERNIER ANT. CCT. TUNING CONTROL" - METAL DISC
ROTATABLE WITHIN FORMER OF AERIAL TUNING COILS.

NOTE 2. C2D,E,F GANGED CONDENSERS - SENDER TUNING.

NOTE 3. C2A,B,C GANGED CONDENSERS - RECEIVER TUNING.

NOTE 4. ALL COMPONENTS SHOWN ENCLOSED IN DOTTED
LINE ARE IN POWER SUPPLY UNIT.

NOTE 5. CONDENSERS C13A-D INTEGRAL
WITH I.F. UNIT.

NOTE 6. S1A/I-7 "RECEIVER BANDSWITCH" SHOWN IN L.F. POSITION.

S2A/I-4 "NET-NORMAL-REMOTE" SWITCH SHOWN IN NORMAL POSITION - ALL 4
MOVING ARMS TO RIGHT FOR NET AND TO LEFT FOR REMOTE.

S3A/I-6 "CW-MCW-RT" SWITCH SHOWN IN M.C.W. POSITION - ALL 6 MOVING ARMS
DOWN FOR R.T. UP FOR C.W.

S6A/I-8 "SENDER BANDSWITCH" SHOWN IN L.F. POSITION.

S7A "PRESS TO READ LT" SWITCH - ARMS MOVE DOWN TO READ LT.

WIRELESS SET NO. ZC.I, MK.II. - SCHEMATIC.

FIG. 12.

R.B. Long

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PART II.

TECHNICAL DESCRIPTION AND
MAINTENANCE

2045
468

2510
2467

43

.005

18000
005

75000

25000
5.005

25000

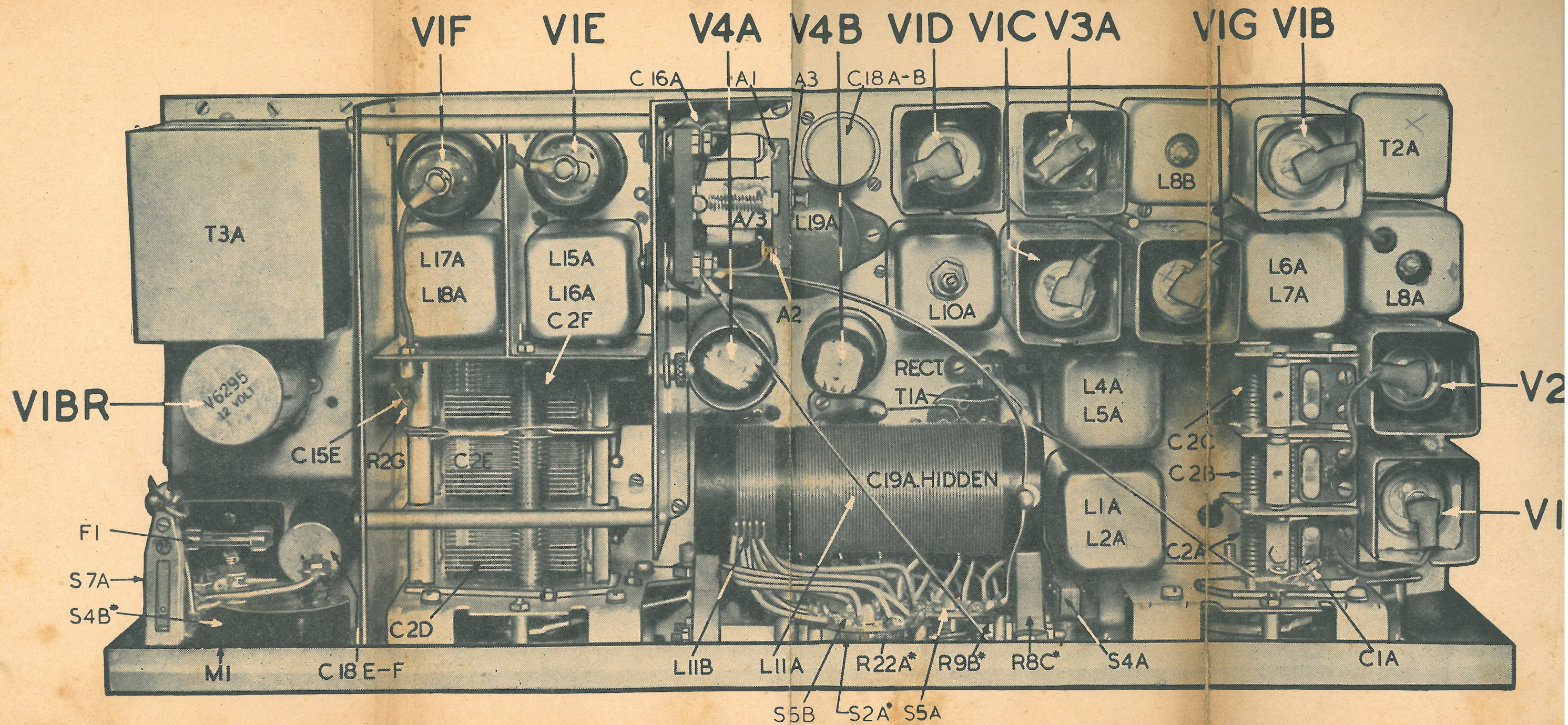


FIGURE 4.

TOP VIEW OF CHASSIS.

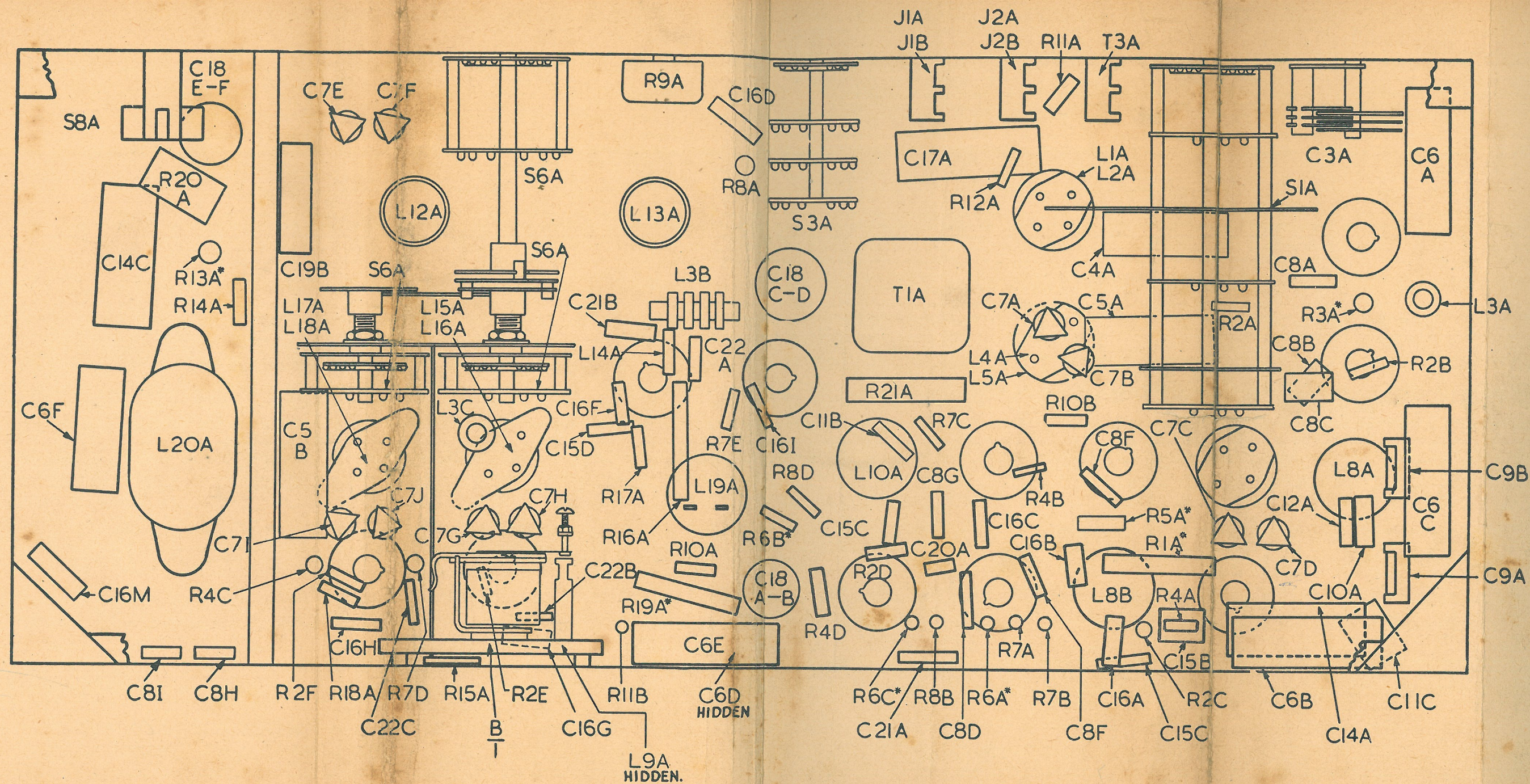


FIGURE 5.

UNDERNEATH VIEW OF CHASSIS.