

SINGLE SIDEBAND
RADIO COMMUNICATIONS EQUIPMENT
TYPE - SSB-1
ADDENDUM No. 2.

June 1957

This Addendum applies to all sets with Serial Numbers 5701 and above. It covers the following modifications.

1. Add shorting sections to Switch Wafers S201, D, H, and I.
2. Add Auxiliary Channel Switch wafer S201-J.
3. Add Auxiliary Channel Switch Terminal Board, TB202.
4. Add Receiver Antenna Link, TB201.
5. Add R287 and R288.

Schematic Diagram D1259266 is to be used for all sets with Serial numbers 5701 and above.

FILTER TYPES: Only one type of Mechanical Filter is used in sets having Serial Numbers 5701 and above. This is the RCA type, MFU - 250 - 1, and will pass a sideband of approximately 3 kc wide while rejecting the 250 kc carrier. The accessory components required for this filter are listed in the Parts List covering Addendum No. 2.

The five additions constituting Addendum No. 2 provide better operation and flexibility for the SSB-1 Transmitter-Receiver. Explanation for these additions is as follows:

Item 1. The shorting sections of the switch wafers S201-D, H, and I, remove the unused coils from the radio frequency circuits of the transmitter and receiver, thus reducing losses and improving efficiency.

Item 2. The Auxiliary Channel switch wafer, S201-J is an extension of the channel Selector Switch. The five contacts of this wafer are brought out to a terminal board (TB202). One contact is common to all the other contacts so that a AC or DC current may be applied in series with a control device such as a relay indicator lamp, etc.

Item 3. The Auxiliary Channel Switch Terminal Board (TB202) provides a terminal connection for the Auxiliary Channel switch and any outer contacts required for control operation of auxiliary equipment.

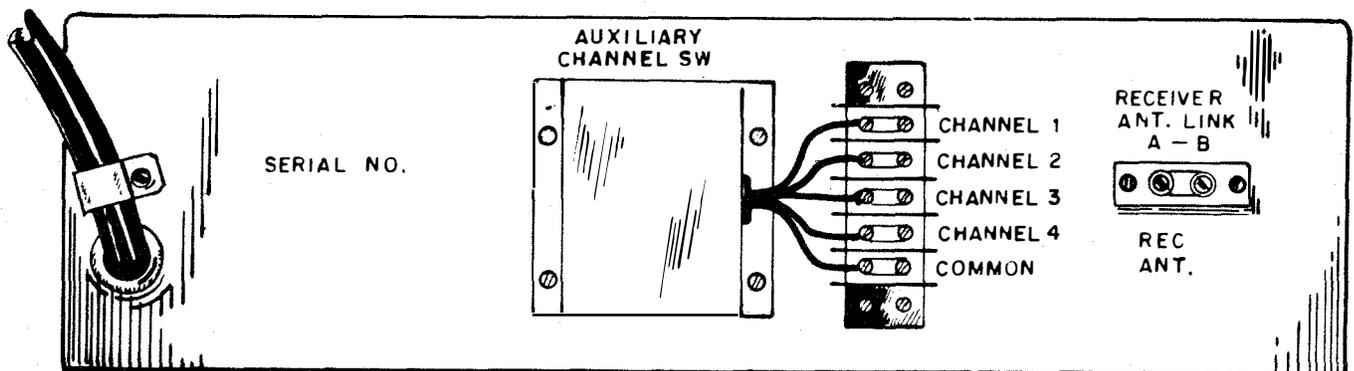
Item 4. The Antenna Link on TB201 is removed when a pre-amplifier for the receiver or a linear power amplifier to follow the transmitter power amplifier is required. The input and output terminals of such amplifiers are connected to terminals B and A.

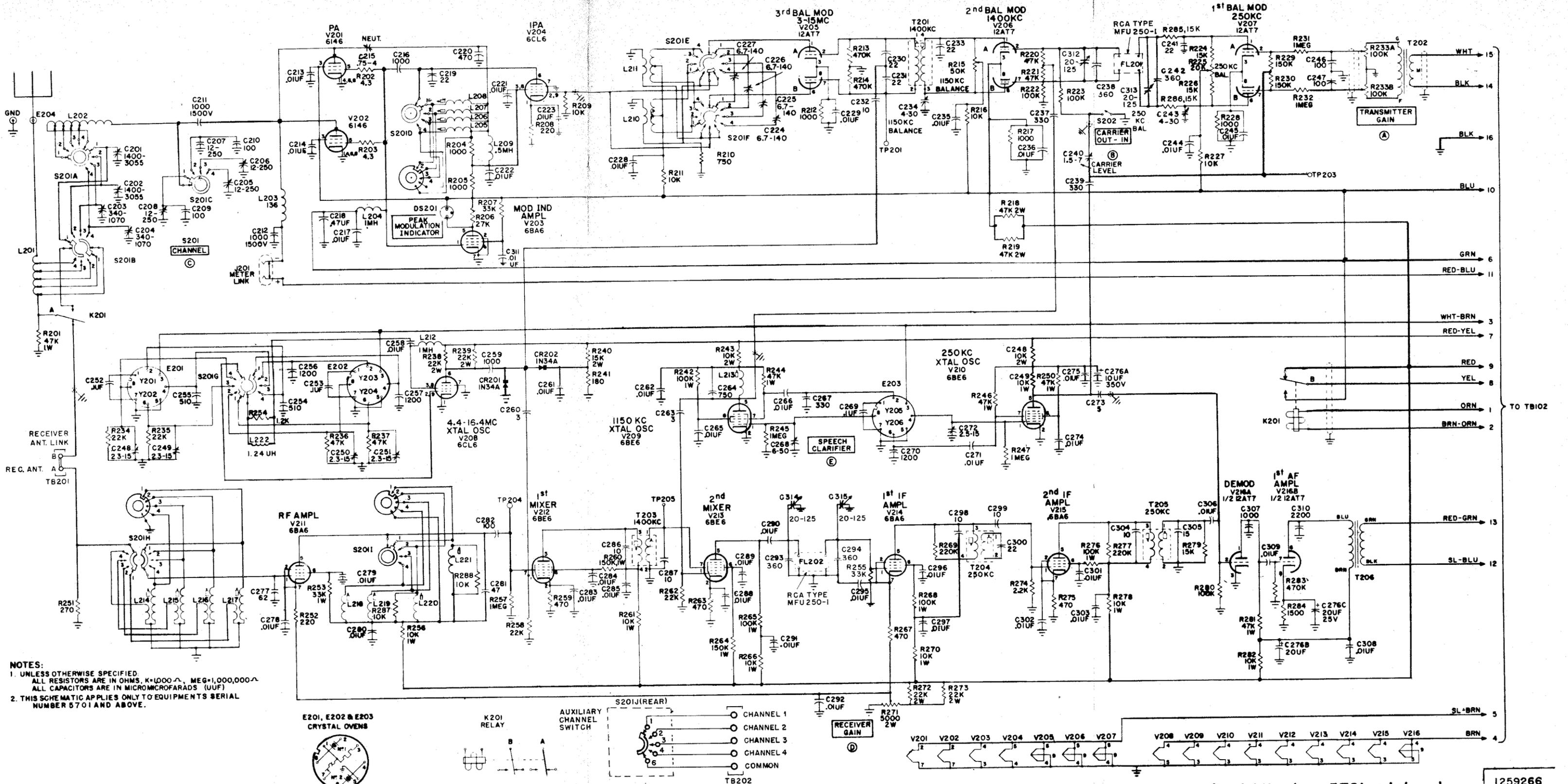
Item 5. The resistors R287 and R288 connected across L220 and L221 respectively provide greater receiver stability for channels 1 and 2 thus improving reception on these channels.

Refer to Transmitter Receiver Schematic (Figure 29-C).

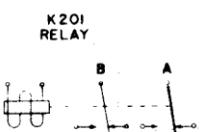
PARTS LIST

Reference Symbol	Quantity	Locating Function	Name and Description	Stock Number	
SSB-1		TRANSMITTER - RECEIVER UNIT			For Serial Numbers 5701 and above
C238	4	FL201 Input	Capacitor, Mica: 360 uuf. $\pm 2\%$ 500 V dc; GM.206316-G.	006-274	
C242		FL201 Output	Same as C238.		
C293		FL202 Input	Same as C238.		
C294		FL202 Output	Same as C238.		
C312	4	FL201 Input	Capacitor, V.C.: 20-125 uuf. Centralab 823-AN	087-175	
C313		FL201 Output	Same as C312.		
C314		FL202 Input	Same as C238.		
C315		FL202 Output	Same as C238.		
FL201	2	Transmitter Sideband	FILTER, Mechanical: Band-pass 250 kc; Upper side-band; 3 kc band-width at 6db. Type RCA MFU-250-1.	136-036	
FL202		Receiver Sideband	Same as FL201.		
R285	2	FL201 attenuation	Resistor, Comp; 15,000 ohms 1/2 w. $\pm 10\%$		
R286		FL201 attenuation	Same as R285		
R287	2	L220 swamper	Resistor, comp; 10,000 ohms $\pm 10\%$ Jan RC20BF103k.		
R288		L221 swamper	Same as R287.		





NOTES:
 1. UNLESS OTHERWISE SPECIFIED, ALL RESISTORS ARE IN OHMS, K=1,000, MEG=1,000,000. ALL CAPACITORS ARE IN MICROMICROFARADS (UUF)
 2. THIS SCHEMATIC APPLIES ONLY TO EQUIPMENTS SERIAL NUMBER 5701 AND ABOVE.



AUXILIARY CHANNEL SWITCH

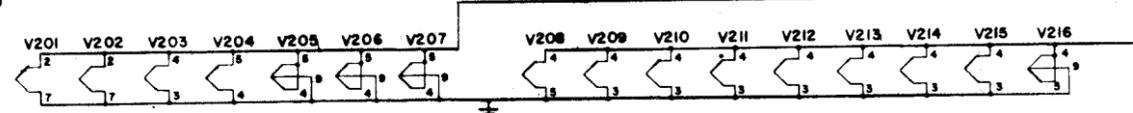
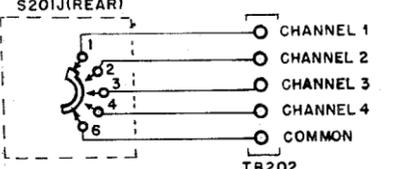


Figure 29- C Transmitter-Receiver Schematic (Serial Numbers 5701 and above).

T-1 TO NAVSHIPS 92917

TEMPORARY CORRECTION T-1 TO THE TECHNICAL MANUAL FOR TYPE SSB-1 SINGLE-SIDEBAND RADIO COMMUNICATION EQUIPMENT (NAVSHIPS 92917).

Temporary Correction T-1 does not apply to NAVSHIPS 92917 until Field Change Number 1 has been accomplished. Therefore DO NOT correct the Technical Manual until the field change has been accomplished.

Field Change Number 1-SSB-1 applies to all Single-Sideband Radio Communication Equipment. Its purpose is to provide satisfactory operation of the Single-Sideband Radio Communication Equipment, SSB-1, from standard naval remote system.

Correct the Technical Manual with pen and ink in accordance with the following instructions. Make whatever deletions are necessary and where there is insufficient space on the given page to insert the corrective or added data, merely make the following notation along side of the affected text or diagram "See T-1".

After the following corrections have been made, staple these pages on the reverse side of the front cover of the manual as a permanent record.

Page	Ref.	Corrections To Be Made
Title		Delete "230"
	Figure 1.	Paste new Figure 1 over original Figure 1
1	Para. III.	Delete "Telephone" in paragraph III.5.
2	Illustrations	Delete reference to Figure 19.
4	TRANSMITTER	AUDIO INPUT Change sub-paragraph a) to read as follows: a) Single Button Carbon Microphone From Local Handset or From Standard Navy Remote System.

Page	Ref.	Corrections To Be Made
5	LINE VOLTAGE	Delete "230"
5	LAMPS	Change "5" to "2"
7	Figure 3	Paste new Figure 3 over original Figure 3
8	Section I Para. 5	Delete the entire last sub-paragraph.
8	Section I Para. 6	Change the second sub-paragraph to read as follows: The equipment operates from 115 volt, 50 to 60 cycle single phase power source and requires approximately 310 watts for full power output. The equipment is connected to the standard navy remote system by a twelve wire cable for the control circuits, and a two wire audio cable for external speakers.
12	Section II Para. 4. h.	Line 3. Change "T-106" to "T-107"
13	Figure 6	Paste new Figure 6 over original Figure 6.
14	Section II Para. 4. h.	Line 10. Change to read as follows: "operation or remote operation."
14	Section II Para. 5	Change sub-paragraph <u>a.</u> to read as follows: <u>a.</u> Input voltage to the power supply circuit is 115 volts, 50/60 cycle. Refer to figure 6.

Page	Ref.	Corrections To Be Made
14	Section IIXX Para. 5	<p>Change sub-paragraph <u>d.</u> to read as follows:</p> <p>d. Turning TRANSMITTER switch S103, on energizes realy K102. K-102 applies power to the primary of transformers T101, T102 and T108. T101 supplies filament power for all the transmitter tubes. T102 supplies plate voltages for the HV rectifiers V101 and V102 (type 5R4GY), connected in a full-wave center tap circuit with plates in parallel to supply + 600 volts dc through a single-section choke input filter to the plates of power amplifiers V201 and V202. T108 secondary supplies -20 volts dc through a rectifier, Z101, and a double-section choke input filter for the standard navy remote system.</p>
14	Section IIXX Para. 5	<p>Change sub-paragraph <u>g.</u> to read as follows:</p> <p><u>g.</u> LOCAL-REMOTE switch S106 selects the local handset or any one of the remote units which may be connected to the standard navy remote system. It switches the microphone circuit, the -20 volts dc control voltage, the Transmitter Start-Stop control circuit and the power for the indicator lamp at the selected remote position.</p>
15	Section III Para. 4	<p>Line 1. Change "may be either 115v or 230vx ac," to read "is 115v ac,".</p>
15	Section III Para. 4	<p>Delete all reference to "230v, 50/60cps"</p>

Page	Ref	Corrections To Be Made
15	Section III Para. 5.	Change paragraph 5. to read as follows: 5. REMOTE CONNECTIONS. Connections for remote stations are provided at terminal board TB 103 on the power supply chassis. Connections are made through the standard navy remote system. Control circuit connections are made using a MSCA-12 Cable. Audio connections are made using a TTHFWA-1 1/2 Cable connected to terminals 13 and 14 of TB103.
22	Figure 10	Paste new Figure 10 over original Figure 10.
23	Section IV Para. 2.	Line 1. Change to read as follows: Operation of a simplex radio telephone station using an SSB-1 with the standard navy remote system as shown in figure 11 is as follows:
23	Section IV Para. 2.	Change sub-paragraph a.(3) to read as follows: (3) Turn TRANSMITTER switch (L) on.
23	Figure 11.	Delete remote numbers 2 and 3.
23	Section IV Para. 2. <u>c.</u>	Change sub-paragraph (2) to read as follows: (2) On the power supply chassis, turn LOCAL-REMOTE switch (G) to Remote position.
23	Section IV Para. 2. <u>c.</u>	Delete sub-paragraphs (3), (4), and (5). Add new sub-paragraph (3) as follows:

Page	Ref	Corrections To Be Made
57	PARTS LIST	Delete all reference to DS104, DS105, and DS106.
59	PARTS LIST	<p>After K101 add the following:</p> <p>K102 1 Start-stop relay Relay, coil 115 vac., 50/60 cycles, contacts dpst Struthers-Dunn type 21BDXX101 Federal Stock Number N5945-645-1954.</p>
59	PARTS LIST	<p>After L102 add the following:</p> <p>L103 1 filter choke Inductance, Dual Section, 08 h., 7v rms, 120 cps., 600 ma. Federal Stock Number N5950-637-6433.</p>
62	PARTS LIST	Delete all reference to R138, R139, R140 and R141.
63	PARTS LIST	Delete all reference to R142.
63	PARTS LIST	<p>After R143 add the following:</p> <p>R144 Dropping resistor for Start-stop relay Resistor, wire-wound, 250 ohms, 10 watts, RW56G251 Federal Stock Number N5905-156-5965</p>

Page	Ref.	Corrections To Be Made
64	PARTS LIST R229	<p>Change "Name and Description" column to read as follows:</p> <p style="padding-left: 40px;">Resistor, composition, 150,000 ohms, + 10%, 1/2w, JAN RC20BF154K</p> <p>Under "Stock Number" column add "270-154"</p> <p>Under "Quantity" column add "3".</p>
64	PARTS LIST R230	<p>Change "Name and Description" column to read as follows:</p> <p style="padding-left: 40px;">Same as R229.</p>
67	PARTS LIST S103	<p>Change "Name and Description" column to read as follows:</p> <p style="padding-left: 40px;">Switch, Toggle, spdt, momentary contact, Federal Stock Number N5930-050-2686</p> <p>Delete "Stock Number" column.</p>
67	PARTS LIST S106	<p>Change "Name and Description" column to read as follows:</p> <p style="padding-left: 40px;">Switch, Rotary, 1 section, 2 positions, 4 poles, Federal Stock Number N5930-260-3144</p> <p>Delete "Stock Number" column.</p>
67	PARTS LIST T105	<p>Change "Locating Function" column to read as follows:</p> <p style="padding-left: 40px;">1 Speech input transformer.</p> <p>Change "Name and Description" column to read as follows:</p> <p style="padding-left: 40px;">Transformer, Audio, 600 ohms to 25 ohms, Federal Stock Number N5950-645-1954</p> <p>Delete "Stock Number" column.</p>

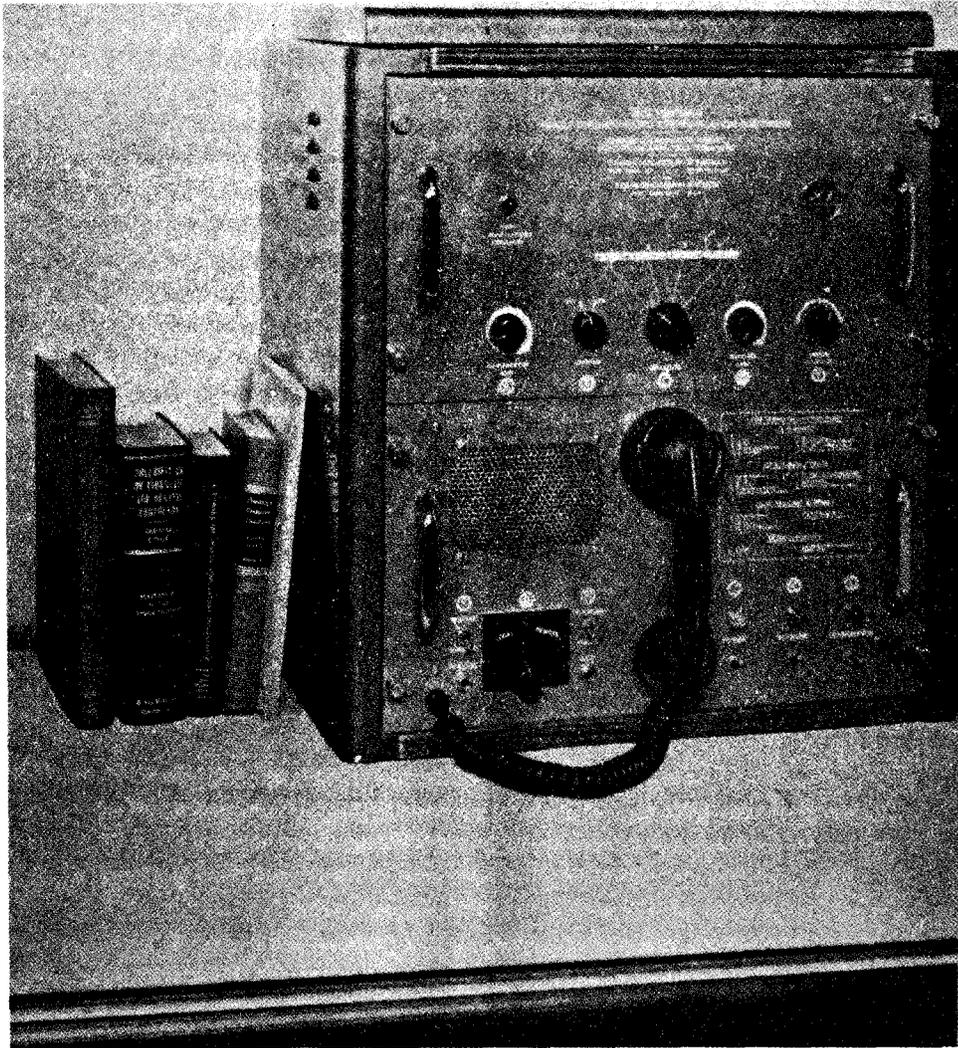
Page	Ref.	Corrections To Be Made			
67	PARTS LIST T106	<p>Change "Reference Symbol" column to read as follows:</p> <p>T107</p> <p>Change "Name and Description" column to read as follows:</p> <p>Transformer, Audio, primary 5000 ohms, secondary 4 ohms, 8 ohms, 16 ohms, 150 ohms, and 600 ohms, Chicago Transformer Co. type COH-1 (MIL-T-27A, Grade 1, Class R).</p> <p>Delete "Stock Number" column.</p>			
67	PARTS LIST	<p>After new T107 add the following:</p> <table> <tr> <td>T108</td> <td>1 Negative voltage power supply</td> <td>Transformer, Power, step-down; primary 115v, 60 cycles secondary 20v, 1.04 amp., Federal Stock Number N5950-244-5513</td> </tr> </table>	T108	1 Negative voltage power supply	Transformer, Power, step-down; primary 115v, 60 cycles secondary 20v, 1.04 amp., Federal Stock Number N5950-244-5513
T108	1 Negative voltage power supply	Transformer, Power, step-down; primary 115v, 60 cycles secondary 20v, 1.04 amp., Federal Stock Number N5950-244-5513			
70	PARTS LIST	<p>After Y206 add the following:</p> <table> <tr> <td>Z101</td> <td>1 full wave rectifier</td> <td>Rectifier, Selenium, 4SF1B2-BBG, Federal Stock Number N6130-237-0147</td> </tr> </table>	Z101	1 full wave rectifier	Rectifier, Selenium, 4SF1B2-BBG, Federal Stock Number N6130-237-0147
Z101	1 full wave rectifier	Rectifier, Selenium, 4SF1B2-BBG, Federal Stock Number N6130-237-0147			
71	PARTS LIST R408	Change "R139" to "R229"			
72	PARTS LIST	Delete entire page 72.			
73, 74	Figure 28	Paste new Figure 28 over original Figure 28			

A. READINGS TAKEN WITH VACUUM TUBE VOLTMETER (RCA - WV 97A)

	TB-103	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
KEY UP VOLTAGE		*	*	*	*	0	0	-30	0	0	0	-90	0	0	0	0	0	0	0
KEY UP RESISTANCE		INF	INF	INF	INF	4	0	40	0	INF	INF	170K	INF	180	150	0	INF	INF	INF

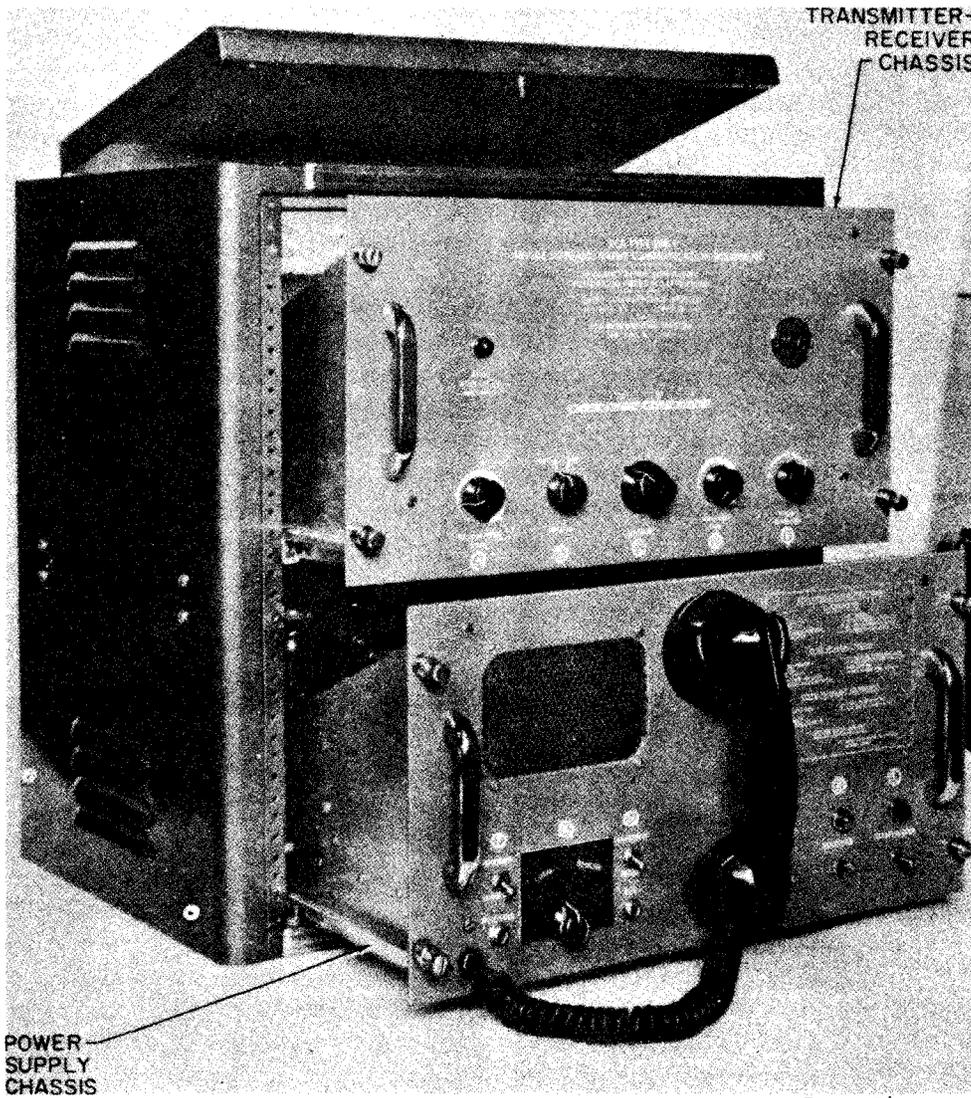
B. READINGS TAKEN WITH 20,000-OHM/VOLT OHMMETER (SIMPSON 260)

	TB-103	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
KEY UP VOLTAGE		*	*	*	*	0	0	-25	0	0	0	-85	0	0	0	0	0	0	0
KEY UP RESISTANCE		INF	INF	INF	INF	4	0	40	0	INF	INF	170K	INF	180	150	0	INF	INF	INF



Field Change 1

Figure 1. Desk Installation



Fiera Change 1

Figure 3. Cabinet Top Raised and Chassis Withdrawn

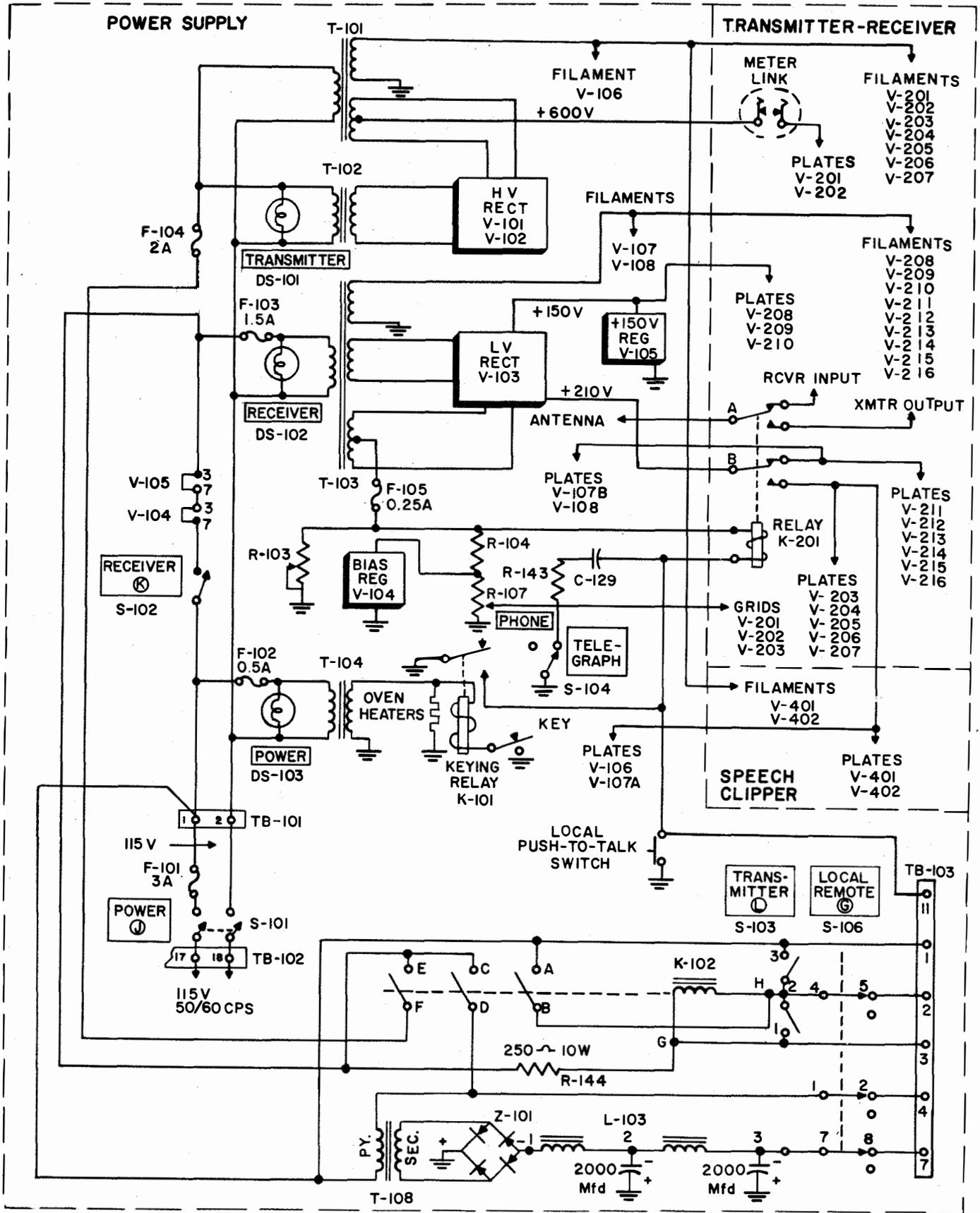
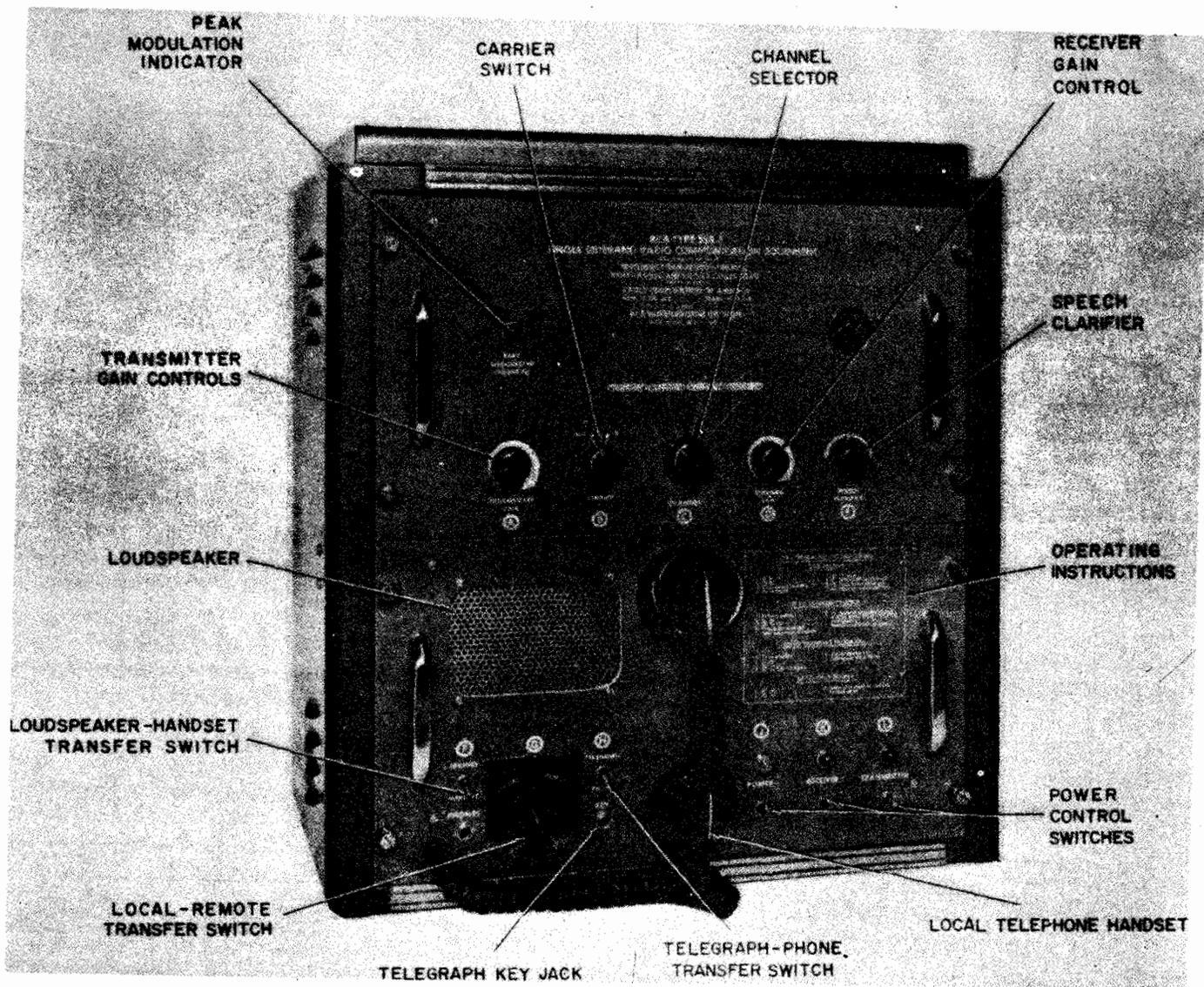
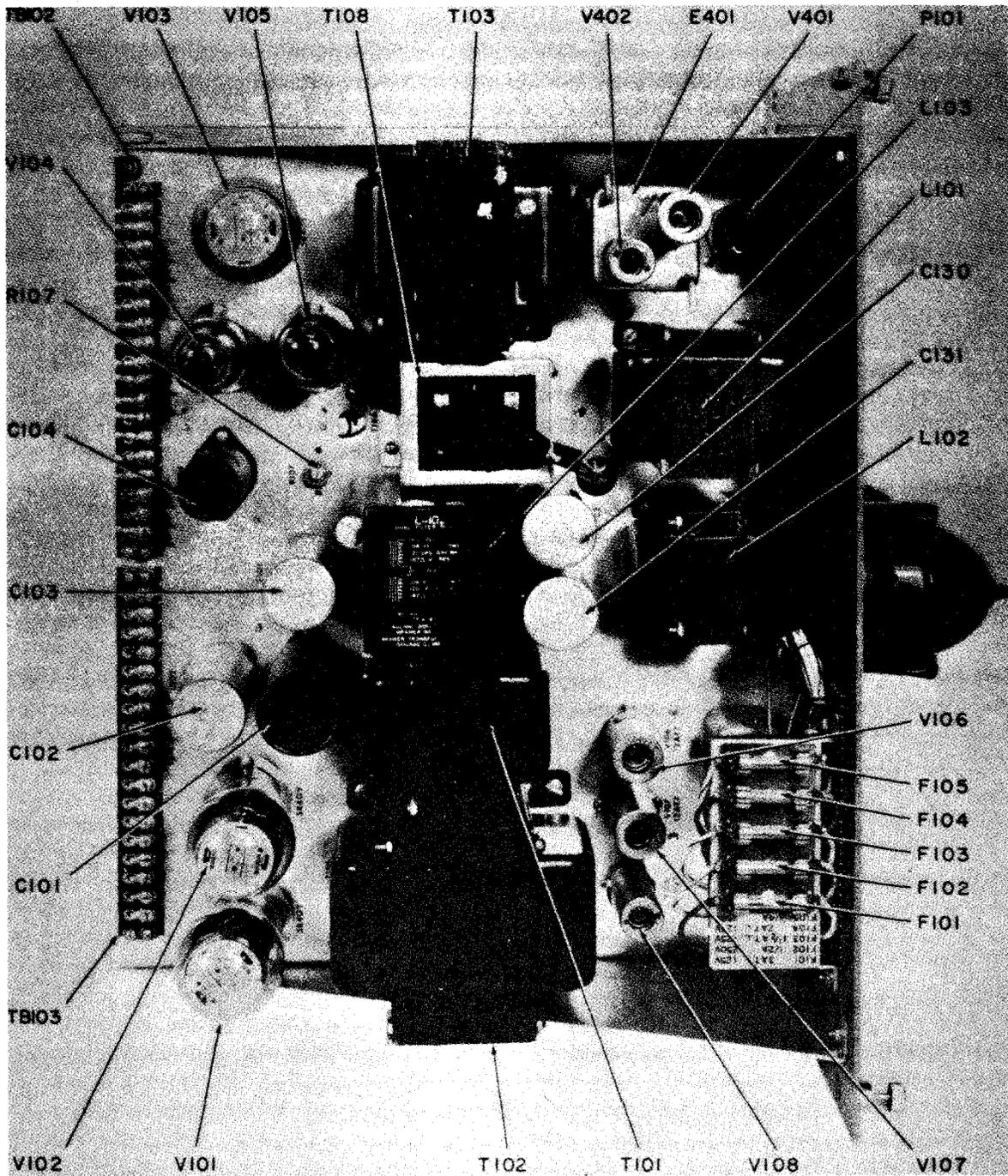


Figure 6. Power and Control Circuits



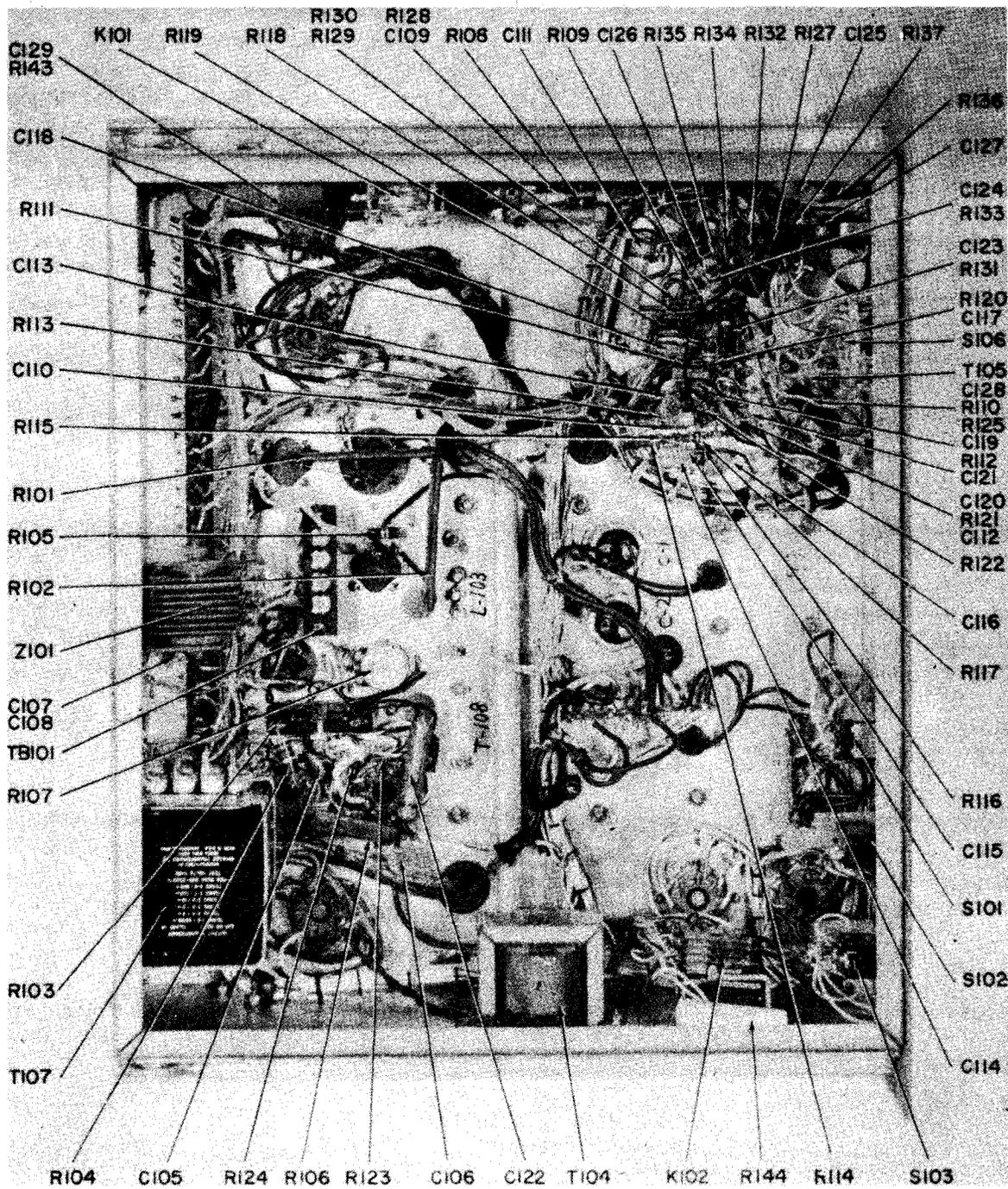
Field Change 1

Figure 10. Front Panel Controls



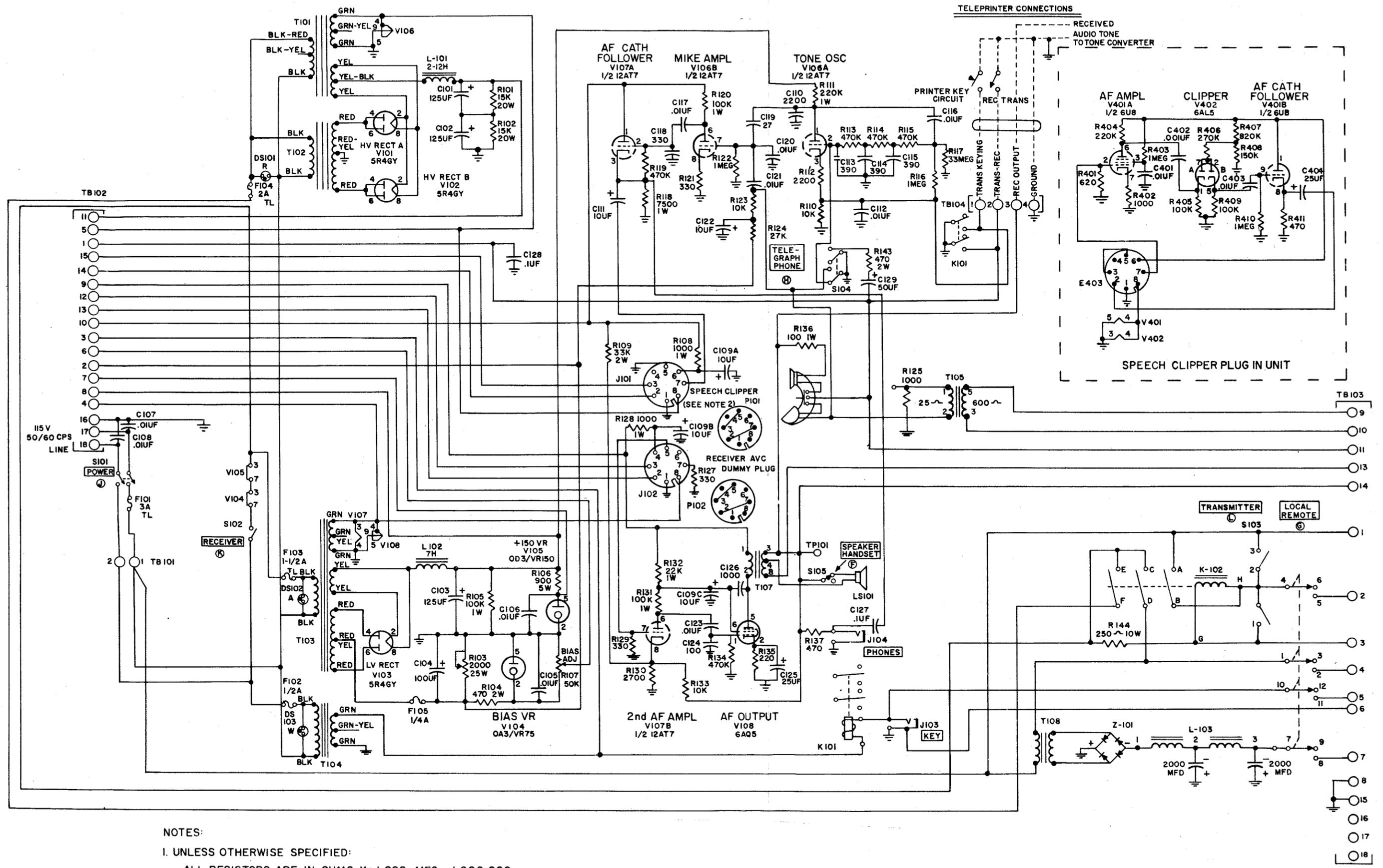
Field Change 1

Figure 16. Power Supply, Top View



Field Change 1

Figure 17. Power Supply, Bottom View



- NOTES:
- UNLESS OTHERWISE SPECIFIED:
ALL RESISTORS ARE IN OHMS K=1,000 MEG= 1,000,000
ALL CAPACITORS ARE IN MICROMICROFARAD (UUF)
 - DUMMY PLUG P101 NOT SUPPLIED. REQUIRED ONLY IF
SPEECH CLIPPER IS NOT USED.

Figure 28. Power Supply Schematic T-1

TEMPORARY CORRECTION T-2 TO TECHNICAL MANUAL FOR TYPE SSB-1 SINGLE SIDE-BAND
RADIO COMMUNICATION EQUIPMENT, NAVSHIPS 92917

Temporary Correction T-2 does not apply to the Technical Manual until Field Change No. 2-SSB-1 has been accomplished. THEREFORE - DO NOT correct the Technical Manual until the field change has been accomplished.

Field Change No. 2-SSB-1 applies to all Single Sideband Radio Communication Equipment. Its purpose is to provide satisfactory operation of the Single Sideband Radio Communications with Antenna Tuning Group AN/SRA-20.

Correct the Technical Manual with pen and ink in accordance with the following instructions. Make whatever deletions are necessary and where there is insufficient space on the given page to insert the corrective or added data, merely make the following notations along side of the affected text or diagram "See T- ".

Insert this Temporary Correction immediately after the front cover of the Manual (just before Temporary Correction T-1) as a permanent record.

<u>PAGE</u>	<u>REF.</u>	<u>CORRECTIONS TO BE MADE</u>
----	Figure 1	Paste new Figure 1 over old Figure 1 inserted by Temporary Correction T-1.
7	Figure 3	Paste new Figure 3 over old Figure 3 inserted by Temporary Correction T-1.
22	Figure 10	Paste new Figure 10 over old Figure 10 inserted by Temporary Correction T-1.
39	Figure 16	Paste new Figure 16 over old Figure 16 inserted by Temporary Correction T-1.
43	Figure 20	Paste new Figure 20 over original Figure 20.
44	Figure 21A	Paste new Figure 21A over original Figure 21A.
45	Figure 21B	Paste new Figure 21B over original Figure 21B.
58	E204	Delete in its entirety.
59	Following J201	Add "J202 - Connector, male, 11 contacts, Box Receptacle type AN3102A-20-33S; Remote Control.
59	Following J202	Add "J203 - Connector, female, Box Receptacle, R.F. Output, type UG-58/U.

<u>PAGE</u>	<u>REF.</u>	<u>CORRECTIONS TO BE MADE</u>
60	Following LS101	Add "M201 - Meter, milliammeter DC type, MF26W-300 DCMAR PA Plate current."
67	Following S201 H & I	Add "S201 J Switch, rotary, 1 section, 12 positions."
68	Following TB104	Add "TB105, Terminal Board, 2 terminals, cinch type. No. 2-141-Y."
73,74	Figure 28. Power Supply Schematic	Correct in accordance with Figure 6 of Field Change Bulletin No. 2-SSB-1, NAVSHIPS 981008.
75,76	Figure 29A. Trans/Rec Schematic	Correct in accordance with Figure 7 of Field Change Bulletin No. 2-SSB-1, NAVSHIPS 981008.
77,78	Figure 29B Trans/Rec Schematic	Correct in accordance with Figure 7 of Field Change Bulletin No. 2-SSB-1, NAVSHIPS 981008.



Field Change II

Figure 1. Desk Installation

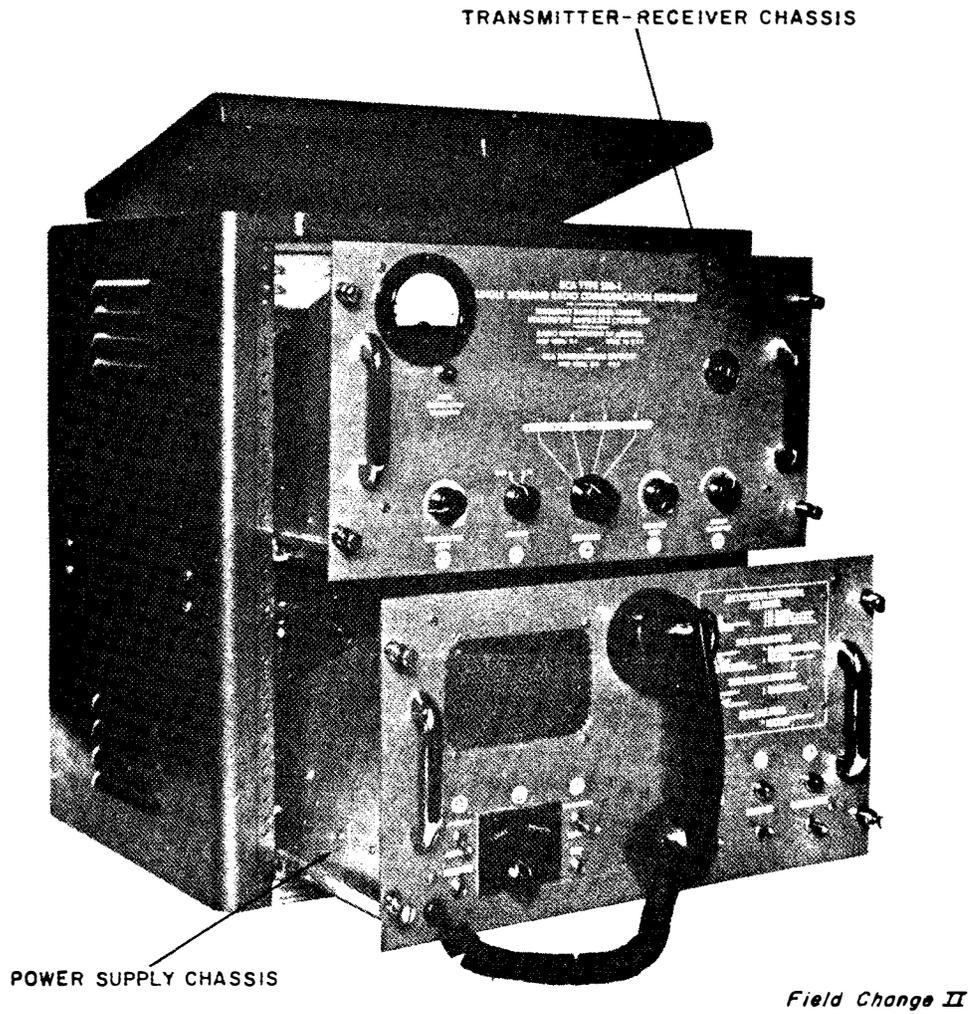


Figure 3. Cabinet Top Raised and Chassis Withdrawn

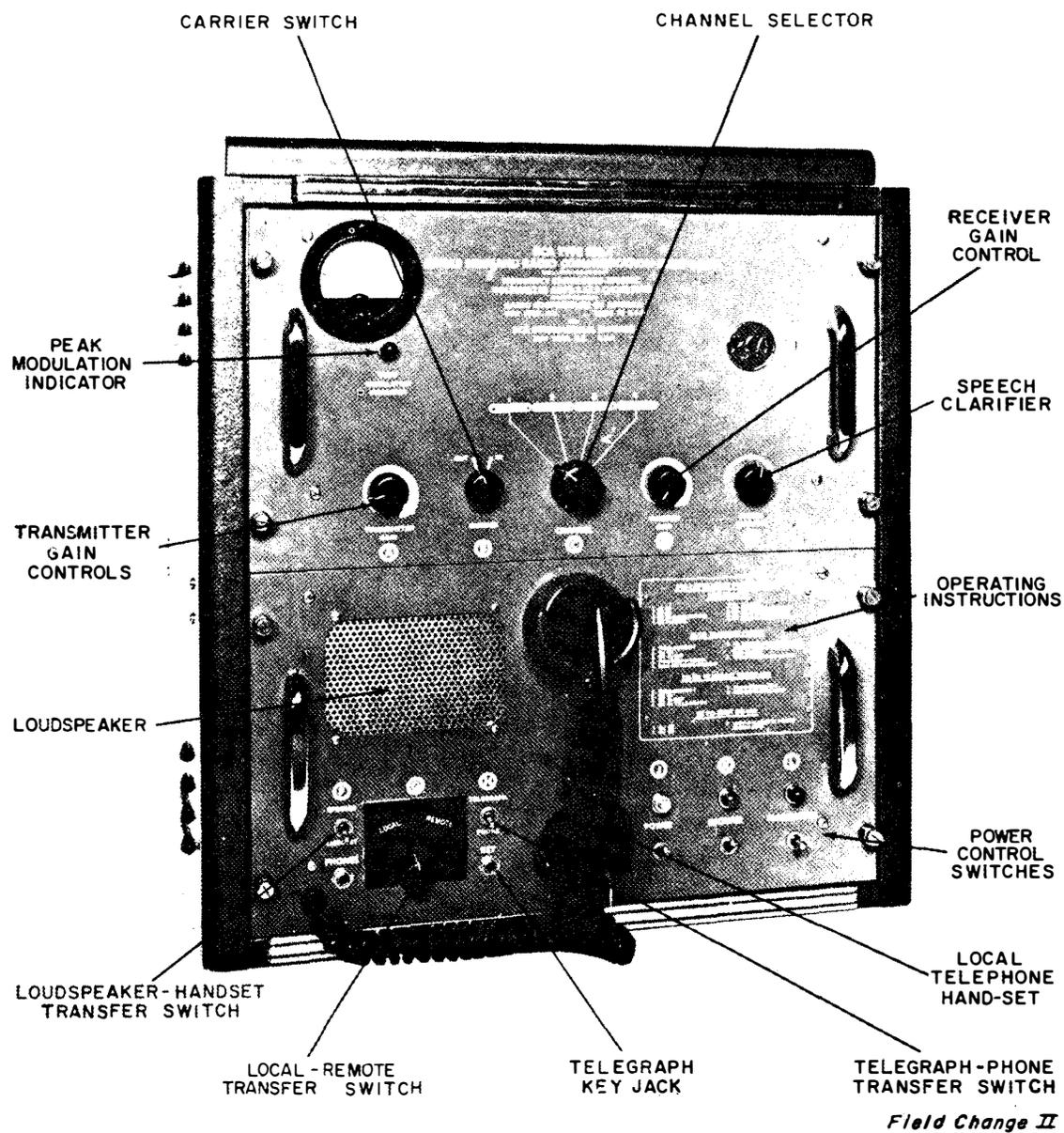
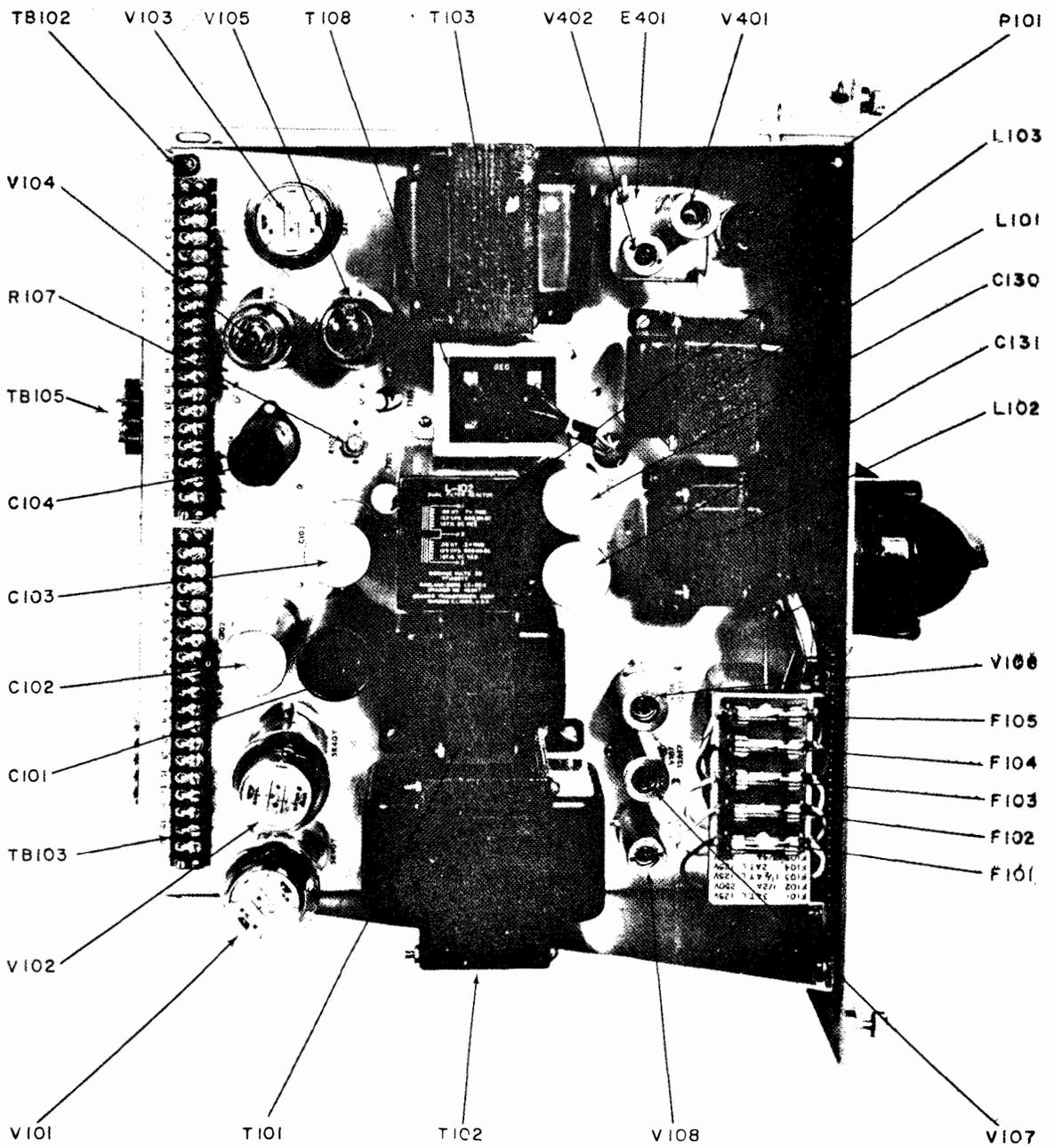


Figure 10. Front Panel Controls



Field Change II

Figure 16. Power Supply, Top View

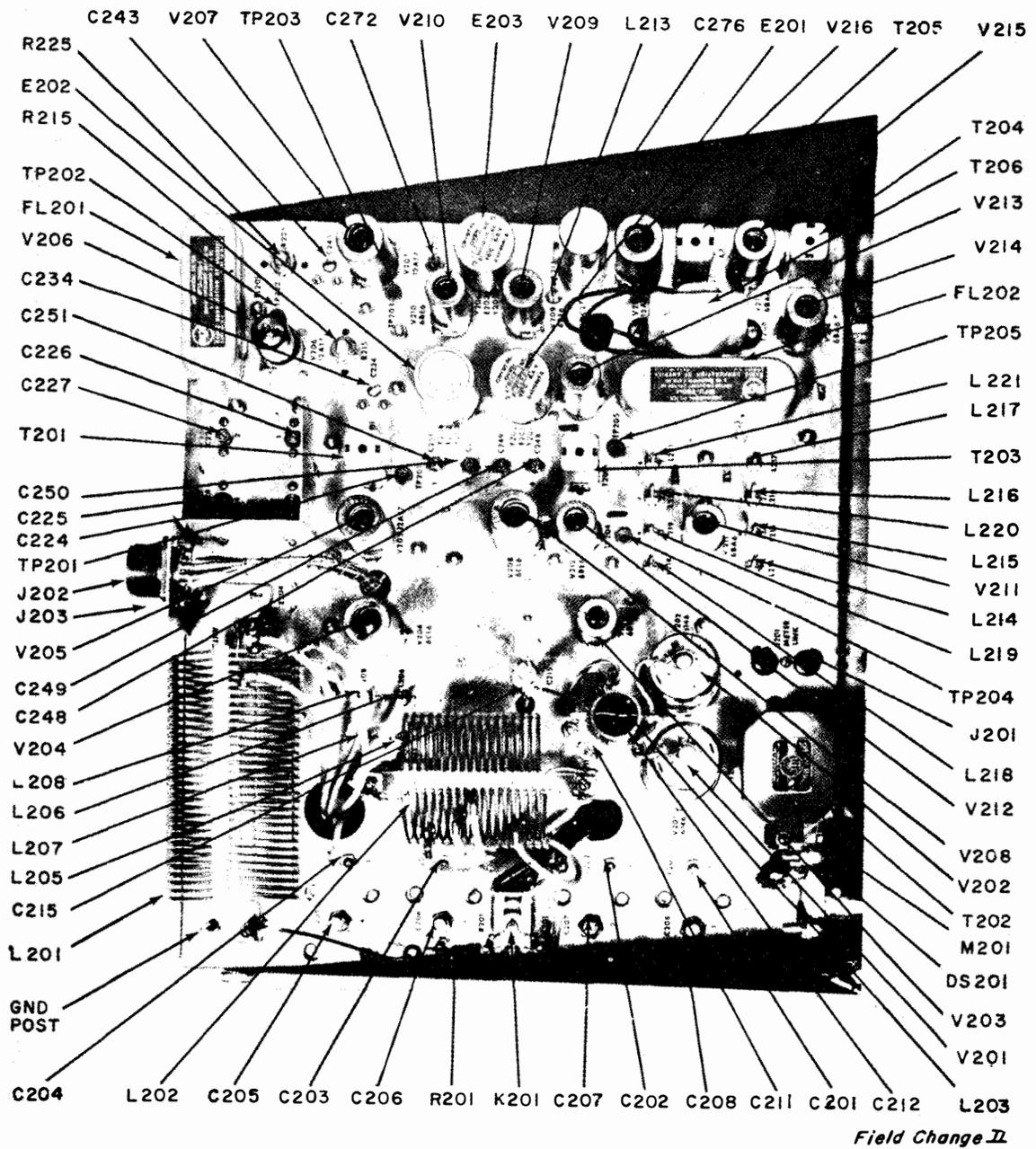
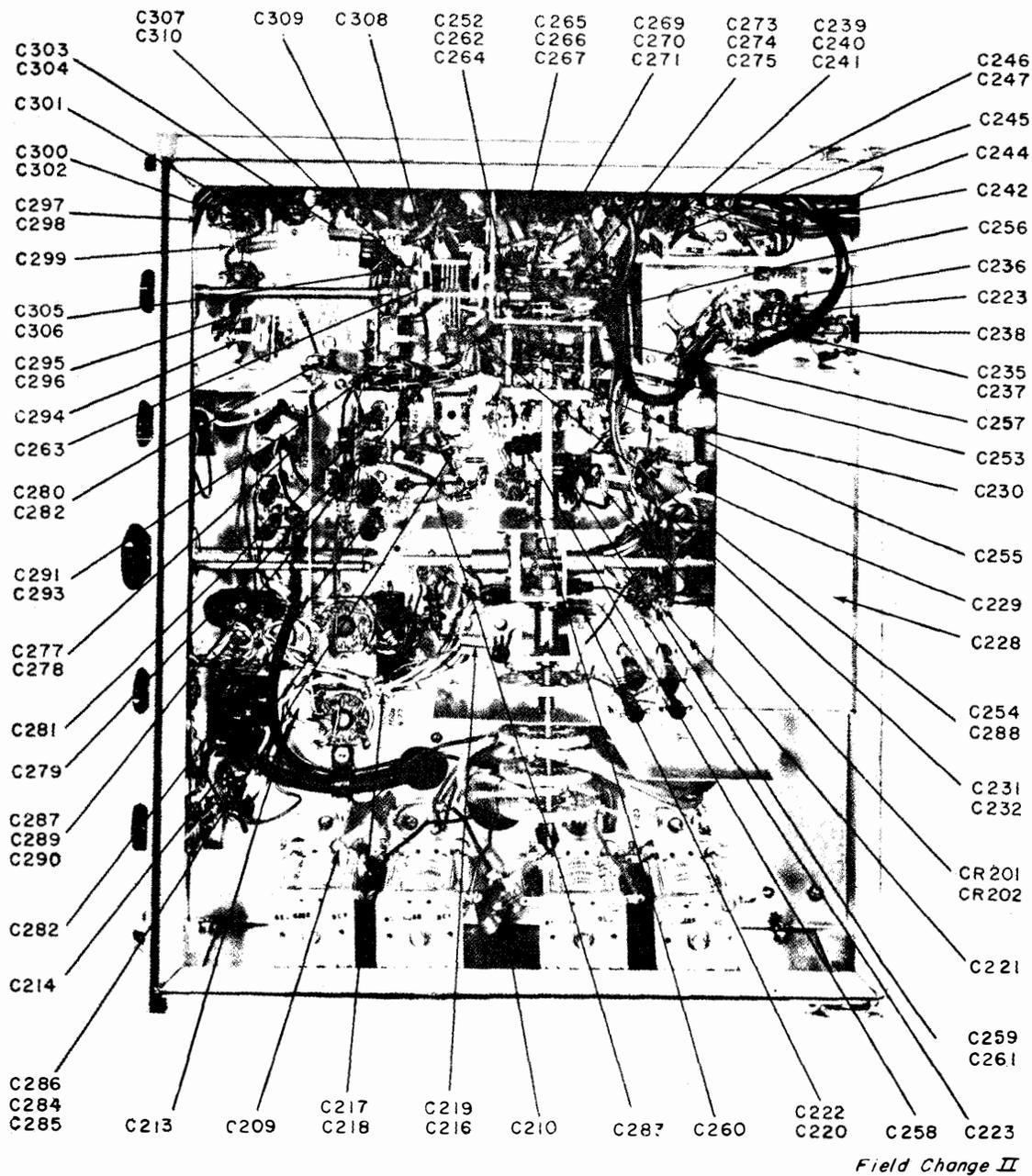


Figure 20. Transmitter-Receiver, Top View



Field Change II

Figure 21A. Transmitter-Receiver, Bottom View, Location of Capacitors

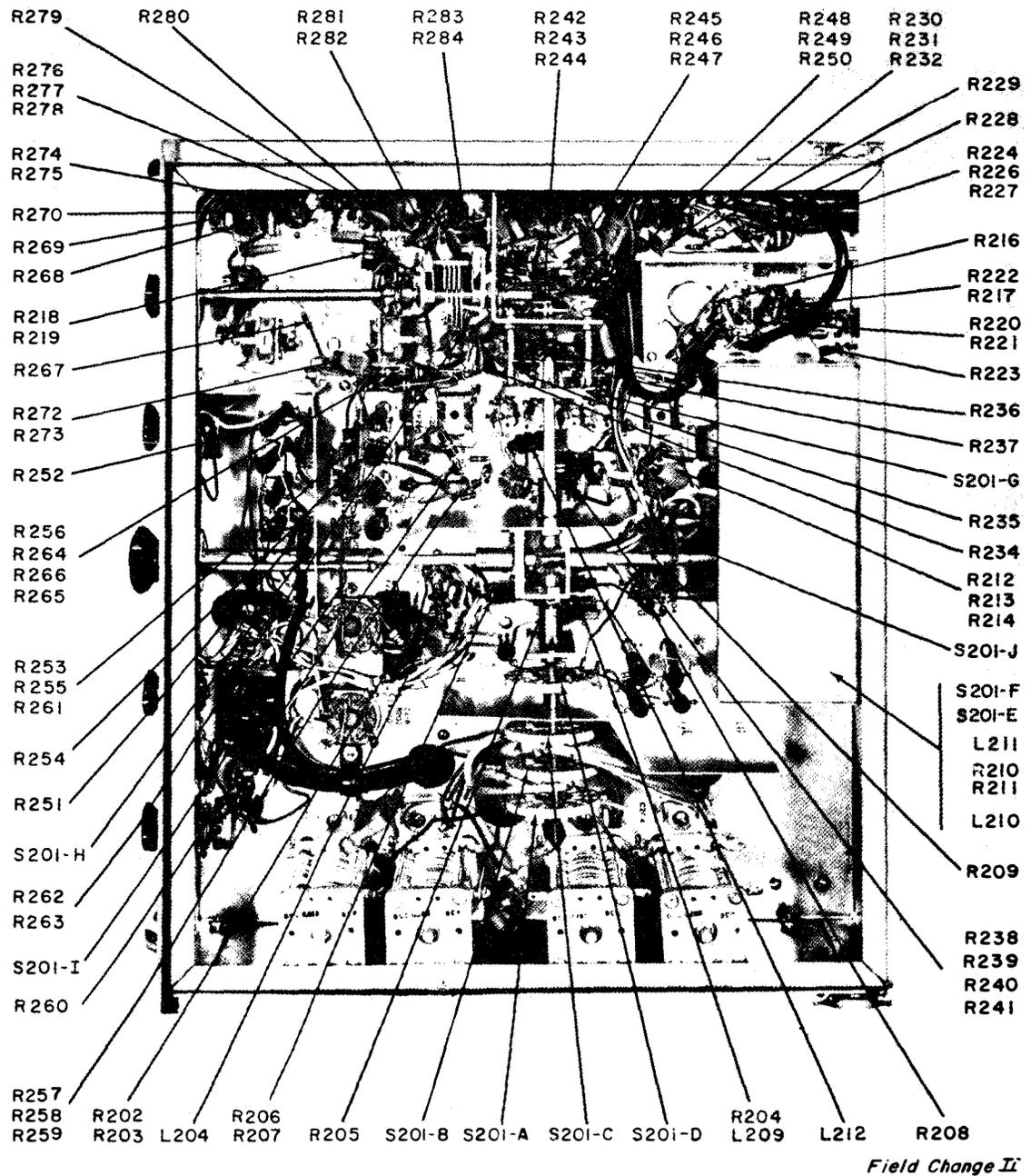


Figure 21B. Transmitter-Receiver, Bottom View, Location of Components other than Capacitors

TEMPORARY CORRECTION T-3 TO TECHNICAL MANUAL FOR TYPE SSB-1 SINGLE-SIDEBAND RADIO COMMUNICATION EQUIPMENT (NAVSHIPS 92917)

Temporary Correction T-3 does not apply to NAVSHIPS 92917 until Field Change Number 3-SSB-1 has been accomplished. Therefore DO NOT correct the Technical Manual until the field change has been accomplished.

Field Change Number 3-SSB-1 applies to all Single-Sideband Radio Communication Equipment. Its purpose is to add an AGC circuit to the equipment thereby eliminating operational difficulties and unsatisfactory communications.

Correct the Technical Manual with pen and ink in accordance with the following instructions. Make whatever deletions are necessary and where there is insufficient space on the given page to insert the corrective or added data, merely make the following notation along side of the affected text or diagram "See T-3".

Insert this Temporary Correction immediately after the front cover of NAVSHIPS 92917.

<u>PAGE</u>	<u>REFERENCE</u>	<u>CORRECTION TO BE MADE</u>
	Figure 1	Paste new Figure 1 over old Figure 1 inserted by Temporary Correction T-2.
5	<u>TUBES:</u>	Add the following to the list of Transmitter-Receiver tubes: V-217.....5726/6AL5.....AGC Diode V-218.... ..5814/12AU7.....DC Amplifier
7	Figure 3	Paste new Figure 3 over old Figure 3 inserted by Temporary Correction T-2.
8	Paragraph 6	Add the following to the end of the first subparagraph: "and the AGC circuit."
10	Figure 5	Paste new Figure 5 over original Figure 5.
14	Paragraph 4. <u>h</u> .	After Paragraph 4. <u>h</u> . add " <u>i</u> . - See T-3". The following applies: " <u>i</u> . The output of the mixer-demodulator V216A is also fed to the DC amplifier V218 (one half of a 5814/12AU7 twin-triode) of the AGC circuit, where it is amplified and fed through transformer T207 to the cathodes of V217A,B (a 5726/6AL5, twin diode). When a negative signal appears at the secondary of T207 it causes the cathode of V217A to become negative with respect to its plate and

<u>PAGE</u>	<u>REFERENCE</u>	<u>CORRECTION TO BE MADE</u>									
		V217A starts to conduct. If the AGC switch S203 is in the ON position, then this negative signal level is fed to the grids of the RF amplifier (V211), the First mixer (V212) and the Second mixer (V213), thereby lowering the bias of these tubes. When the AGC switch S203 is in the OFF position, the output of V217A is fed directly to ground.									
19	Paragraph 8. <u>i</u> .	Add the following: "Automatic Gain Control switch to OFF".									
21	Paragraph 9. <u>c</u> .	Add the following sentence: "Set the AUTOMATIC GAIN CONTROL switch to the OFF position."									
22	Figure 10	Paste new Figure 10 over old Figure 10 inserted by Temporary Correction T-2.									
23	Paragraph 2. <u>a</u> .	Change step (10) to read as follows: (10) Turn AUTOMATIC GAIN CONTROL switch M to the OFF position. Adjust RECEIVER GAIN control D for low-level background noise. If Automatic gain control is desired, turn AUTOMATIC GAIN CONTROL switch M to the ON position.									
24	TABLE 1. TRANSMITTER-RECEIVER UNIT	Add the following: <table border="0"> <tr> <td style="padding-right: 20px;">AUTOMATIC</td> <td style="padding-right: 20px;">Toggle</td> <td>Selects</td> </tr> <tr> <td>GAIN CONTROL</td> <td>switch</td> <td>AGC control.</td> </tr> <tr> <td></td> <td>(2 positions)</td> <td></td> </tr> </table>	AUTOMATIC	Toggle	Selects	GAIN CONTROL	switch	AGC control.		(2 positions)	
AUTOMATIC	Toggle	Selects									
GAIN CONTROL	switch	AGC control.									
	(2 positions)										
29	Figure 15	Paste new Figure 15 over original Figure 15.									
30	Paragraph 4. <u>c</u> .(1)	Add the following sentence: "Turn AUTOMATIC GAIN CONTROL switch to the OFF position."									
33	TABLE 2	Make additions as per TABLE 2 (page 6 of this Temporary Correction).									
43	Figure 20	Paste new Figure 20 over old Figure 20 inserted by Temporary Correction T-2.									
44	Figure 21A	Paste new Figure 21A over old Figure 21A inserted by Temporary Correction T-2.									
45	Figure 21B	Paste new Figure 21B over old Figure 21B inserted by Temporary Correction T-2.									

<u>PAGE</u>	<u>REFERENCE</u>	<u>CORRECTIONS TO BE MADE</u>
52	PARTS LIST C126	Change QUANTITY column to read "5".
56	PARTS LIST C277	Change QUANTITY column to read "4". Change LOCATING FUNCTION column to read "V211 input capacitor." Change NAME AND DESCRIPTION column to read as follows: "Capacitor, Mica, 0.01 uf, 10% , 300 WVDC, plastic body, JAN CM35B103K."
57	PARTS LIST C315	After C315 add the following: C316 1 AGC filter Capacitor, fixed paper, 0.2 uf, 10% 400 WVDC metal case plastic insulated, 1-1/4" x 0.462" diam. C317 V211 AGC bypass Same as C277 C318 V212 AGC bypass Same as C277 C319 V217A cathode bypass Same as C277 C320 T207 input tuning Same as C126
57	PARTS LIST E101	Change QUANTITY column from "8" to "9" and "7" to "8".
58	PARTS LIST E218	After E218 add the following: E219 For V217 Tube shield, JAN TS102U01. E220 For V218 Same as E101.
64	PARTS LIST R222	Change QUANTITY column to read "9".
	R234	Change QUANTITY column to read "3".
65	PARTS LIST R258	Delete all reference to R258.
	R260	Change QUANTITY column to read "3".
66	PARTS LIST	Add new Page 66A (page 7 of this Temporary Correction) between pages 66 and 67.
67	PARTS LIST S102	Change QUANTITY column to read "3".

PAGE

REFERENCE

CORRECTIONS TO BE MADE

77, 78

Figure 29B

2. Add capacitor C277 .01UF between S201H and pin 1 of V211.

3. Add AGC circuit as shown in MODIFICATION TO TRANSMITTER RECEIVER SCHEMATIC (page 8 of this Temporary Correction).

TABLE 2. TUBE SOCKET VOLTAGES

A. READINGS TAKEN WITH VACUUM TUBE VOLTMETER (RCA-WV 97A)

SYMBOL	PIN NUMBERS									CAP
	1	2	3	4	5	6	7	8	9	
V-217	+6	- 1.4	0	6.3 ac	0	-	0	-	-	-
V-218	+190	0	+7.5	6.3 ac	-	-	-	-	0	-

B. READINGS TAKEN WITH 20,000-OHMS/VOLT VOLTMETER (SIMPSON 260)

V-217	+6	-1	0	6.3 ac	0	-	0	-	-	-
V-218	+200	0	+8	6.3 ac	-	-	-	-	0	-

PARTS LIST (Cont'd)

Reference Symbol	Qty.	Locating Function	Name and Description
SSB-1		TRANSMITTER-RECEIVER UNIT	
R287	1	V218 cathode resistor	Resistor, composition, 820 ohms, +5%, 1/2W, JAN RC20BF821J.
R288	1	V217B cathode resistor	Resistor, composition, 4,300 ohms, +10%, 1/2W, JAN RC20BF432K.
R289	2	V217A diode load resistor	Resistor, composition, 10 meg, +10%, 1/2W, JAN RC20BF106K.
R290		V217B diode load resistor	Same as R289
R291	1	V217A cathode resistor	Resistor, composition, 250,000 ohms, +10%, 1/2W, JAN RC20BF254K.
R292		V217 B + divider	Same as R260
R293		V212 cathode decoupling resistor	Same as R222
R294		V211 cathode decoupling resistor	Same as R222
R295		V212 cathode resistor	Same as R222
R296		V211 cathode resistor	Same as R222

66A

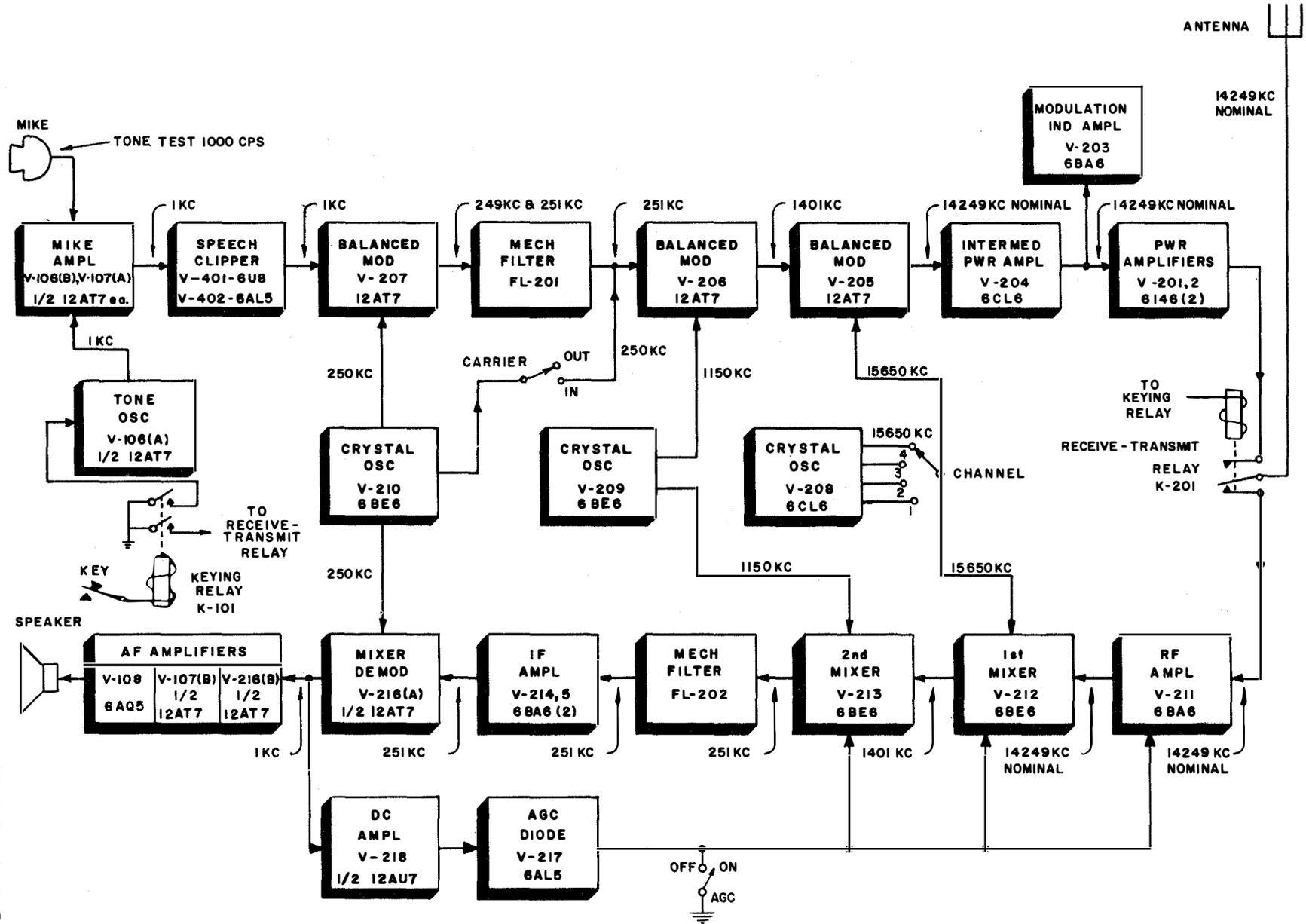
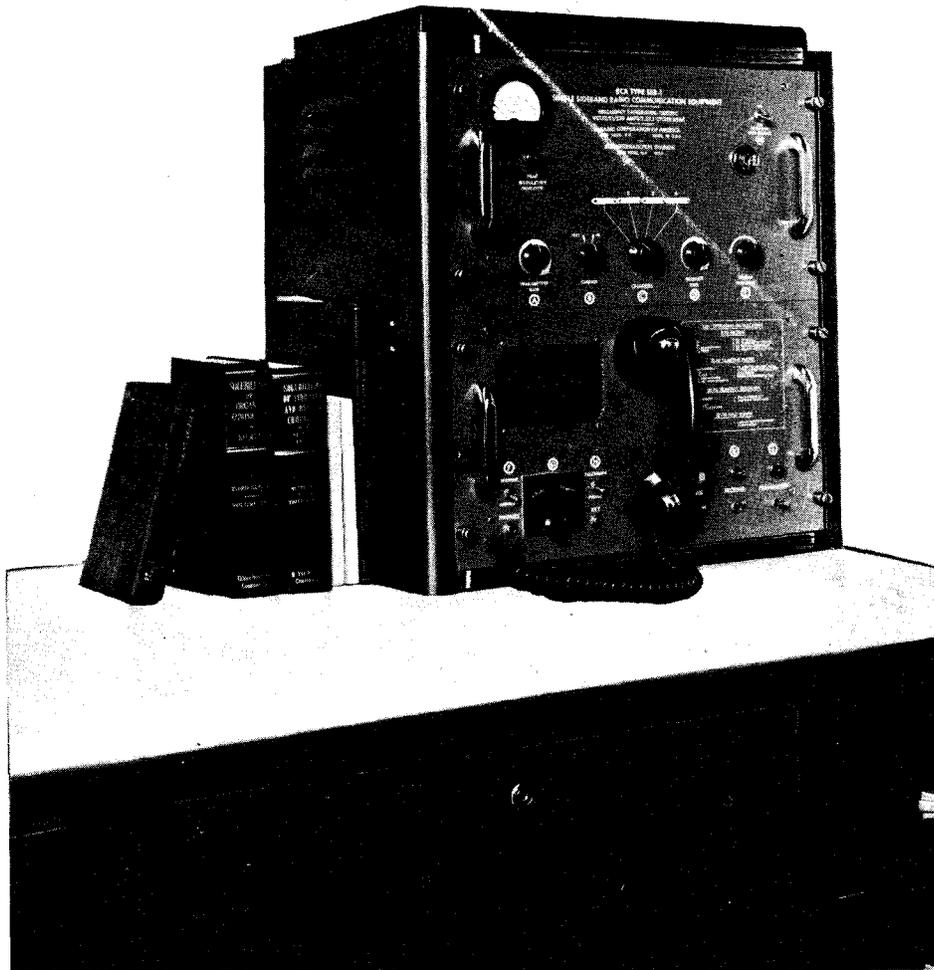


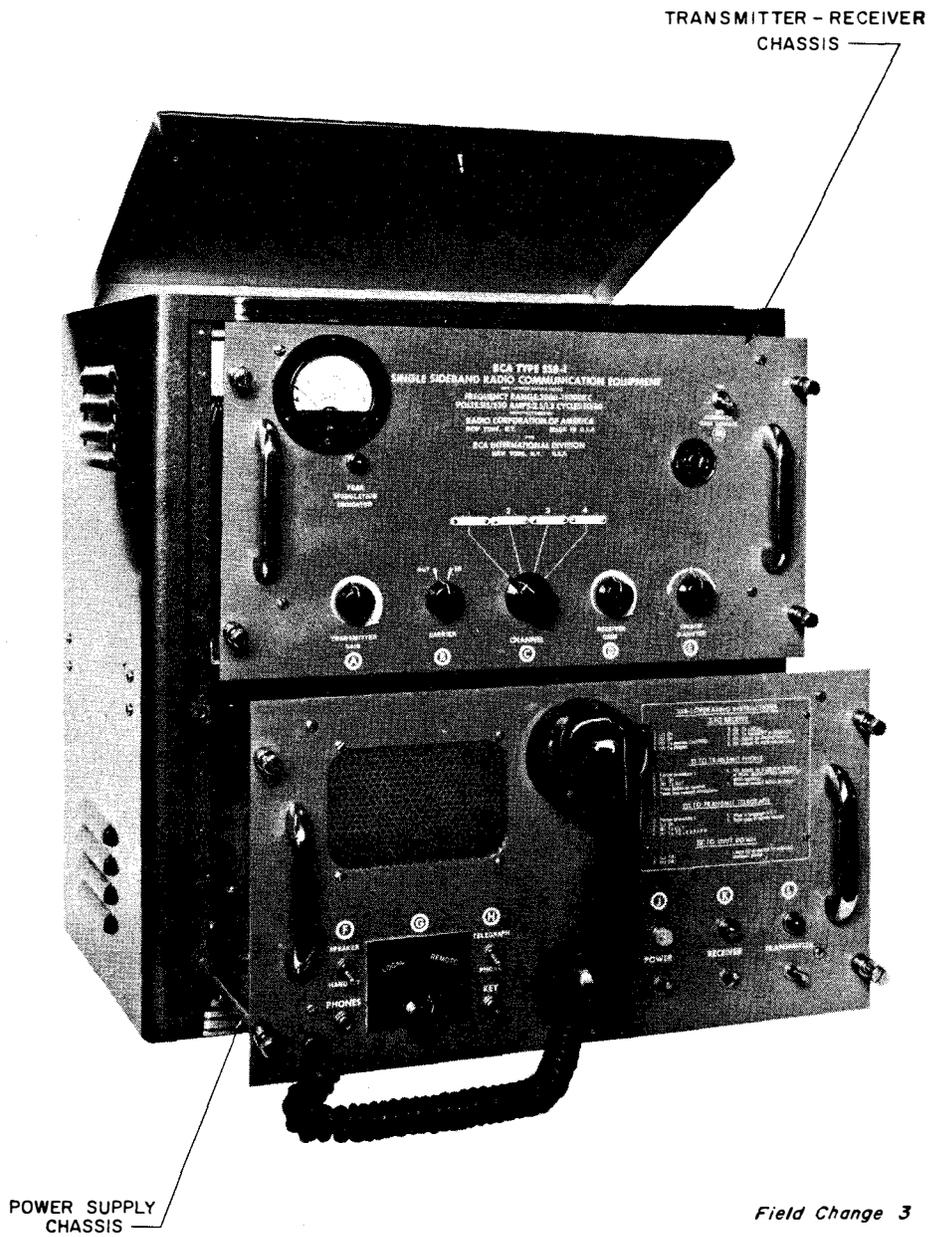
Figure 5. Block Diagram

FIELD CHANGE 3



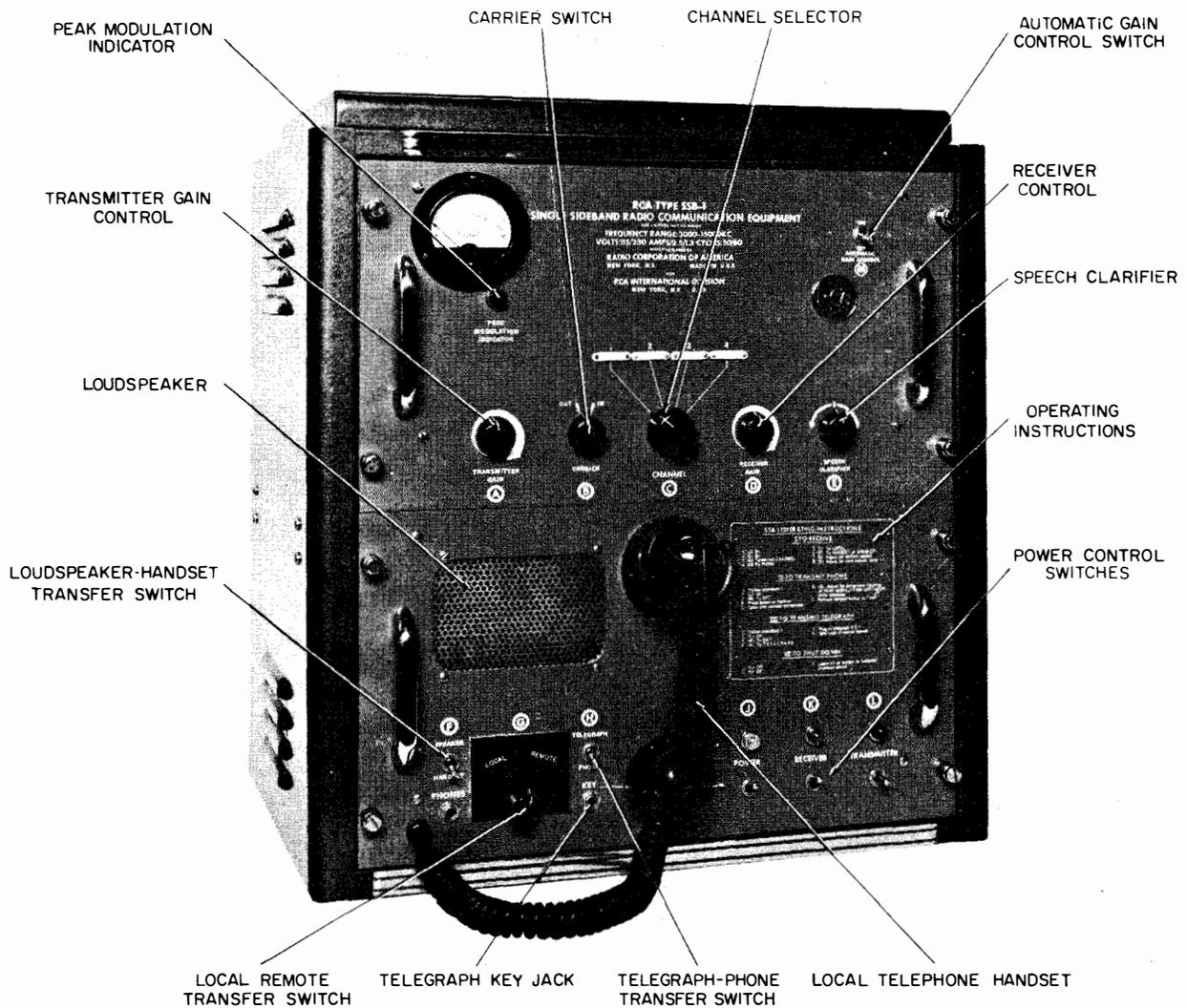
Field Change 3

Figure 1. Desk Installation



Field Change 3

Figure 3. Cabinet Top Raised and Chassis Withdrawn



Field Change 3

Figure 10. Front Panel Controls

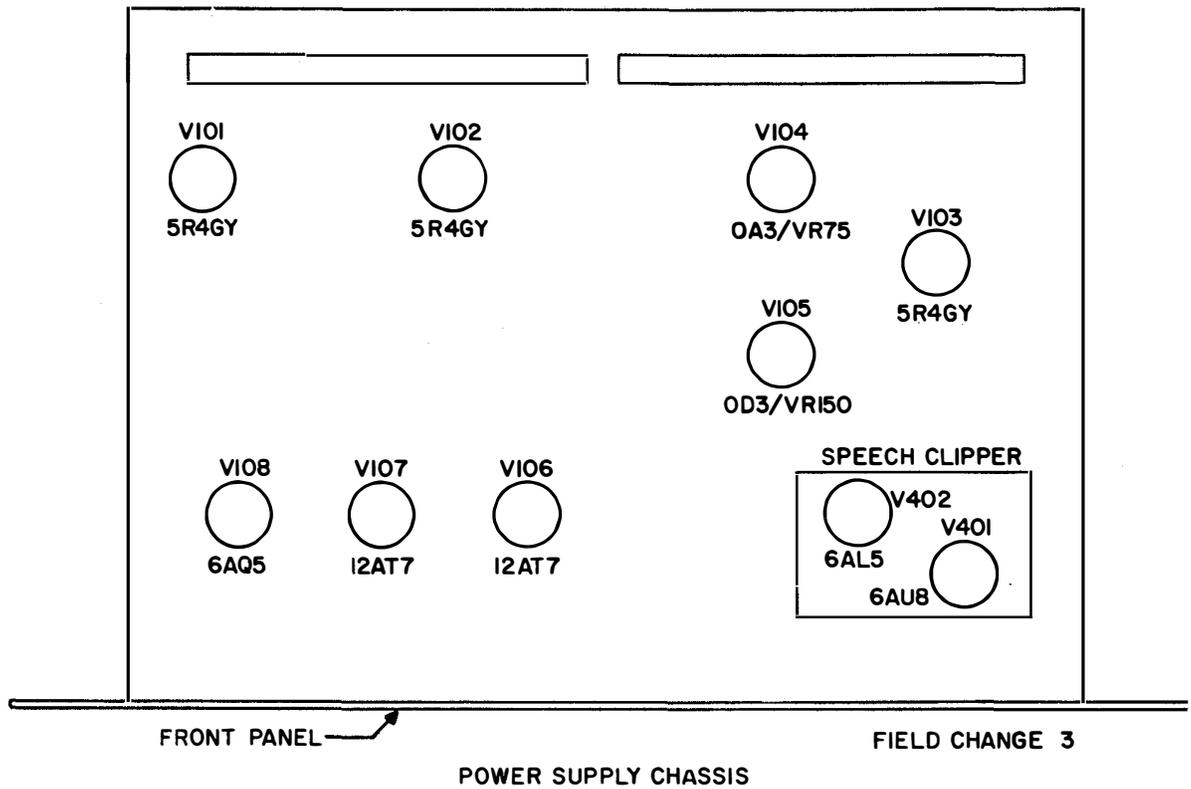
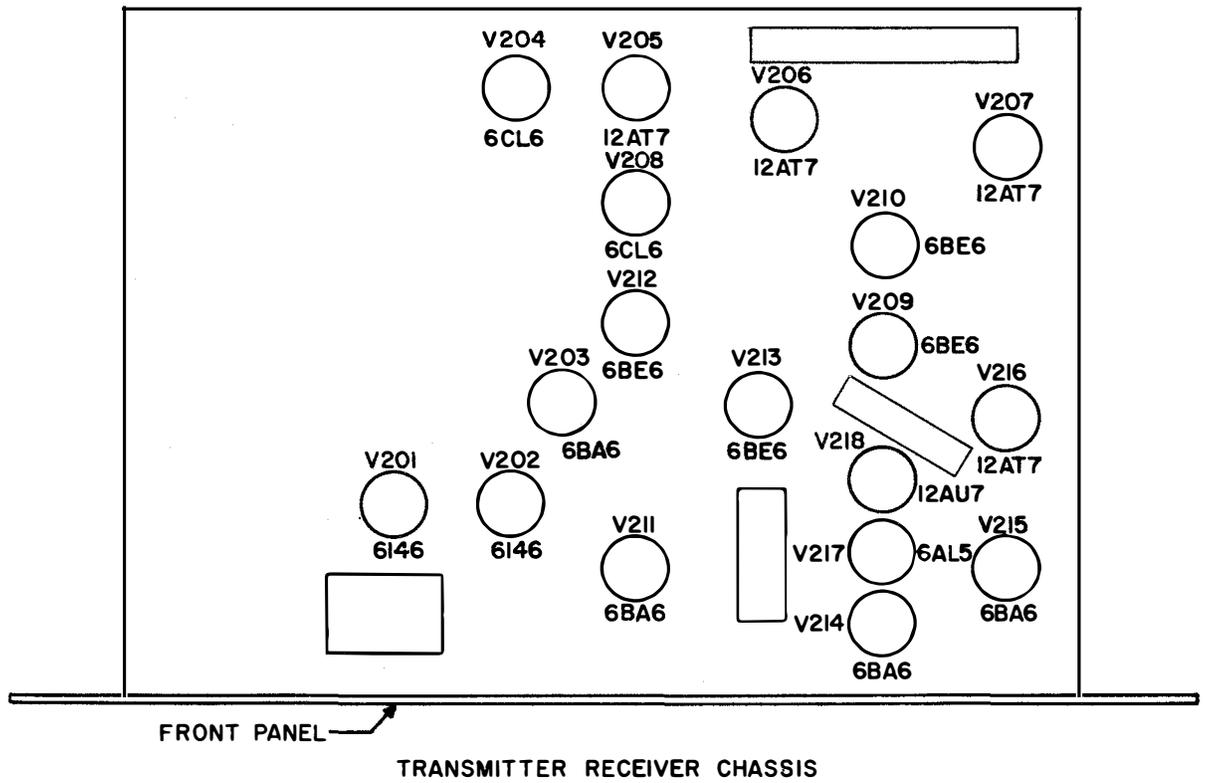


Figure 15. Tube Location Diagram

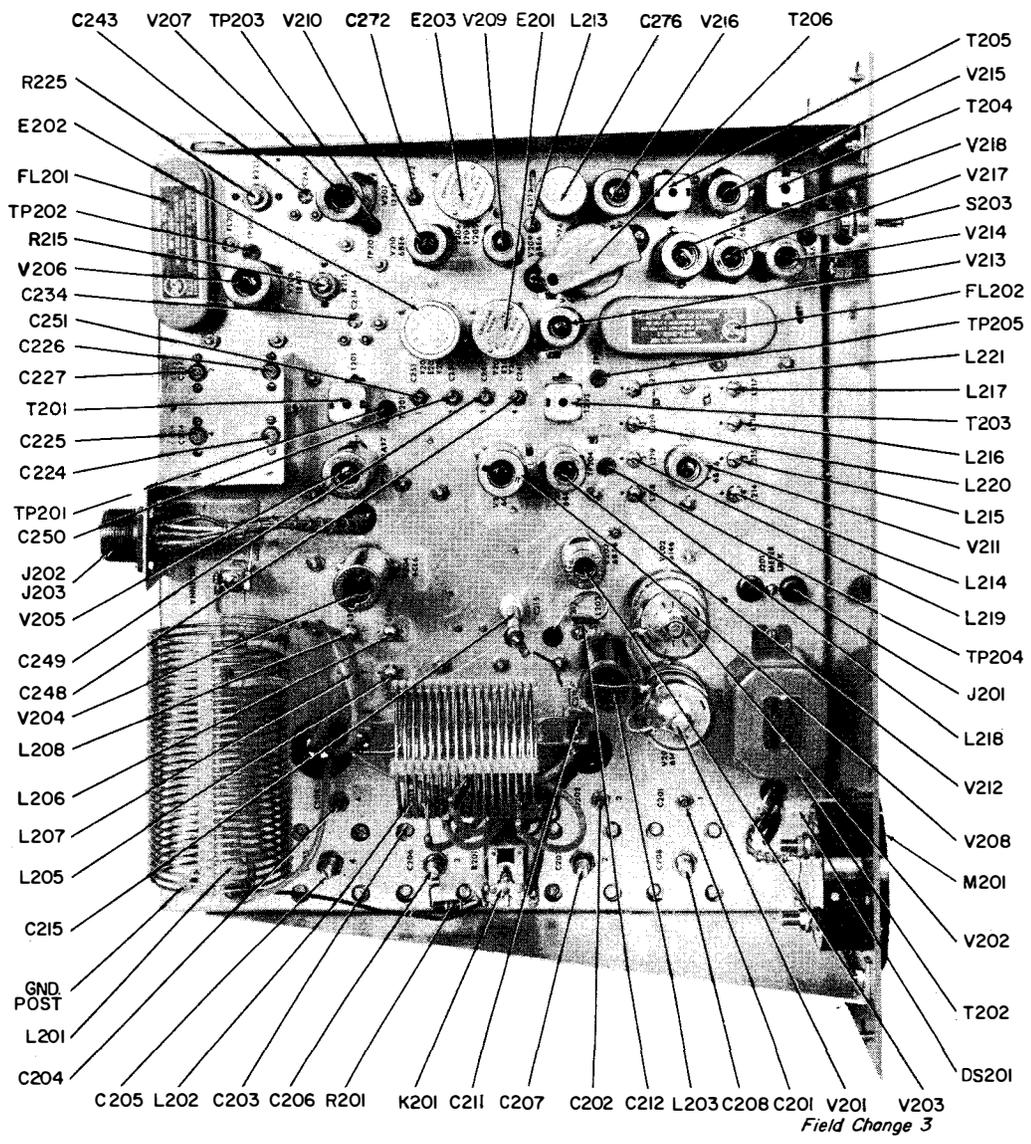


Figure 20. Transmitter-Receiver, Top View

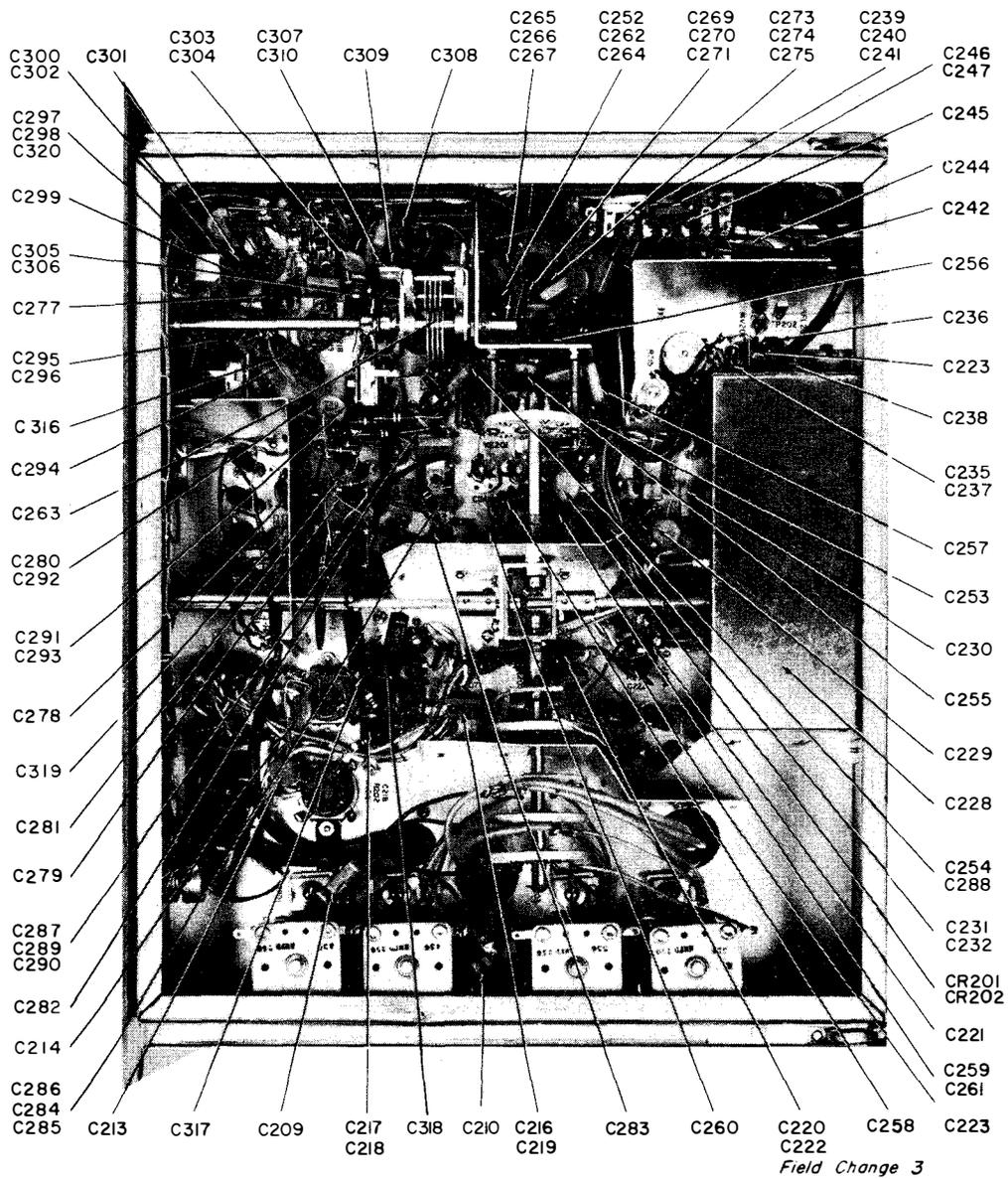


Figure 21A. Transmitter-Receiver, Bottom View, Location of Capacitors

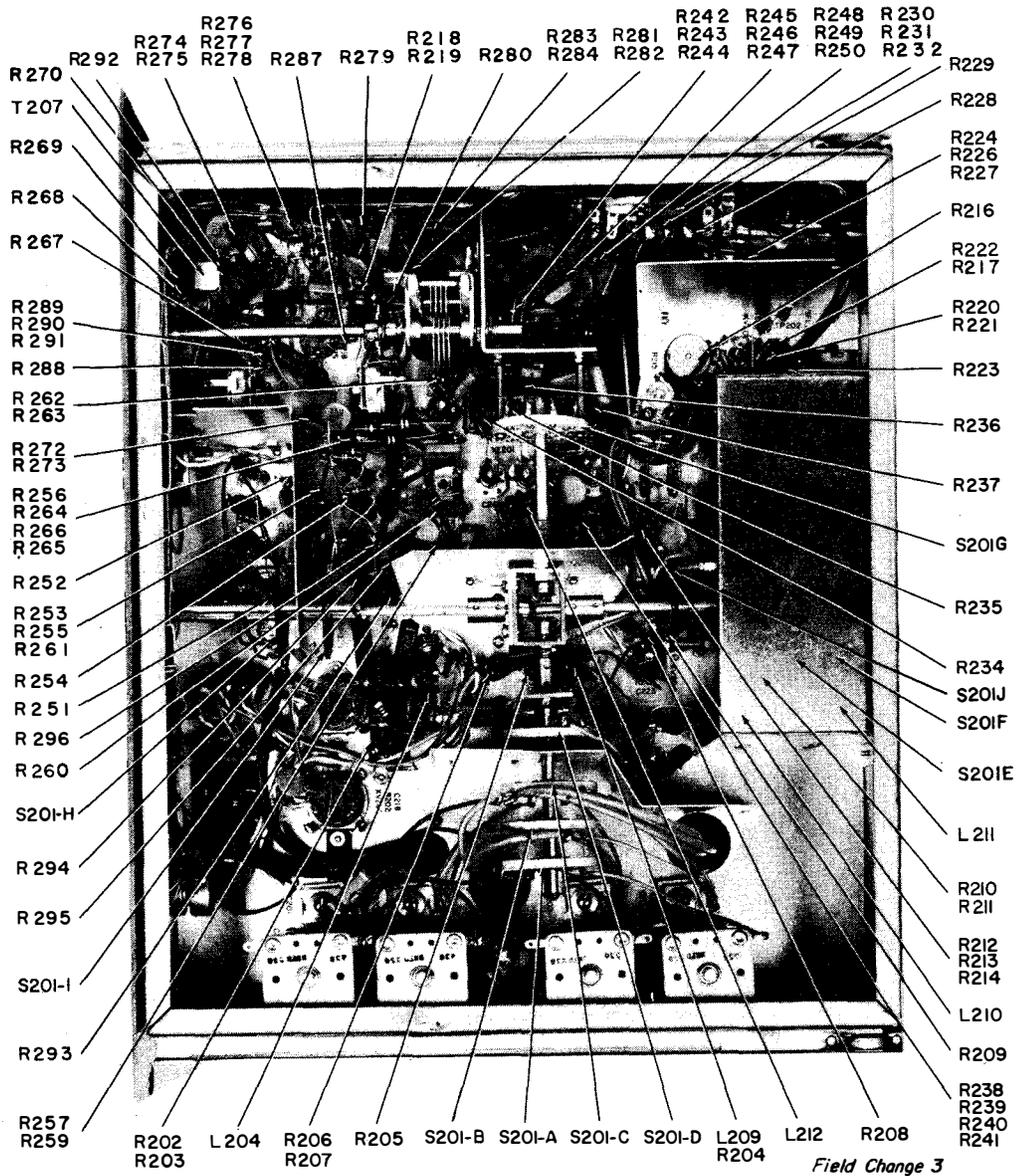


Figure 21B. Transmitter-Receiver, Bottom View, Location of Components other than Capacitors

T-4 TO NAVSHIPS 92917

NOVEMBER 1958

TEMPORARY CORRECTION T-4 TO TECHNICAL MANUAL FOR TYPE SSB-1 SINGLE-SIDEBAND RADIO
COMMUNICATION EQUIPMENT

Temporary Correction T-4 does not apply to NAVSHIPS 92917 until Field Change No. 4-SSB-1 has been accomplished. Therefore, DO NOT correct the Technical Manual until the field change has been accomplished.

Field Change Number 4-SSB-1 applies to all Single-Side Band Communication Equipment type SSB-1 manufactured by the Radio Corporation of America (RCA). Its purpose is to provide safety features to the equipment which present hazards to operating personnel.

Correct the Technical Manual with pen and ink in accordance with the following instructions. Make whatever deletions or insertions that are necessary and where there is insufficient space on a given page to insert the corrective or added data, make the following notation along side of the affected text or diagram; "See T-4".

Insert this Temporary Correction immediately after the front cover of NAVSHIPS 92917 (just before Temporary Correction T-3) as a permanent record.

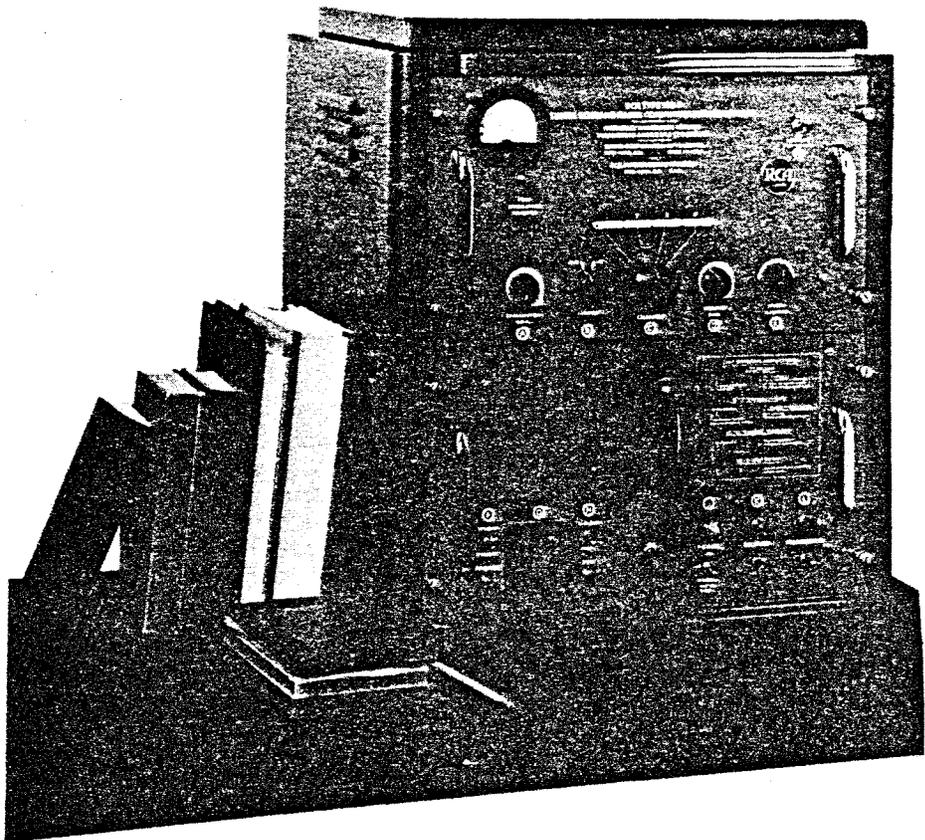
<u>PAGE</u>	<u>REFERENCE</u>	<u>CORRECTIONS TO BE MADE</u>
	Figure 1	Paste new Figure 1 (supplied with this Temporary Correction) over old Figure 1 inserted by Temporary Correction T-3.
13	Figure 6	Paste new Figure 6 (supplied with this Temporary Correction) over old Figure 6 inserted by Temporary Correction T-1.
14	Section II Para. 5 <u>b</u>	Change Para. 5 <u>b</u> to read: "Turning power switch S-100 <u>on</u> , energizes transformer T-104 by way of the cabinet interlock switches and J-208. T-104 then applies power to the crystal oven heaters and keying relay K-101 etc.....".
14	Section II Para. 5 <u>e</u>	Change first sentence to read: "The connections to the switches are such that when the power switch or any of the interlock switches are off, or if J-208 and P-208 are not properly mated, the entire equipment is de-energized, regardless of the positions of the other switches."
14	Section II Para. 5	Add Sub. Para. <u>H</u> : "The interlock circuit is wired in such a manner that the three interlock switches are wired into one half of the AC line through P-208, which is mounted on the back of the cabinet directly behind the power supply chassis. J-208 on the power supply chassis mount must mate with P-208 or the interlock circuit will not be complete. To operate the equipment with the power supply partly removed from the cabinet, place the power switch into battle short position, thus disabling the interlock system."

<u>PAGE</u>	<u>REFERENCE</u>	<u>CORRECTIONS TO BE MADE</u>
15	Section III Para. 5	Change "Terminal board TB-103" to read "J-205", and change "Terminals 9 and 10" to read "Terminals A and B of J-207".
21	Section III Para. 10	Change "Terminal board TB-104" to read "J-206".
22	Figure 10	Paste new Figure 10 (supplied with this Temporary Correction) over old Figure 10 inserted by Temporary Correction T-3.
24	TABLE 1 - POWER SUPPLY UNIT	Power "J", column 2, change "2" to "3". Column 3, change first sentence to read; "In on position, line power is brought thru the interlocks into power supply". Add "In battle short position the interlocks are disabled".
30	Section V Para. 4 <u>a</u>	Change "TB-102" to read "J-204"
31	Section V Para. 4 <u>d</u> (11)	Change "14 and 15 of TB-102" to read "2 and 3 of J-101". (This is done by removal of the speech clipper plug-in-unit).
32	Section V Para. 4 <u>d</u> (27)	Change "14 and 15 of TB-102" to read "2 and 3 of J-101".
32	Section V Para. 4 <u>d</u> (28)	Change "14 and 15 of TB-102" to read "2 and 3 of J-101".
39	Figure 16	Paste new Figure 16 (supplied with this Temporary Correction) over old Figure 16 inserted by Temporary Correction T-2.
40	Figure 17	Paste new Figure 17 (supplied with this Temporary Correction) over old Figure 17 inserted by Temporary Correction T-1.
43	Figure 20	Paste new Figure 20 (supplied with this Temporary Correction) over old Figure 20 inserted by Temporary Correction T-3.
59	PARTS LIST	After "J-203" add the following: J-204 1 socket: interchassis 24 pin barrier polarization type with keyed shell. Amphenol type: No. 26-4401-24P.

<u>PAGE</u>	<u>REFERENCE</u>	<u>CORRECTIONS TO BE MADE</u>
59	PARTS LIST	After "J-204" add the following: J-205 1 socket: remote 14 contact box receptacle; Amphe- nol type: No. AN- 3102A-20-27P
59	PARTS LIST	After "J-205" add the following: J-206 1 socket: TTY 4 contact box receptacle; Amphe- nol type: No. AN- 3102A-18-4P
59	PARTS LIST	After "J-206" add the following: J-207 1 socket: audio input 2 contact box receptacle; Amphe- nol type: No. AN- 3102A-10SL-4P
59	PARTS LIST	After "J-207" add the following: J-208 1 socket: interlock 2 contact, with angle brackets, Cinch-Jones No. S-302-AB
59	PARTS LIST	After "J-208" add the following: J-209 1 socket: AC input 3 contact, box receptacle; Amphe- nol type: No. AN- 3102A-14S-7P
60	PARTS LIST	After "LS-101" add the following: O-201 2 ea plate caps Insulated plate cap; O-202 Same as O-201
61	PARTS LIST	After "P-202" add the following: P-203 1 plug; AC input 3 contact, straight plug; solid shell Amphenol type No. AN-3106A-14S-7S
61	PARTS LIST	After "P-203" add the following: P-204 1 plug: interchassis 24 pin barrier pola- rization type with latch-type keyed shell. Amphenol type No. 26-4501- 24S.

<u>PAGE</u>	<u>REFERENCE</u>	<u>CORRECTIONS TO BE MADE</u>
61	PARTS LIST	After "P-204" add the following: P-205 1 plug: remote 14 contact, straight plug, solid shell. Amphenol type No. AN 3106A-20-27S.
61	PARTS LIST	After "P-205" add the following: P-206 1 plug: TTY, connect 4 contact, straight plug solid shell. Amphenol type No. AN-3106A-18-4S
61	PARTS LIST	After "P-206" add the following: P-207 1 plug: audio input 2 contact, straight plug solid shell. Amphenol type No. AN-3106A-10SL-4S
61	PARTS LIST	After "P-207" add the following: P-208 1 plug; interlock 2 contact plug, with angle brackets. Cinch-Jones No. P-302-AB
67	PARTS LIST S-101	Change "Name and Description" column to read as follows: "Switch, toggle, DPDT, center off, Cutler Hammer type 7563L. Delete entry in "Stock Number" column.
67	PARTS LIST	After "S-106" add the following: S-107 3 interlocks Switch, sensitive, rod type actuated. Microswitch Co. No. 2AC6
67	PARTS LIST	Add Interlock "S-108" Same as "S-107"
67	PARTS LIST	Add Interlock "S-109" Same as "S-107"
67	PARTS LIST	Delete all reference to TB- 02, TB-103, TB-104, and TB-105.
67	PARTS LIST	Add the following after TB-101 TB-201 1 terminal strip Cinch-Jones No. 56A TB-202 1 terminal strip Cinch-Jones No. 56 TB-203 1 terminal strip Cinch-Jones No. 53E TB-204 3 terminal strips Cinch- Jones No. 51A TB-205 Same as TB-204 TB-206 Same as TB-204

<u>PAGE</u>	<u>REFERENCE</u>	<u>CORRECTIONS TO BE MADE</u>
70	PARTS LIST	Add the following after Z-101: 1 alligator clip, insulated 1 stand-off, insulated Precision Metal No. Serial 5000, lug 100
73-74	Figure 28	Paste new Figure 28 (supplied with this Temporary Correction) over old Figure 28 inserted by Temporary Correction T-2.



Field Change IV

Figure 1. Desk Installation

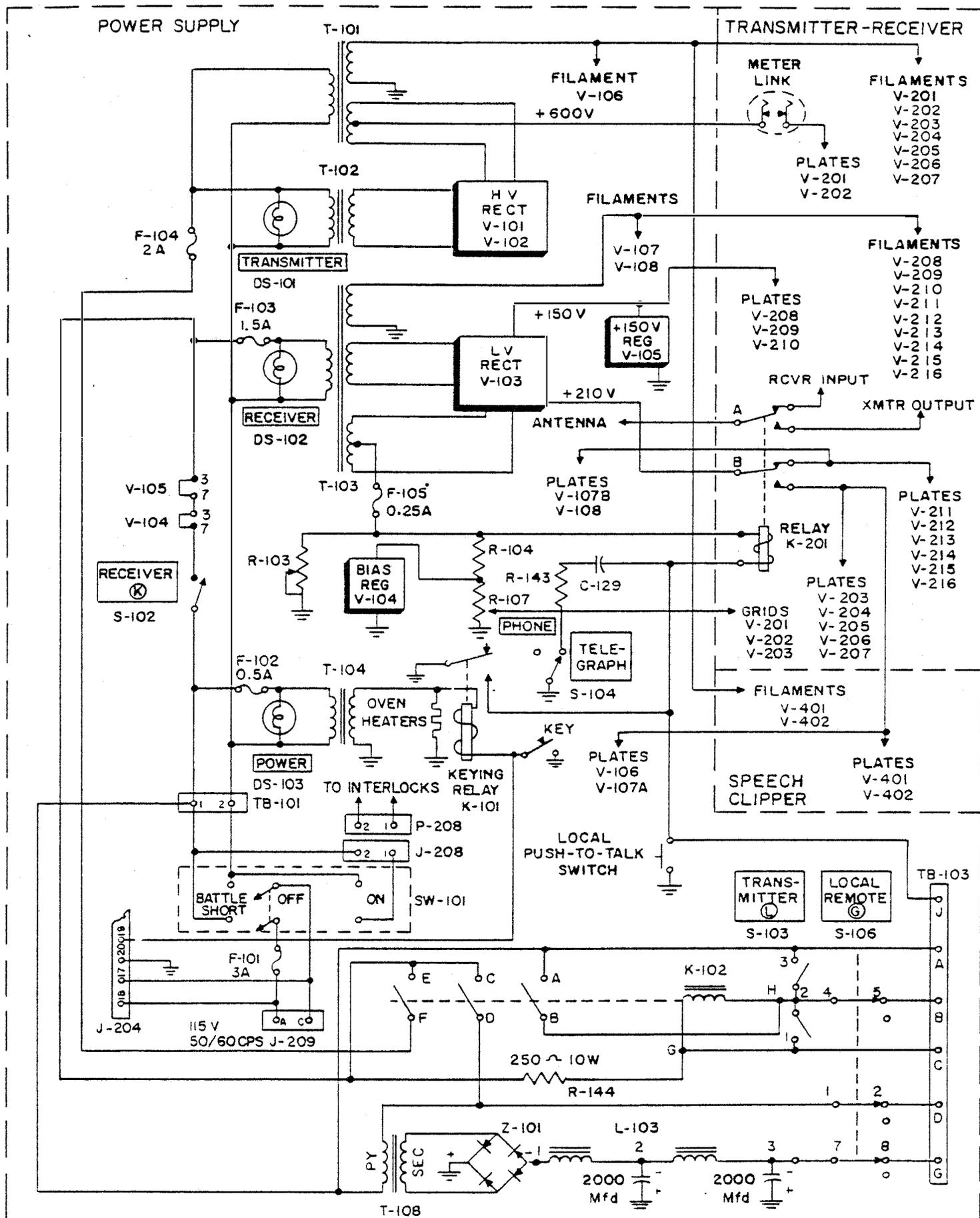


Figure 6. Power and Control Circuits

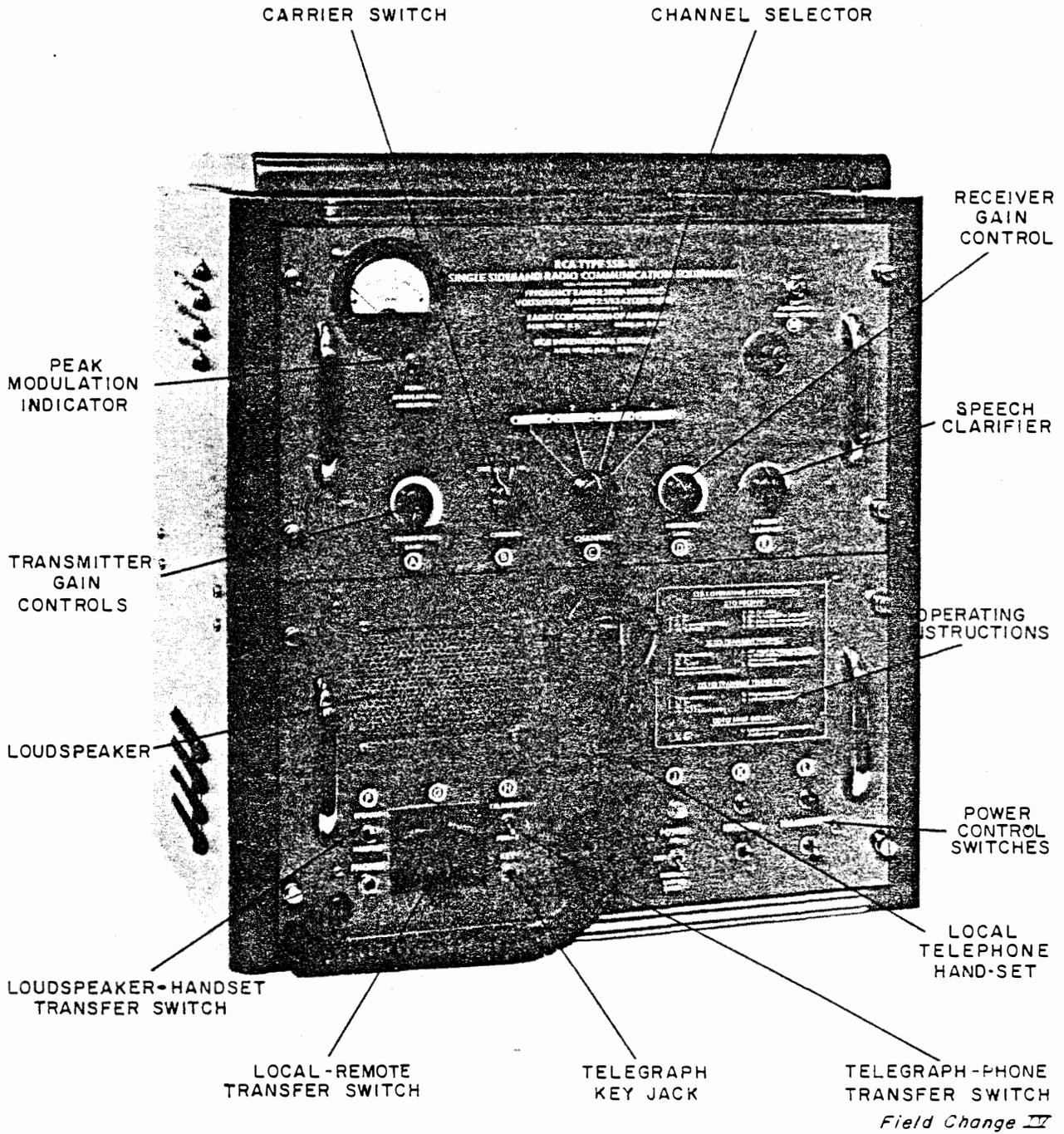
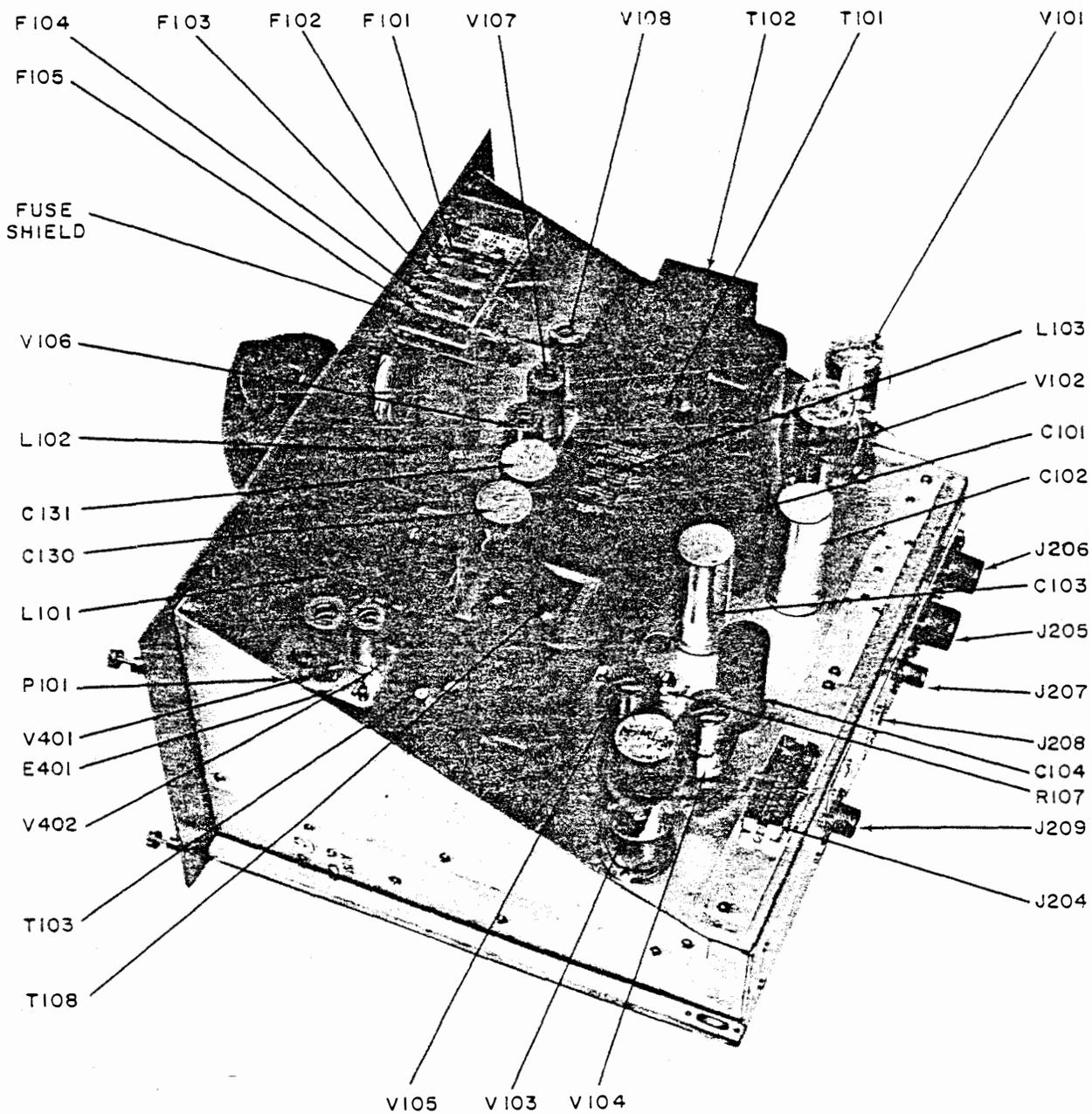


Figure 10. Front Panel Controls



Field Change IV

Figure 16. Power Supply, Top View

13
14

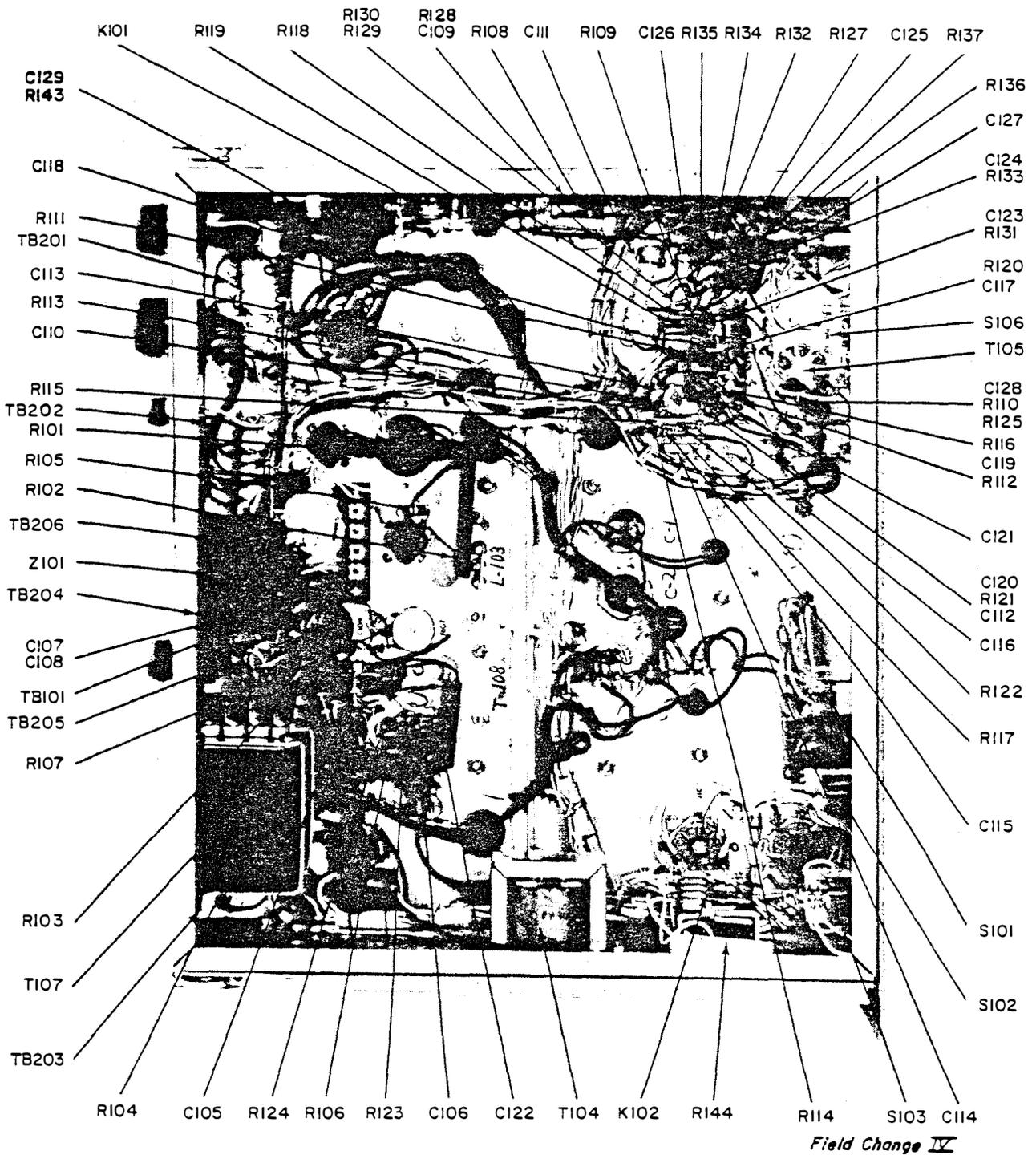
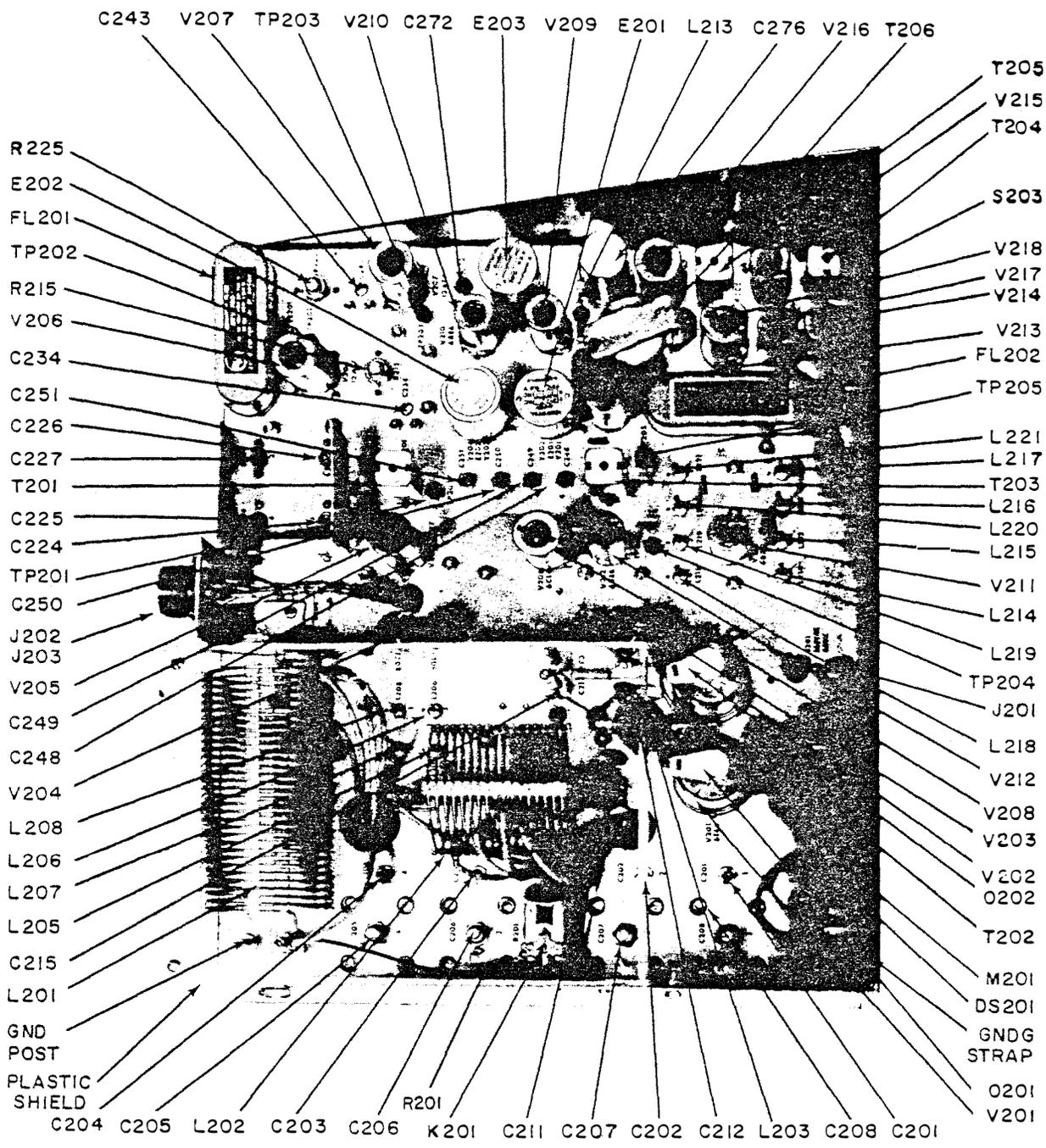
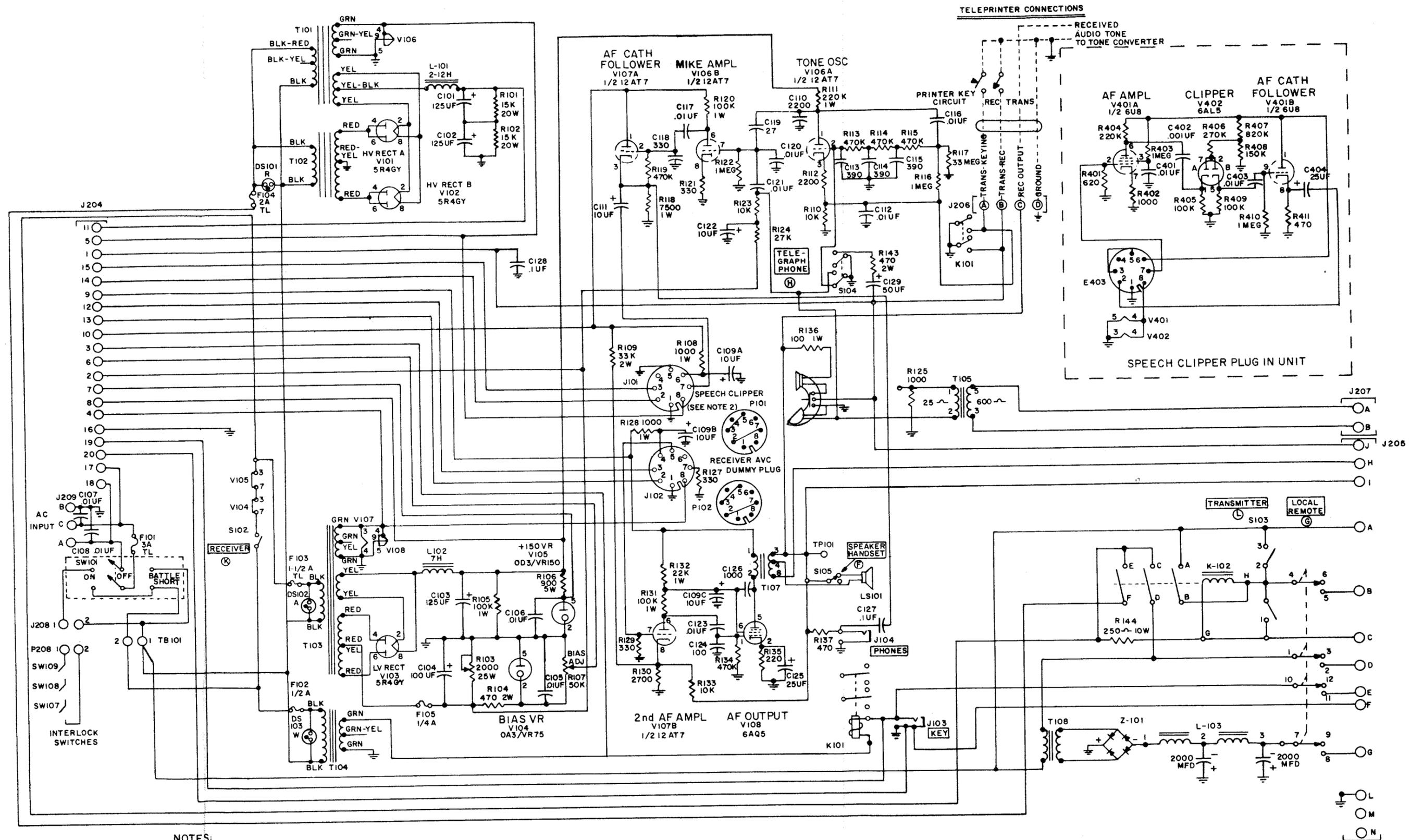


Figure 17. Power Supply, Bottom View



Field Change IV

Figure 20. Transmitter-Receiver, Top View



- NOTES:
- UNLESS OTHERWISE SPECIFIED
ALL RESISTORS ARE IN OHMS K=1,000 MEG=1,000,000
ALL CAPACITORS ARE IN MICROMICROFARAD (UUF)
 - DUMMY PLUG P101 NOT SUPPLIED REQUIRED ONLY IF
SPEECH CLIPPER IS NOT USED.

Figure 28. Power Supply Schematic

0967 105 2015 FORMERLY
0280 414 8005
T-5 to NAVSHIPS 92917

UNCLASSIFIED

15 July 1959

TEMPORARY CORRECTION T-5 TO TECHNICAL MANUAL FOR SINGLE-SIDEBAND RADIO
COMMUNICATION EQUIPMENT SSB-1 NAVSHIPS 92917

This temporary correction is in effect after Field Change 5-SSB-1 has been accomplished. Therefore, do not correct the manual until the field change has been made.

This temporary correction changes the manual to reflect the equipment changes made by Field Change 5-SSB-1. The field change applies to all sets and its purpose is to add a plate current meter in submarine installations.

Make the following pen and ink corrections. Insert this temporary correction in the technical manual immediately after the front cover and preceding T-4.

PAGE & REFERENCE
SYMBOL

DESCRIPTION

60, M 201

Meter, milliammeter DC type, meter reading 0-300
ma, sealed and ruggedized; type MR 26W-300 DC
MAR Federal Stock Number N6625-553-8553.

Record this correction on RECORD OF CORRECTIONS MADE page.

This Technical Manual correction material was originally published as part of Field Change 5-SSB-1 which appeared in EIB 495, dated 19 September 1958.

T-6 to NAVSHIPS 92917

UNCLASSIFIED

8 February 1961

0967-108-2016

Formerly 0280-414-8006

Temporary Correction T-6 to Technical Manual for Radio Set SSB-1

This temporary correction revises the manual to reflect the equipment changes made by Field Change 6-SSB-1. The purpose of this field change is to increase sensitivity and maintain a more stable output. The field change applies to all SSB-1 that have completed Field Changes 1 through 4.

When this change is included in the manual, the manual shall cover the equipment as though Field Change 6-SSB-1 had been accomplished on the equipment. This correction does not supersede any other corrections or changes.

Maintenance support activities shall make this correction in the technical manual immediately.

Holders of equipment accompanied by technical manuals shall not make this correction in the manual until accomplishment of the field change.

Make the following pen-and-ink corrections. Insert these temporary correction in the technical manual in their appropriate columns.

1. Transmitter-Receiver Schematic, Pages 75, 76, 77 and 78; Figures 29 and 29B.

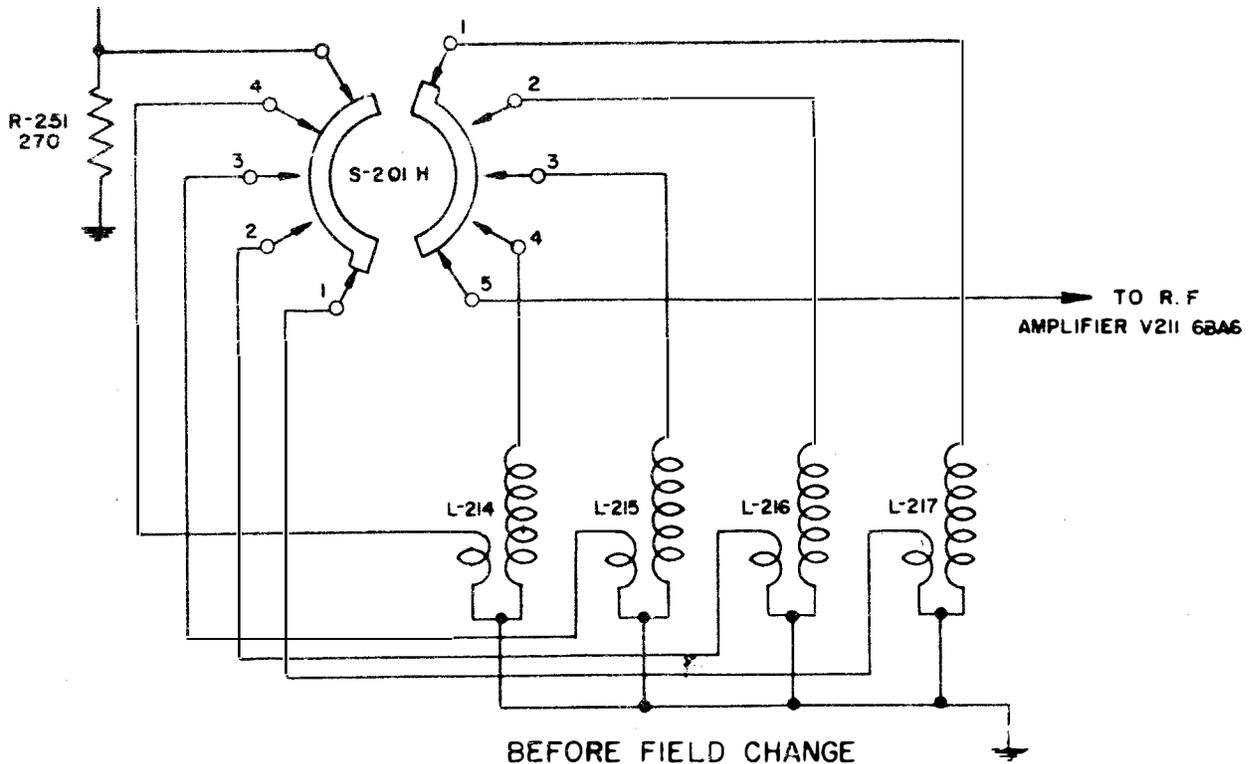
Referring to temporary correction Figures 1 and 2, make the necessary pen-and-ink correction to the Transmitter-Receiver Schematics to conform with Field Change 6-SSB-1.

2. Parts List, Page 67, RCA Instruction Book, below S-201J, insert the following information:

Reference	Qty.	Locating Function	Name and Description	Stock Number
S-201K	1	Receiver input shorting switch.	Switch, wafer, rotator, 5 position, Mfr. Centralab, part/dwg. PS-283.	N5930-636-2565

3. Parts List, Page 67, RCA Instruction Book, below S-201K, insert the following information:

Reference	Qty.	Locating	Name and	Stock
Designation		Function	Description	Number
S-201L	1	IPA coil	Switch, wafer, rotator,	N5930-636-
		shorting	5 position, Mfr. Cen-	2565
		switch.	tralab, part/dwg. PS-	
			283.	



BEFORE FIELD CHANGE

AFTER FIELD CHANGE

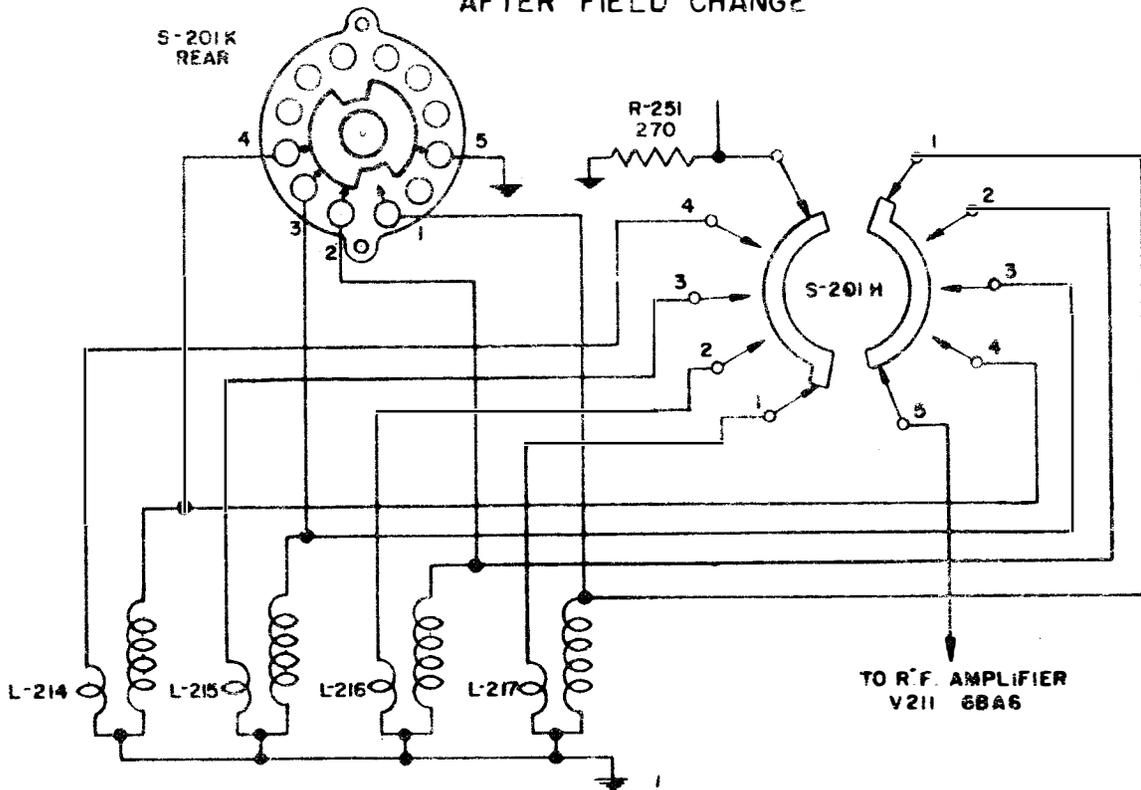
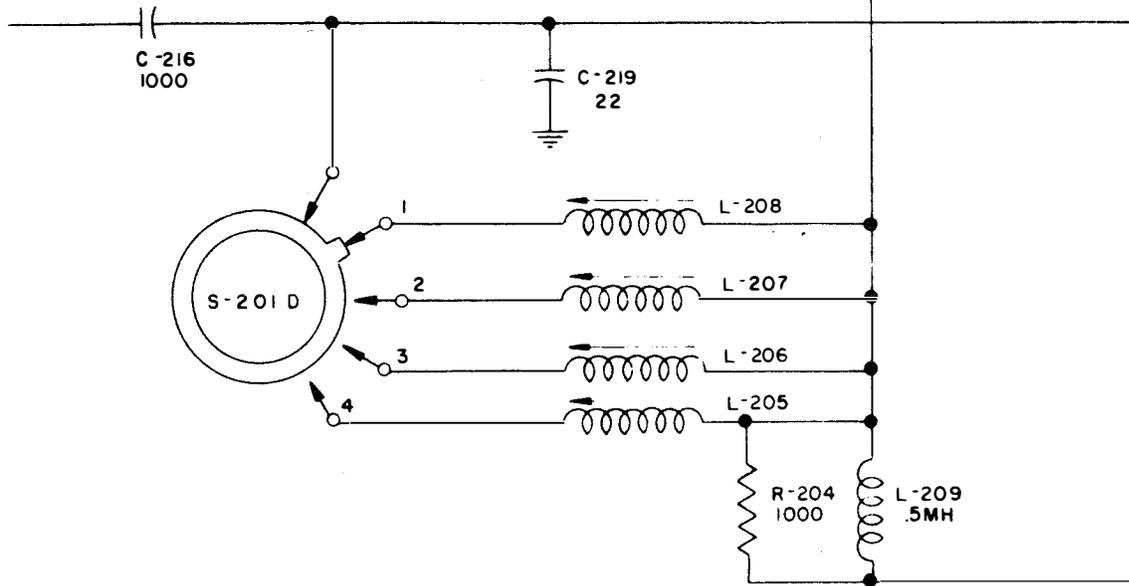


FIGURE 1



BEFORE FIELD CHANGE

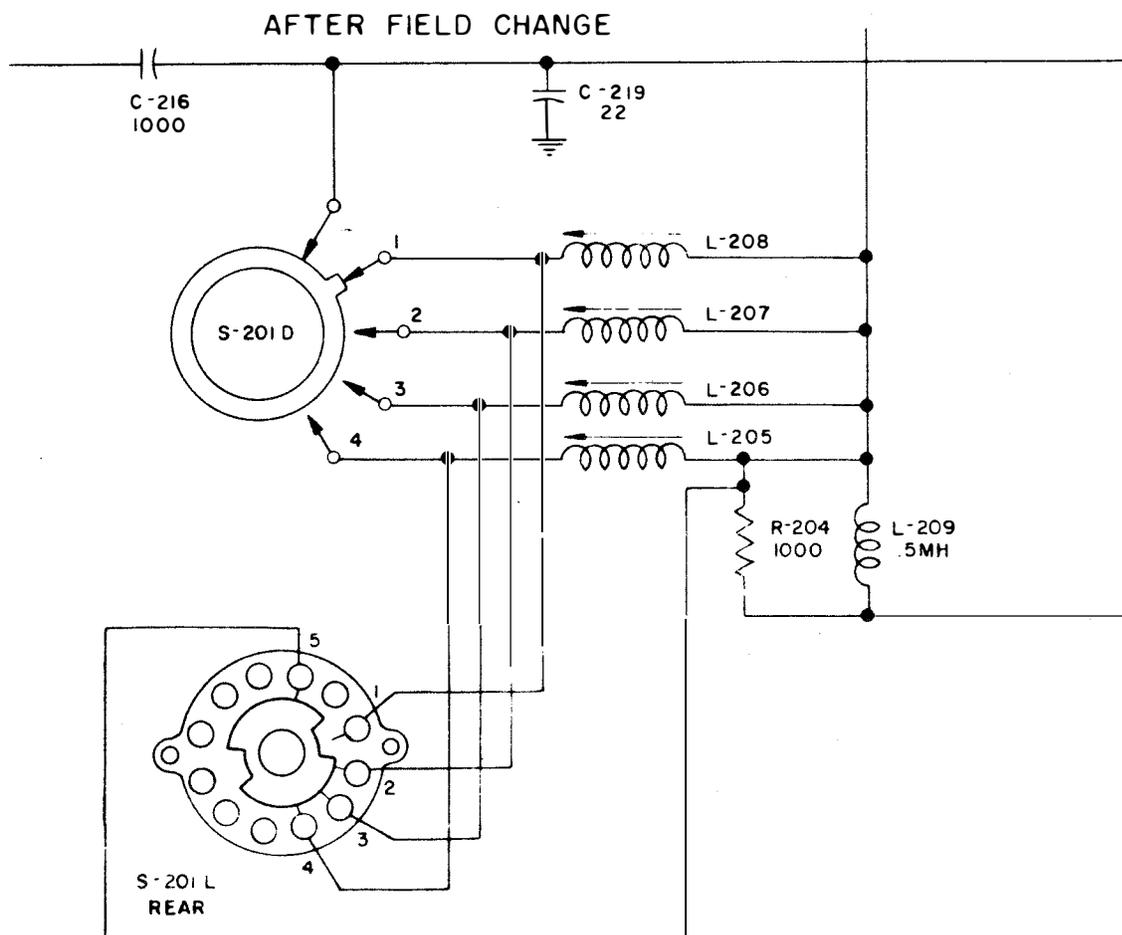


FIGURE 2

CORRECTION T-6

UNCLASSIFIED