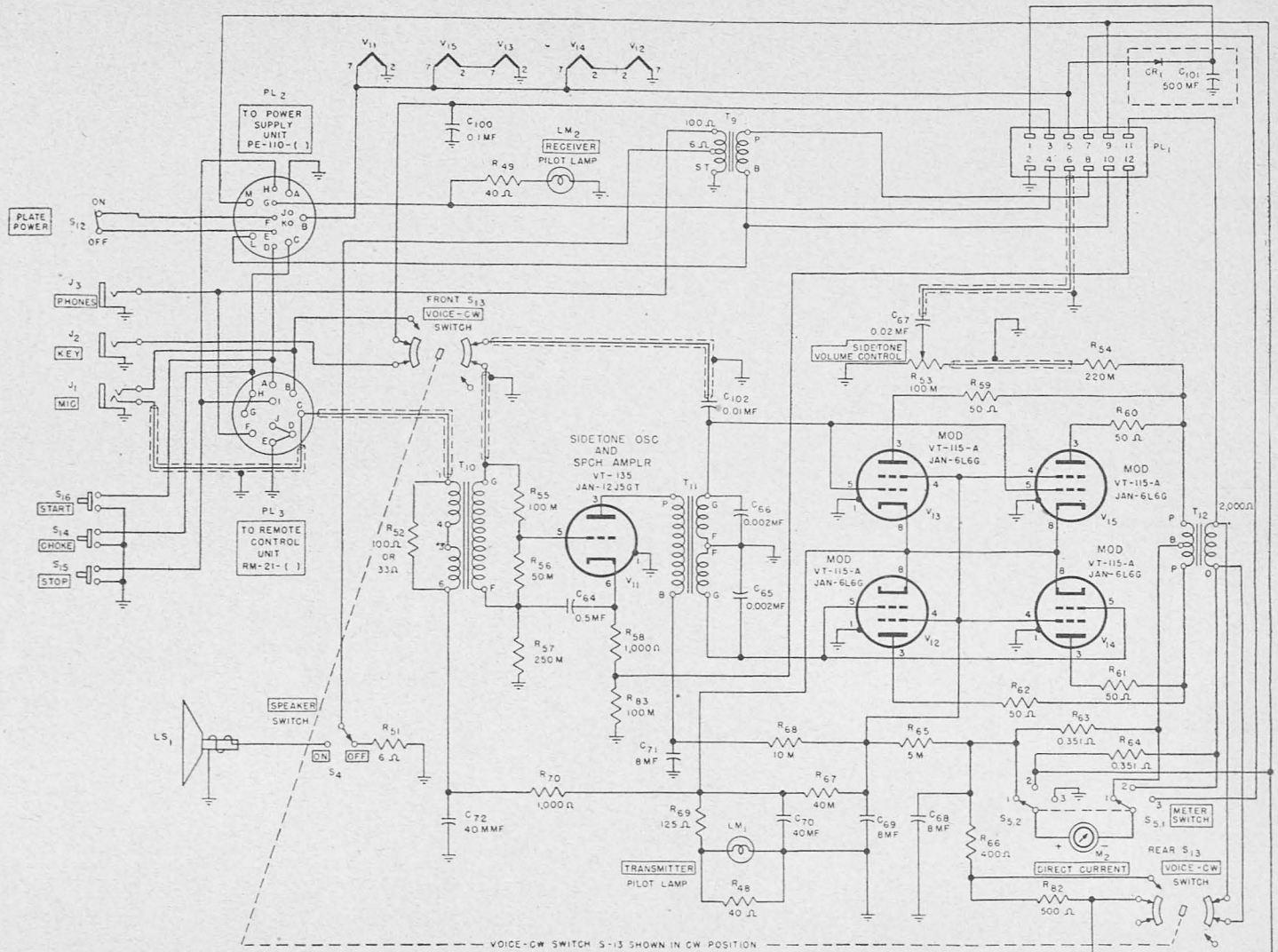


REF SYMBOL	VALUE	RATING
C64	0.5 MF	200 VDCW
C65	0.002 MF	500 VDCW
C66	0.002 MF	500 VDCW
C67	0.02 MF	600 VDCW
C68	8 MF	1,000 VDCW
C69	8 MF	1,000 VDCW
C70	40 MF	100 VDCW
C71	8 MF	1,000 VDCW
C72	40 MF	100 VDCW
C100	0.1 MF	400 VDCW
C101	500 MF	25 VDCW
C102	0.01 MF	400 VDCW

REF SYMBOL	VALUE	RATING
R48	40 OHMS	2 W
R49	40 OHMS	2 W
R51	BC-669-A, 100 OR 33 OHMS	1/2 W 2 W
R52	BC-669-B AND -C, 5 OHMS 100 OR 33 OHMS	2 W 1/2 W 2 W
R53	100,000 OHMS (POTENTIOMETER)	
R54	220,000 OHMS	1 W
R55	100,000 OHMS	1/2 W
R56	50,000 OHMS	1/2 W
R57	250,000 OHMS	1/2 W
R58	1,000 OHMS	1/2 W
R59	50 OHMS	1/2 W
R60	50 OHMS	1/2 W
R61	50 OHMS	1/2 W
R62	50 OHMS	1/2 W
R63	0.351 OHM	300 MA
R64	0.351 OHM	300 MA
R65	5,000 OHMS	20 W
R66	BC-669-A AND -B, 500 OHMS WITH 400- OHM TAP BC-669-C, 400 OHMS	50 W
R67	40,000 OHMS	20 W
R68	10,000 OHMS	10 W
R69	125 OHMS	10 W
R70	1,000 OHMS	2 W
R82	500 OHMS	50 W
R83	100,000 OHMS	1/2 W



NOTE: R₅₁ EQUALS 100Ω OR 33Ω IN BC-669-A
 R₆₆ EQUALS 400Ω IN BC-669-C
 M=1,000 Ω
 † IS SYMBOL FOR FIXED CAPACITOR

METER SWITCH
 POSITION 1 - MOD. PLATE CURRENT
 POSITION 2 - PA. PLATE CURRENT
 POSITION 3 - PA. GRID CURRENT

PL12999-5

Figure 6. Radio Receiver and Transmitters BC-669-A, -B, and -C, modulator section, with modification for c-w operation.

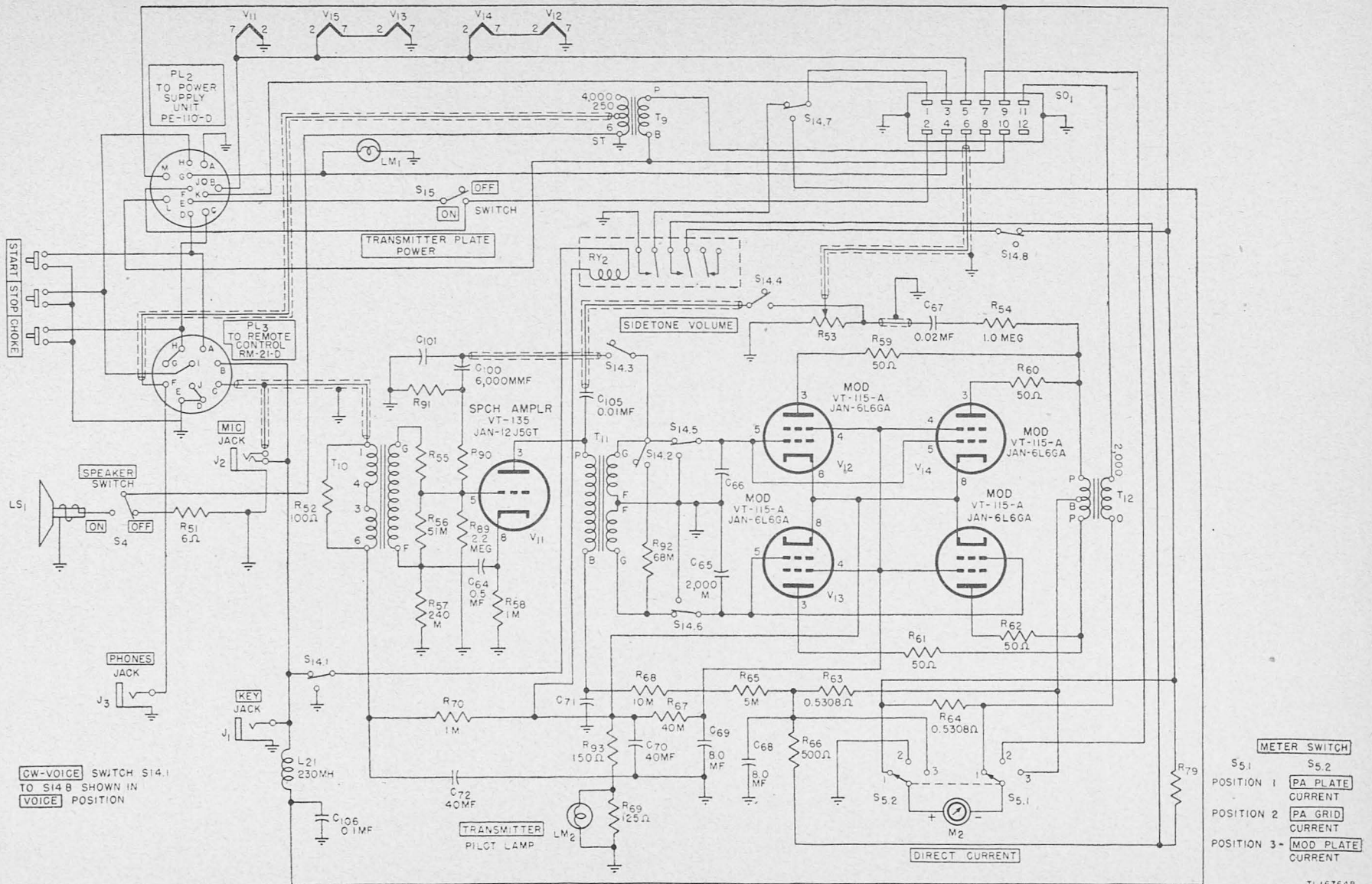
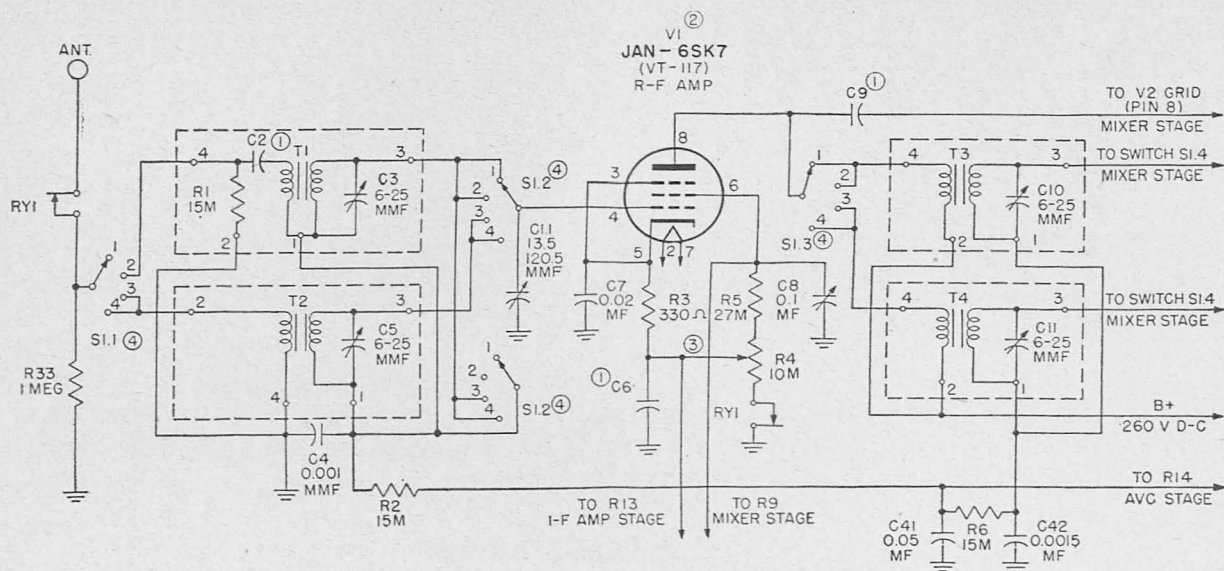


Figure 7. Radio Receiver and Transmitter BC-669-D, modulator section, schematic.



① VALUES OF THESE CIRCUIT ELEMENTS VARY IN DIFFERENT MODELS. VALUES ARE AS FOLLOWS:

MODEL	C2	C6	C9
BC-669-A	0.0045 MMF	1 MF	3 MMF
BC-669-B	0.006 MF	0.05 MF	2.5 MMF
BC-669-C	0.0045 MF	0.01 MF	3 MMF

② GLASS TUBE JAN-6SK7 GT/G (VT-117-A) USED IN BC-669-B AND BC-669-C.

③ CATHODE CIRCUIT VARIES BETWEEN MODELS. MAIN CIRCUIT DIAGRAM IS FOR BC-669-A. CATHODE CIRCUITS FOR BC-669-B AND BC-669-C ARE SHOWN IN SMALLER DIAGRAMS.

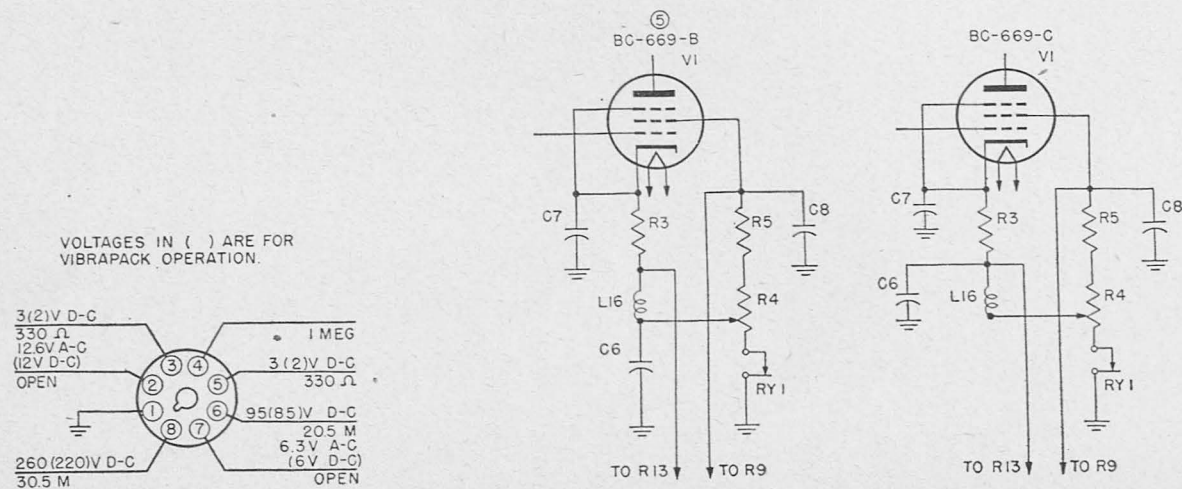
SI POSITION	OPERATION	BAND	FREQUENCY
1	CRYSTAL	1	1680-2750 KC
2	MANUAL	1	1680-2750 KC
3	CRYSTAL	2	2700-4450 KC
4	MANUAL	2	2700-4450 KC

⑤ BC-669-B ON ORDER NO. 32780-PHILA-43 IS THE SAME AS MODEL BC-669-C.

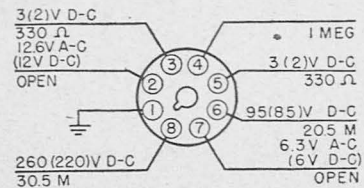
FOR TEST CONDITIONS SEE PARAGRAPH 23.

NOTE:

⊢ IS SYMBOL FOR FIXED CAPACITOR
 ⊢ IS SYMBOL FOR VARIABLE CAPACITOR
 M = 1,000 OHMS



VOLTAGES IN () ARE FOR VIBRAPACK OPERATION.



TL 19704

Figure 28. Radio Receiver and Transmitter BC-669-(*), r-f amplifier stage, schematic diagram.

37. Mixer or Converter Stage (fig. 29)

a. FUNCTION OF STAGE. (1) Grid No. 3 of Tube JAN-6SA7 (V2) receives signal voltage amplified by tube V1 through inductive coupling provided by r-f transformer T3 or T4. Primary switching for the two frequency bands is effected by switch section S1.3. Secondary switching in two frequency bands is provided by switch section S1.4. The tuned circuit formed by T3 secondary and capacitor section C1.2 determines the frequency of the signal received by grid No. 3.

(2) Tube V2 receives its plate voltage through resistor R11, the primary of i-f transformer T5, and resistor R10. The voltage is filtered of radio frequency by capacitor C14.

(3) The cathode of tube V2 is biased by the voltage drop across resistor R7, and is bypassed by capacitor C12.

(4) An a-v-c voltage is applied through resistor R6 and T3 secondary to grid No. 3 of tube V2, and is filtered by capacitor C41. Filtering assists in maintaining voltage level, and in preventing overloading of the tube by very strong signals.

b. REPAIR DATA ON MIXER OR CONVERTER STAGE. Defective action in a BC-669-(*) receiver may be

caused by faults on the mixer stage. Among these are the following:

(1) *Dead set.* This may be due to a defective Tube JAN-6SA7, or to improper tube voltages. The oscillator may not be working, or it may be operating at a frequency which will not pass the i-f transformer. The i-f transformer may be defective. If no r-f signal is present, rub the metal part of the screw driver on the stator of the oscillator tuning capacitor. Little or no noise in the loudspeaker indicates a defective oscillator.

Caution: Keep fingers or body away from the metal part of the screw driver.

A negative voltage across oscillator grid leak R8 indicates an operative oscillator. No voltage, or positive voltage, indicates trouble. Infinity or high reading on an ohmmeter across oscillator coils T7, T8, or L2 indicates trouble.

(2) *Fading.* This may be caused by dirty or loose band-switch contacts. It may also be caused by loose windings on r-f coils, by open or shorted resistors, by poorly soldered contacts, or by defective dielectric in trimmers or padders.

(3) *Distortion.* This may be caused by a defective mixer tube, by open or shorted a-v-c capacitors,

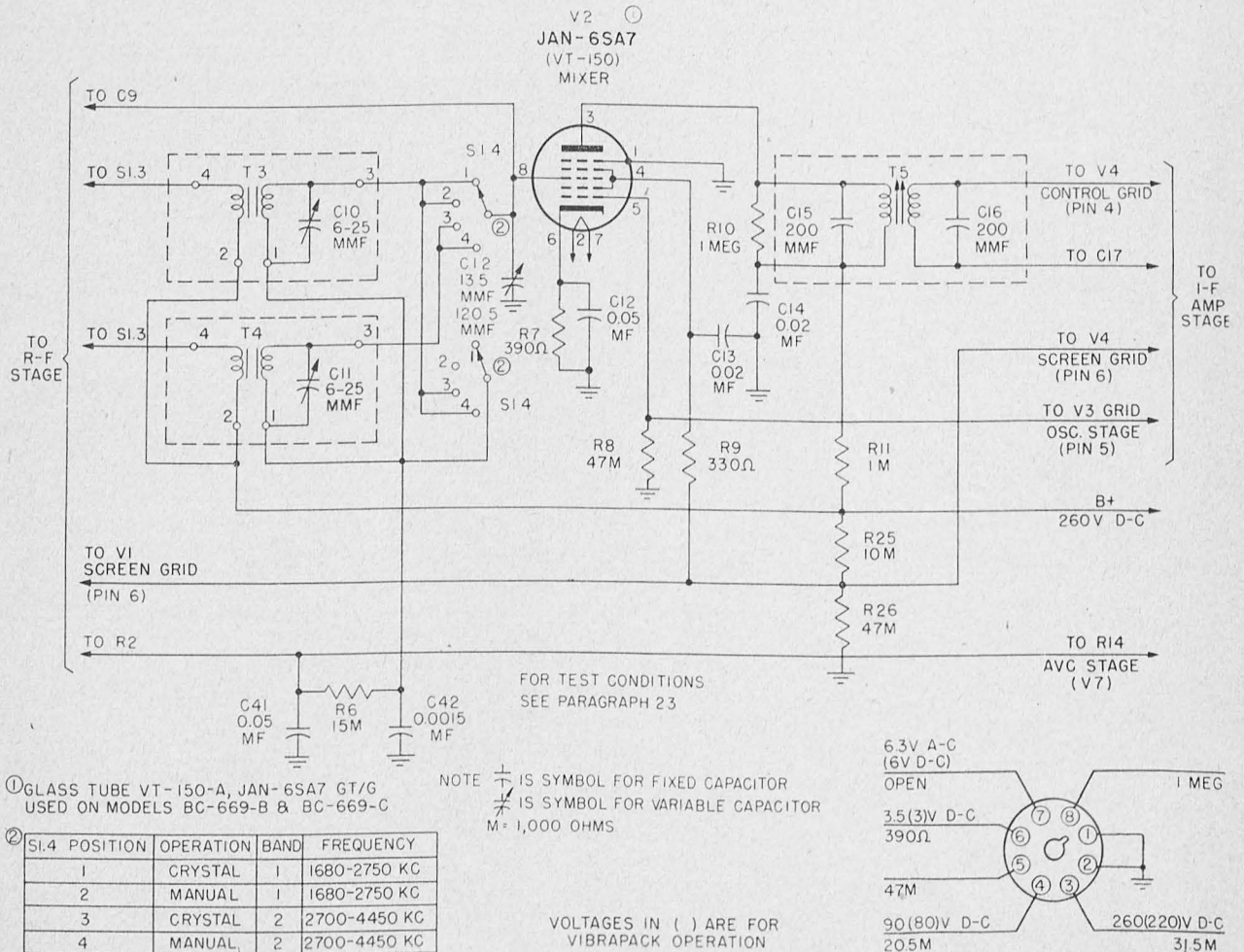
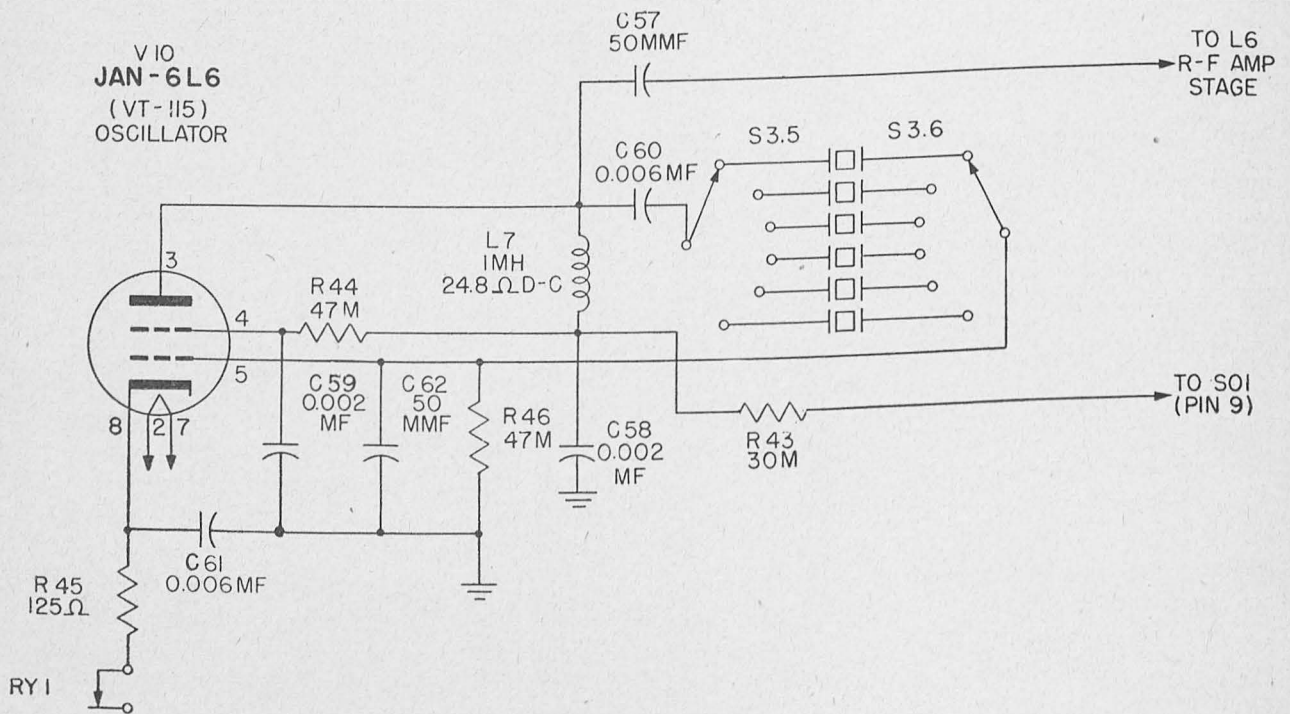


Figure 29. Radio Receiver and Transmitter BC-669-(*), mixer stage, schematic diagram.



FOR TEST CONDITIONS
SEE PARAGRAPH 23.

NOTE: $\text{---} \perp \text{---}$ IS SYMBOL FOR FIXED CAPACITOR
M = 1,000 OHMS.

VALUES IN [] APPLY TO TRANSMIT OPERATION.
TUBES NOT EXCITED UNDER VIBRAPACK OPERATION.

TL 19706

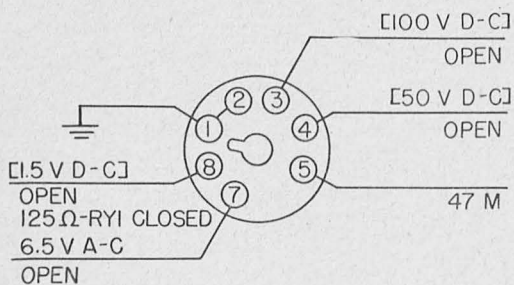
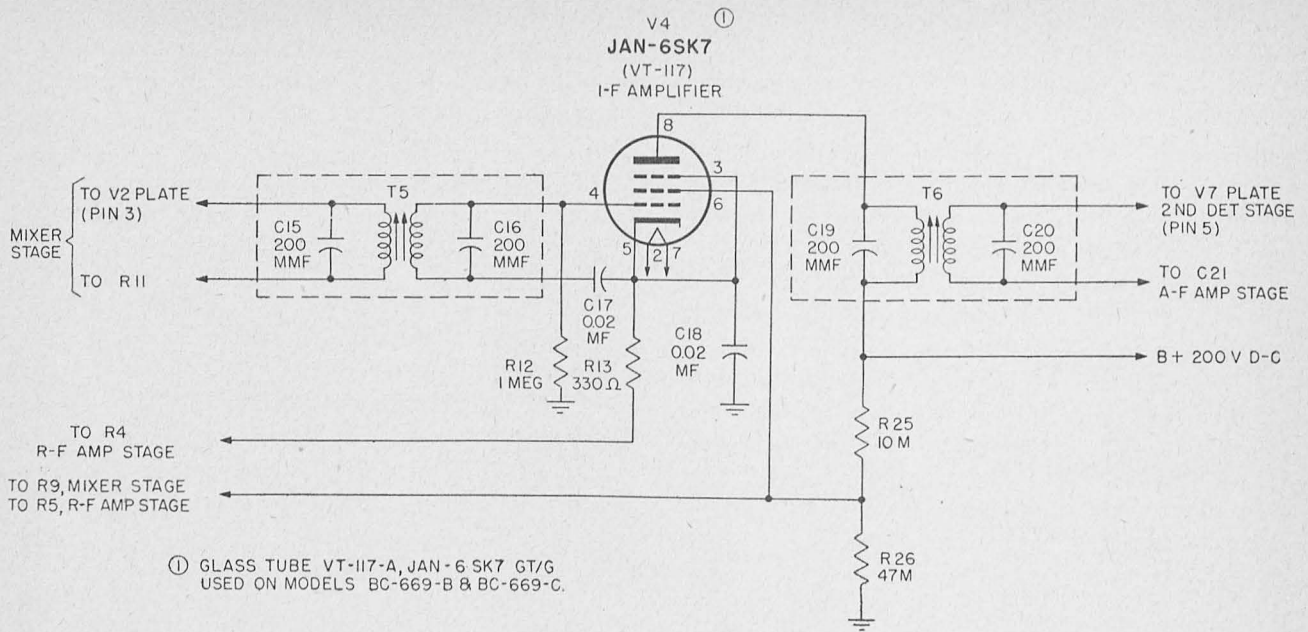
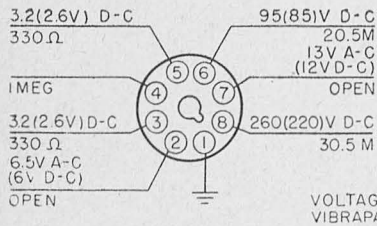


Figure 30. Radio Receiver and Transmitter BC-669-(*), heterodyne oscillator stage, schematic diagram.



FOR TEST CONDITIONS
SEE PARAGRAPH 23.



NOTE: $\frac{1}{\text{---}}$ IS SYMBOL FOR FIXED CAPACITOR.
M=1,000 OHMS.

TL 19707

VOLTAGES IN () ARE FOR
VIBRAPACK OPERATION.

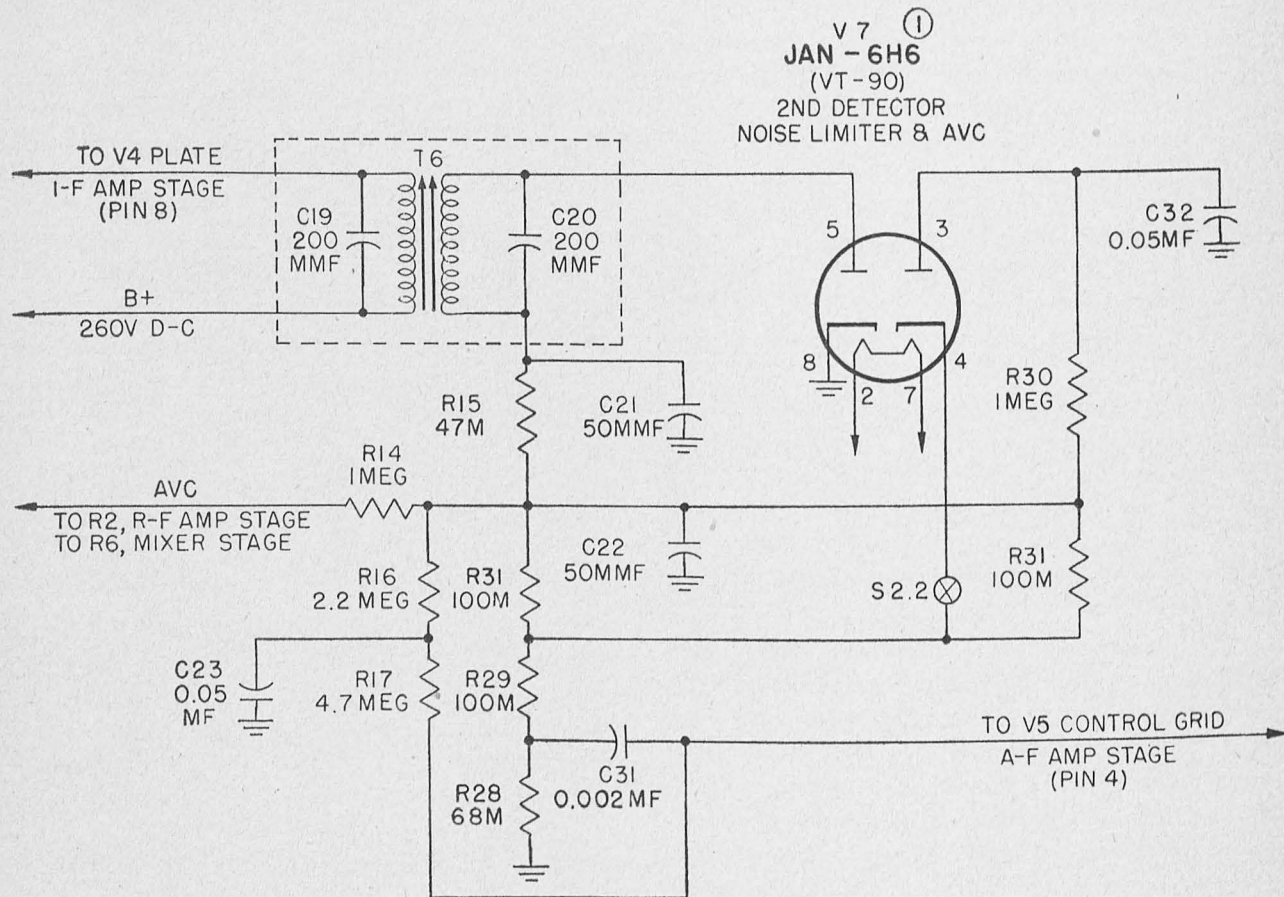
Figure 31. Radio Receiver and Transmitter BC-669-(*), i-f amplifier stage, schematic diagrams.

c. PARTS DATA.

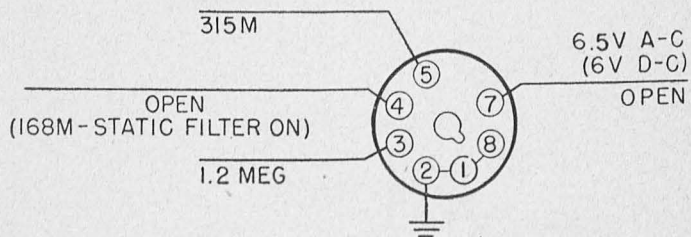
Ref. symbol	Signal Corps stock No.	Name of part and description	Function
C15	3D390	CAPACITOR: 200 mmf, $\pm 5\%$; 500 vdcw; molded silver-mica; small postage stamp type	T5 pri resonator.
C15 C ¹	3D390	CAPACITOR: 200 mmf, $\pm 5\%$; 500 vdcw; temp coef 0.0075; tubular, ceramic	T5 pri resonator.
C16	3D390	CAPACITOR: 200 mmf, $\pm 5\%$; 500 vdcw; molded silver-mica; small postage stamp type	T5 pri resonator.
C16 C ¹	3D390	CAPACITOR: 200 mmf, $\pm 5\%$; 500 vdcw; temp coef 0.00075; tubular, ceramic	T5 pri resonator.
C17 A, B ¹	3DA20-45	CAPACITOR: 0.02 mf, -10% $+20\%$; 400 vdcw; molded paper	T5 sec return.
C17 C ¹	3DA20-45	CAPACITOR: 0.02 mf, $\pm 20\%$; 400 vdcw; molded paper	T5 sec return.
C18 A, B ¹	3DA20-45	CAPACITOR: 0.02 mf, -10% $+20\%$; 400 vdcw; molded paper	V4 cathode bypass.
C18 C ¹	3DA20-45	CAPACITOR: 0.02 mf, $\pm 20\%$; 400 vdcw; molded paper	V4 cathode bypass.
R12	3Z6801-16	RESISTOR: 1-megohm $\pm 20\%$ $\frac{1}{2}$ watt; insulated carbon	V4 grid leak.
R13	3Z6033-9	RESISTOR: 330 ohms $\pm 10\%$; $\frac{1}{2}$ watt; insulated carbon	V4 cathode bias.
T5	2Z9641.11	TRANSFORMER, i-f: 385 kc; double permeability tuned; contains capacitors C14 and C16; special	1st i-f amp coil.
V4 A ¹		TUBE, JAN-6SK7, VT-117	Revr i-f amp.
V4 B, C ¹		TUBE, JAN-6SK7GT/G, VT-117-A	Revr i-f amp.
V4 B, C ²		TUBE, JAN-6SK7GT/G, VT-117-A	Revr i-f amp.

¹ Applies only to models indicated.

² Applies only to models indicated on Orders Nos. 32780-Phila-43 and 32781-Phila-43.



VALUES IN () ARE FOR VIBRAPACK OPERATION



① V7 IS A JAN 6H6-GT/G GLASS TUBE FOR MODELS BC-669-B, AND BC-669-C

FOR TEST CONDITIONS SEE PARAGRAPH 23.

TL19708

NOTE:



-  IS SYMBOL FOR FIXED CAPACITOR
-  IS SYMBOL FOR VARIABLE CAPACITOR
- M = 1,000 OHMS

Figure 32. Radio Receiver and Transmitter BC-669-(*) second detector, noise limiter, and a-v-c stage, schematic diagram.

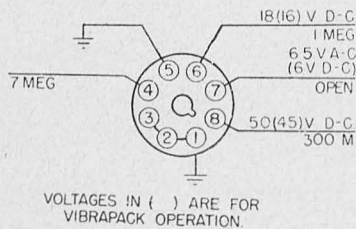
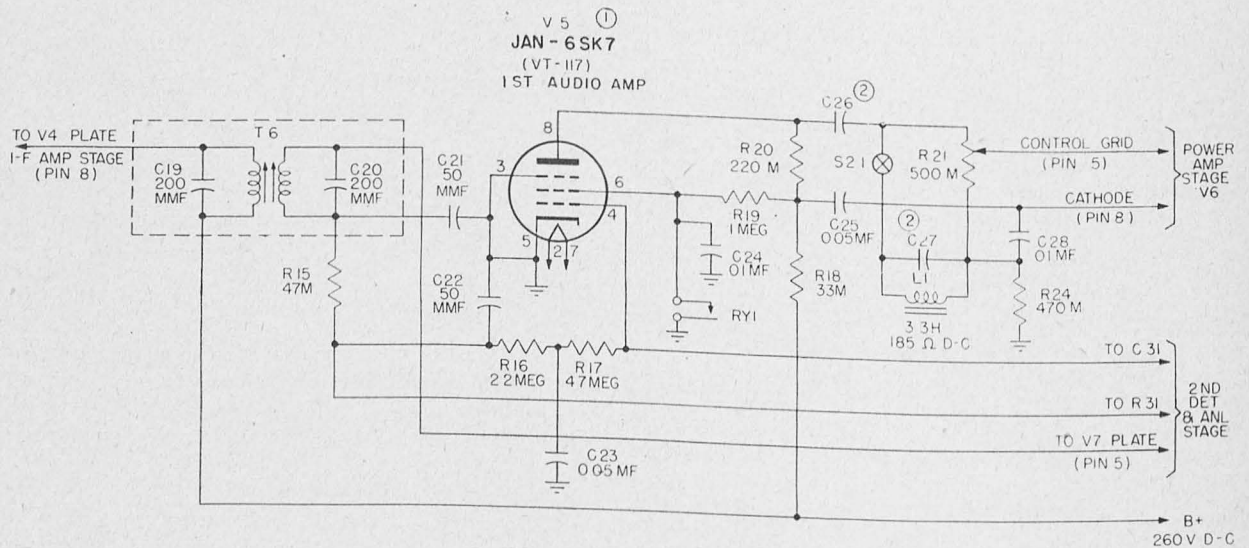
are the receiver troubles which may originate in this stage.

(1) *Dead unit and dead audio component.* Check tube V5. If it is defective, replace it. Shorted plate-load resistor R20 cancels the normal voltage drop across the resistor, raises plate potential and increases current in the circuit. When the plate voltage of V5 is excessive or when there is no output at the control grid (pin No. 5) of tube V6, check resistor R20. Check capacitors C20, C21, C22, C23, C24, C25, and C26. Replace any defective capacitors. Check resistors R15, R16, R17, R18, R19, R25, and R26. Replace any defective resistors.

(2) *Distortion.* Make sure that other stages are operating properly. If distortion continues, check resistors by voltage measurements for heating and consequent value change after set is in operation. Check all soldered connections.

(3) *Hum.* Check all filter capacitors. Check tubes against possible internal shorts.

(4) *Weak reception.* Check to make sure that filaments are getting proper voltage throughout unit. Check B+ to its source through pin and contacts No. 8 and 10 in plug PL1, and socket SO1 to pin No. 1 in plug PL2.



① GLASS TUBE VT-117-A, JAN-6SK7 GT/G USED ON MODELS BC-669-B & BC-669-C.

②

MODEL	C26	C27
BC-669-A	0.005 MMF	0.0075 MF
BC-669-B	0.006 MMF	0.007 MF
BC-669-C	0.005 MMF	0.0075 MF

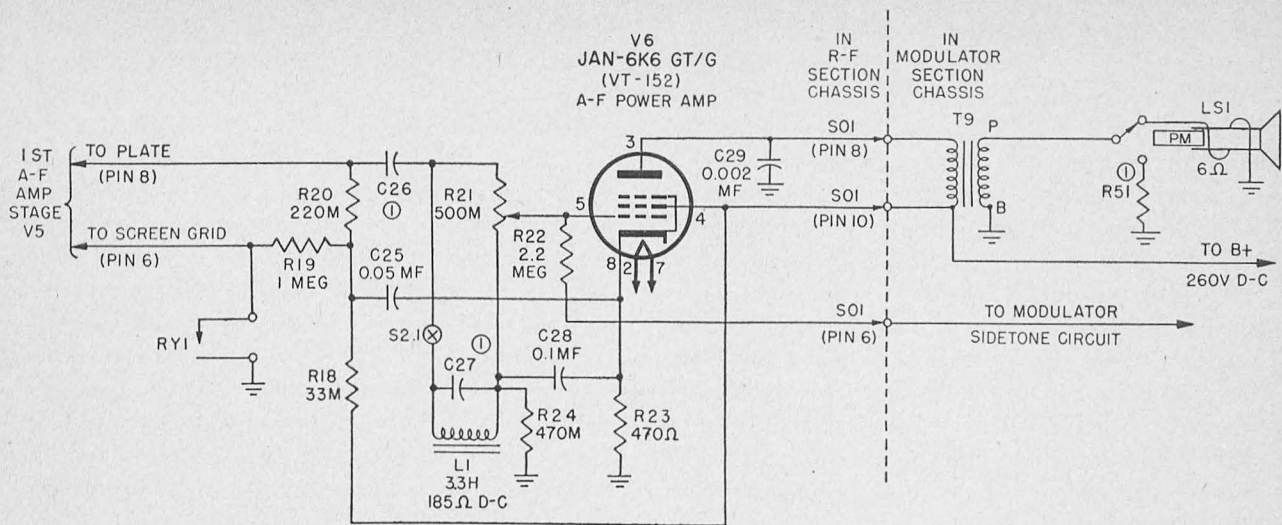
FOR TEST CONDITIONS SEE PARAGRAPH 23.

TL19709

NOTE:

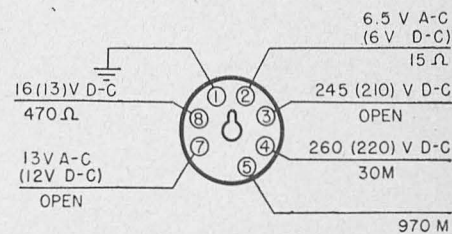
- IS SYMBOL FOR FIXED CAPACITOR
- IS SYMBOL FOR VARIABLE CAPACITOR
- M=1,000 OHMS

Figure 33. Radio Receiver and Transmitter BC-669-(*), audio-voltage amplifier stage, schematic diagram.



MODEL	C26	C27	R51
BC-669-A	0.005 MF	0.0075 MF	100Ω 33Ω
BC-669-B	0.006 MF	0.007 MF	6Ω
BC-669-C	0.005 MF	0.0075 MF	6Ω

VALUES IN () ARE FOR VIBRAPACK OPERATION



FOR TEST CONDITIONS SEE PARAGRAPH 23.

TL 19710

NOTE:

⊢ IS SYMBOL FOR FIXED CAPACITOR

⊢ IS SYMBOL FOR VARIABLE CAPACITOR

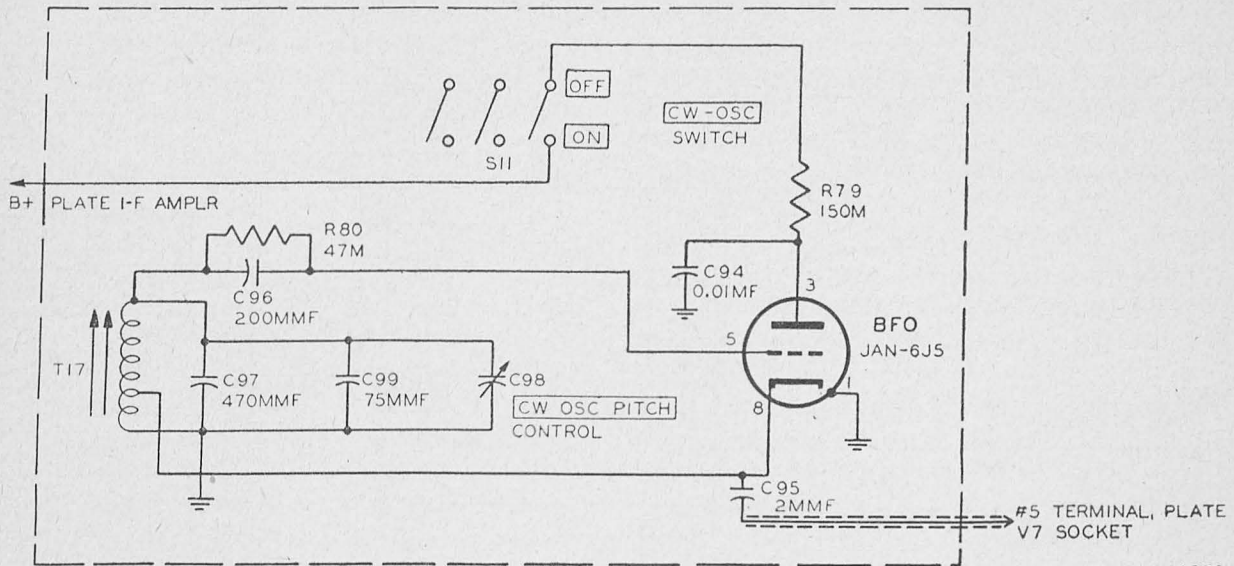
M=1,000 OHMS

Figure 34. Radio Receiver and Transmitter BC-669-(*), audio-power amplifier stage, schematic diagram.

c. PARTS DATA.

Ref. symbol	Signal Corps stock No.	Name of part and description	Function
C29 A*	3DA2-71	CAPACITOR: 0.002 mf ±20%; 800 vdcw; molded mica; postage stamp type.....	V6 plate bypass.
C29 B,C*	3DA2-71	CAPACITOR: 0.002 mf ±10%; 2,500 vdcw; molded mica	V6 plate bypass.
C30 A,B*	3DA50-57	CAPACITOR: 0.05 mf -10% +20%; 600 vdcw; molded paper	V6 screen bypass.
C30 C	3DA50-57	CAPACITOR: 0.05 mf ±20%; 600 vdcw; molded paper	V6 screen bypass.
R22	3Z6802A2-9	RESISTOR: 2.2 megohms ±20%; ½ watt; insulated carbon	Sidetone coupling.
R23	3Z6047-7	RESISTOR: 470 ohms ±10%; 2 watts; insulated carbon	V6 cathode bias.
R47	3Z6001 E 5-2	RESISTOR: 15 ohms ±10%; 10 watts.....	V6 fil dropping.
V6		TUBE, JAN-6K6GT/G, (VT-152)	Rev'r audio-power output.
V6 B,C*		TUBE, JAN-6K6GT/G, (VT-1252)	Rev'r audio-power output.

* Applies only to indicated models.



NOTE. IS SYMBOL FOR FIXED CAPACITOR
 IS SYMBOL FOR VARIABLE CAPACITOR.
 M=1,000 Ω

TL119525

Figure 35. Radio Receiver and Transmitters BC-669-AM, -BM, and -CM, beat-frequency oscillator stage.

d. PARTS DATA (Receiver).

Ref. symbol	Signal Corps stock No.	Name of part and description	Function
C94	(*)		Plate bypass capacitor.
C95	3D9003-12	CAPACITOR: fixed; mica; 3 mf; ±20%; 500 vdcw; Dubilier type 5WLS	Coupling capacitor.
C96		CAPACITOR: Same as C95	Grid coupling capacitor.
C97	3K2551143	CAPACITOR: fixed; silver mica; 500 mf; ±2%; 300 vdcw; JAN type CM25D50011G	Padding capacitor.
C98		CAPACITOR: Same as C97	Pitch control capacitor.
C99	(*)		Padding capacitor.
R79	3RC21BE154M	RESISTOR: fixed; carbon; 150,000 ohms; ±20%; 1/2 watt	Plate voltage-dropping resistor.
R80	(*)		Grid bias resistor.
S1.1	3Z9825-80.2	SWITCH: rotary; selector; 7 pole; 4-position; 3-section; Erla No. 13848 (for model C only)	Circuit selector.
T17	2Z9641.182	COIL ASSEMBLY: radio; bfo; iron core; Erla No. 16117	B-f-o plate inductance.
VT-94	2J6J5	TUBE: JAN-6J5	Oscillator tube.

* Indicates stock not available.

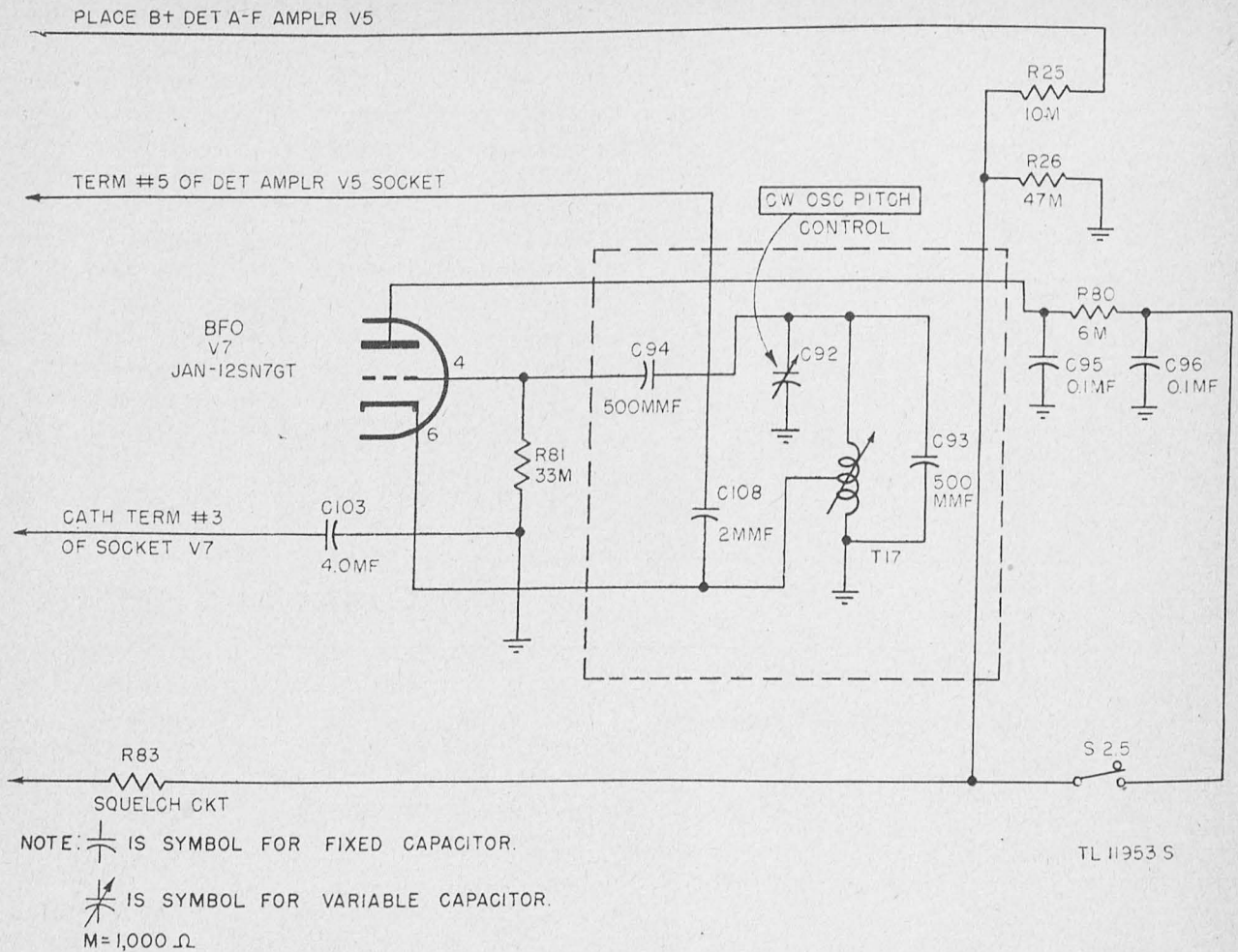
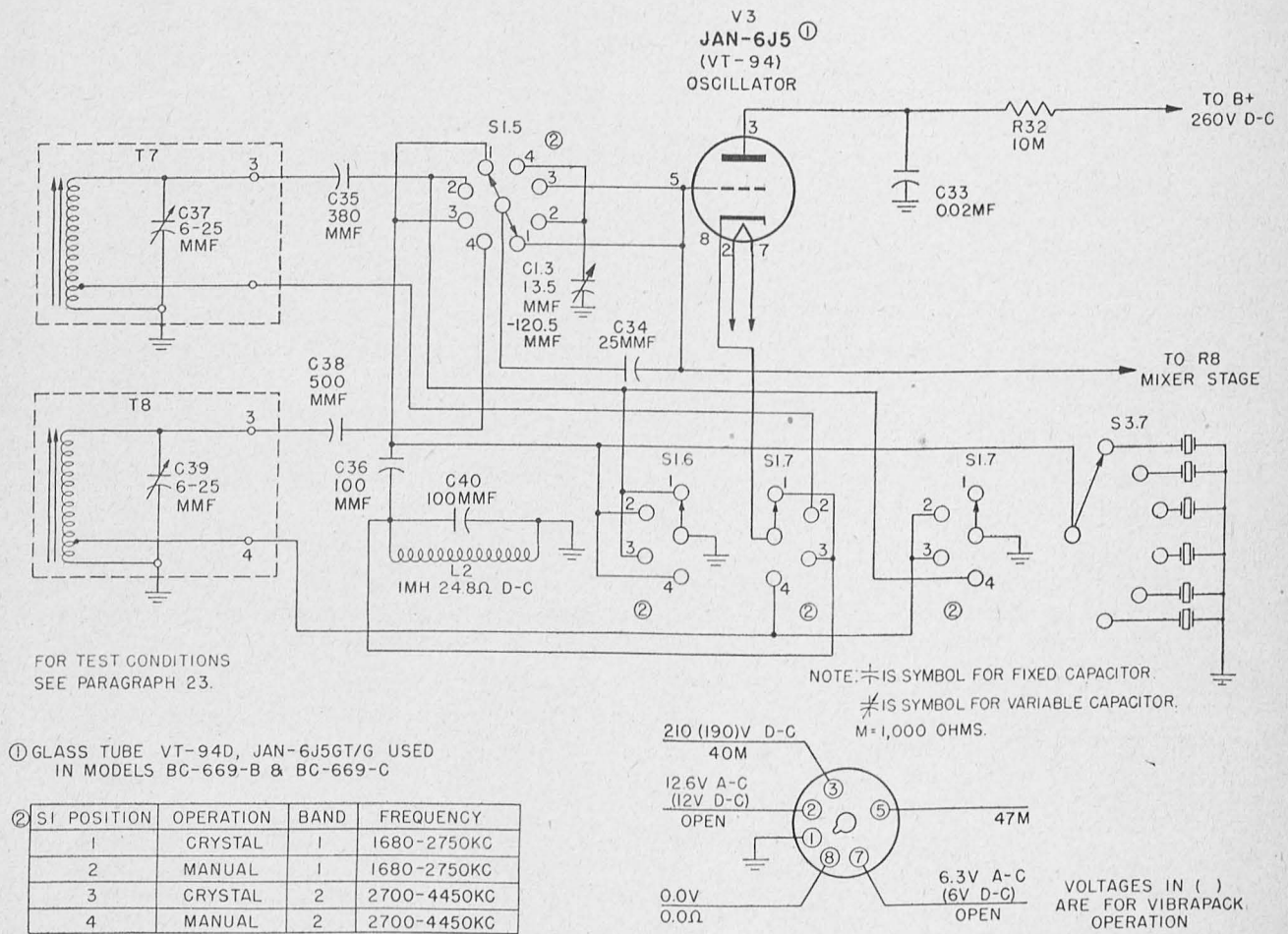


Figure 36. Radio Receiver and Transmitter BC-669-D, beat-frequency oscillator stage.

c. PARTS DATA (Model D) (Receiver.)

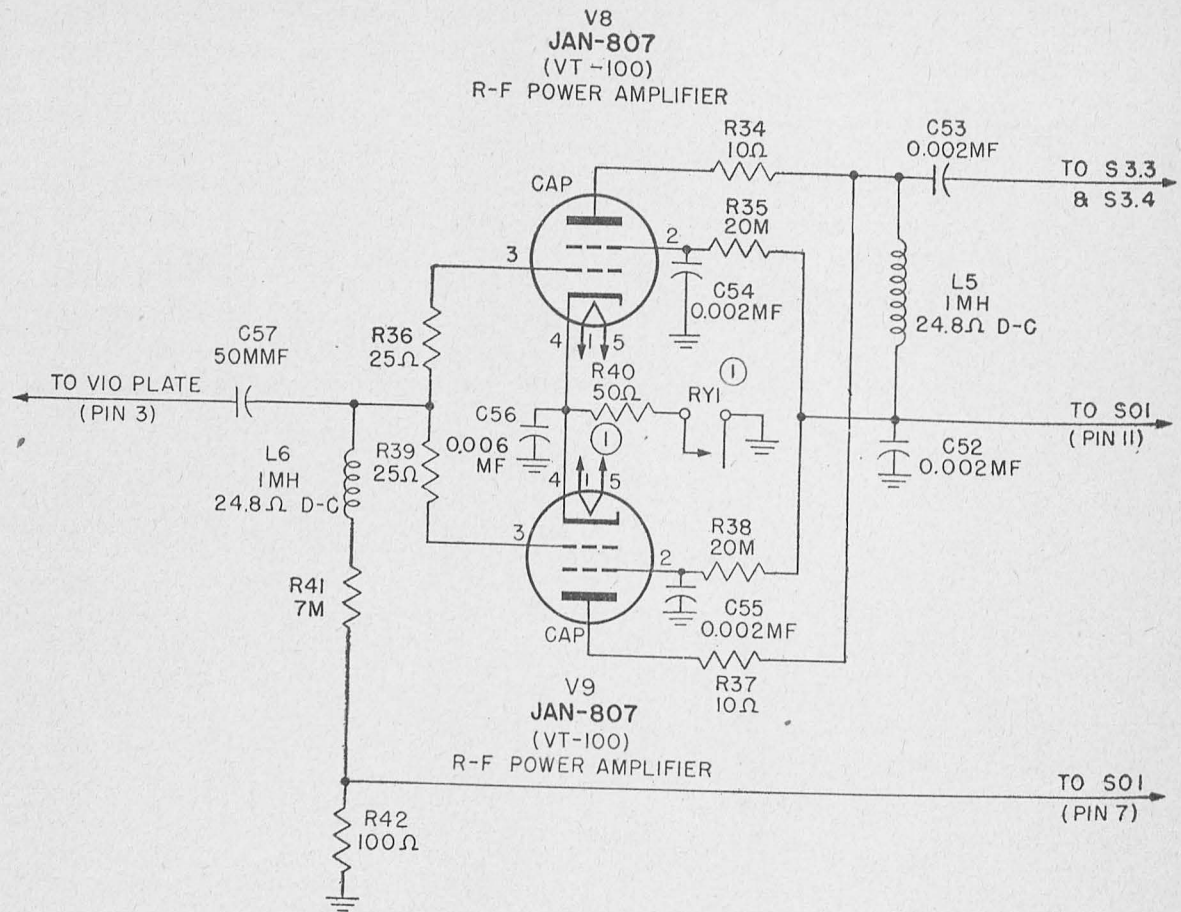
Ref. symbol	Signal Corps stock No.	Name of part and description	Function
C92	(*)		Pitch control capacitor.
C93	3K2551143	CAPACITOR: fixed; silver mica; 500 mmf; $\pm 2\%$; 300 vdcw; JAN type CM25D50011G	Padding capacitor.
C94		CAPACITOR: Same as C93	Grid coupling capacitor.
C95	3DA100-112.1	CAPACITOR: fixed; paper; 0.1 mf $\pm 20\%$; 100 vdcw molded mica; type 345-21	Filter capacitor.
C96		CAPACITOR: Same as C95	Filter capacitor.
C103	3DB4-165	CAPACITOR: fixed; paper; 4 mf $+14\%$ -6% ; 50 vdcw; Gudeman No. 7541	Cathode coupling capacitor.
R25	3Z6610-70	RESISTOR: fixed; wire-wound; 10,000 ohms $\pm 10\%$; 10 watt; Utah type VWQ	Plate voltage-dropping resistor.
R26	3RC21BE473K	RESISTOR: fixed; carbon; 47,000 ohms, $\pm 10\%$; 1 watt	Voltage regulating resistor.
R80	3RC21BE622	RESISTOR: fixed; carbon; 6,000 ohms, $\pm 10\%$; $\frac{1}{2}$ watt	Resistance filter.
R81	3RC21BE333M	RESISTOR: fixed; carbon; 33,000 ohms, $\pm 20\%$; $\frac{1}{2}$ watt	Grid leak resistor.
R83	3RC21BE224K	RESISTOR: fixed; carbon; 220,000 ohms, $\pm 10\%$; $\frac{1}{2}$ watt	Squelch cathode voltage dropping.
T17	2Z9641.182	COIL ASSEMBLY: radio; bfo; iron core; Erla No. 16117	B-f-o plate inductance.
S2.5	3Z9825-62.170	SWITCH: rotary; 2 position; 6 pole; Erla No. 16101	Circuit selector.
V7	2J12SN7GT	TUBE: JAN-12SN7GT	Oscillator tube.

* Indicates stock not available.

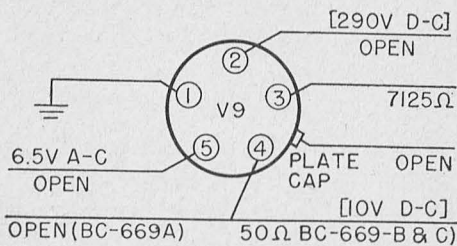
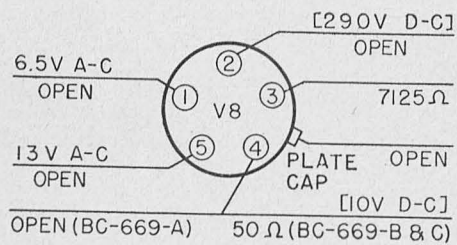


TL 19711

Figure 37. Radio Receiver and Transmitter BC-669-(*), transmitter oscillator stage, schematic diagram

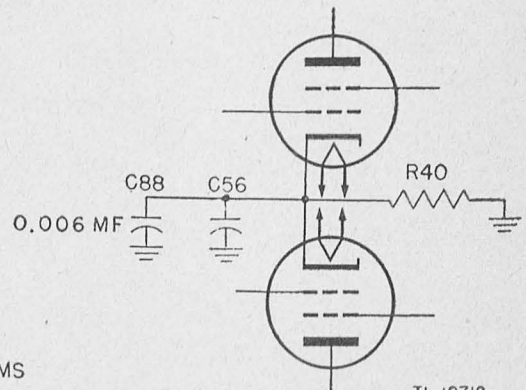


VALUES IN [] ARE FOR TRANSMIT OPERATION. TUBES NOT EXCITED UNDER VIBRA-PACK OPERATION.



① FOR TEST CONDITIONS SEE PARAGRAPH 23.

② ON MODEL BC-669-B & C CATHODE CIRCUIT CHANGED AS SHOWN IN SMALL DIAGRAM.



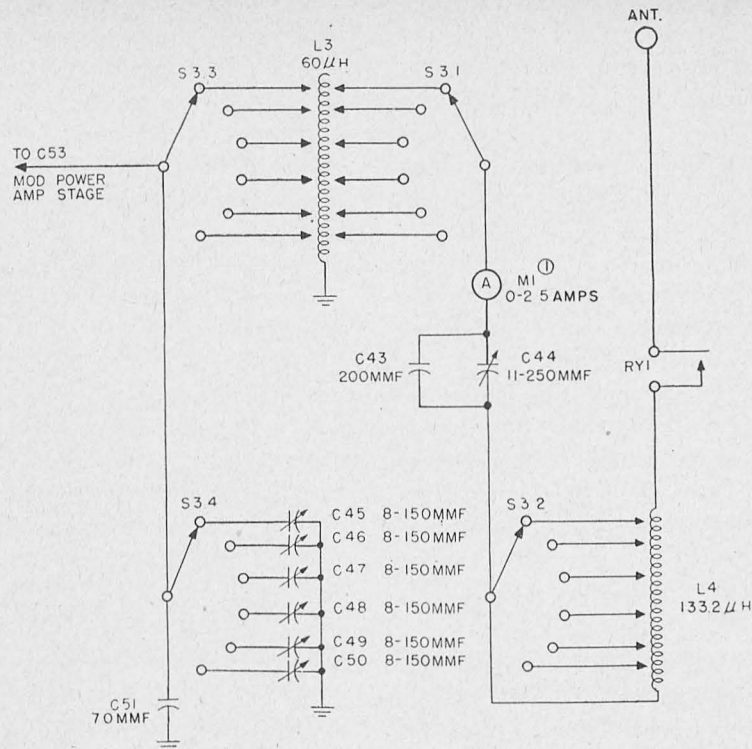
NOTE:

M = 1,000 OHMS

⊢ IS SYMBOL FOR FIXED CAPACITOR

⊢ IS SYMBOL FOR VARIABLE CAPACITOR

Figure 38. Radio Receiver and Transmitter BC-669-(*), transmitter r-f amplifier stage, schematic diagram.



① ON BC-669-A, SOME UNITS HAVE METER MI CONNECTED ON THE ANTENNA SIDE OF COIL L4

NOTE:

⊢ IS SYMBOL FOR FIXED CAPACITOR

⊢ IS SYMBOL FOR VARIABLE CAPACITOR

TL 19713

Figure 39. Radio Receiver and Transmitter BC-669-(*), transmitter antenna coupling stage, schematic diagram.

e. PARTS DATA.

Ref. symbol	Signal Corps stock No.	Name of part and description	Function
C43	3D9200-37	CAPACITOR: 200 mmf $\pm 5\%$; 1,430 vacw; 3.5 amps r-f @ 3,000 kc; molded mica	Shunt capacitor for C44.
C44	3D925CV-1	CAPACITOR: 11 mmf to 250 mmf; variable, air	Transmitter ant. tuning.
L4	3C4003-1	COIL ASSEMBLY, r-f: 133.2 mh; special	Transmitter ant. loading.
M1	3F511	AMMETER: 0 to 2.5 amps r-f; thermocouple type; accuracy $\pm 2\%$ full scale to 6 mc	Ant. current indicator.
RY1 A,C*	2Z7638.3/1	RELAY: DPDT plus one set of normally open contacts; coil 115 v, 60 cps ac; special	Antenna change-over.
RY1 B*	2Z7638.3/1	RELAY: DPDT plus one set of normally open contacts; coil 115 v, 60 cps ac; special	Antenna change-over.
S3.2	3Z9825-62.25	SWITCH ASSEMBLY: single-section ceramic; 6-position through 360°	L4 switching.

* Applies only to models indicated.

V II
JAN-12J5GT
 (VT-135)
 DRIVER

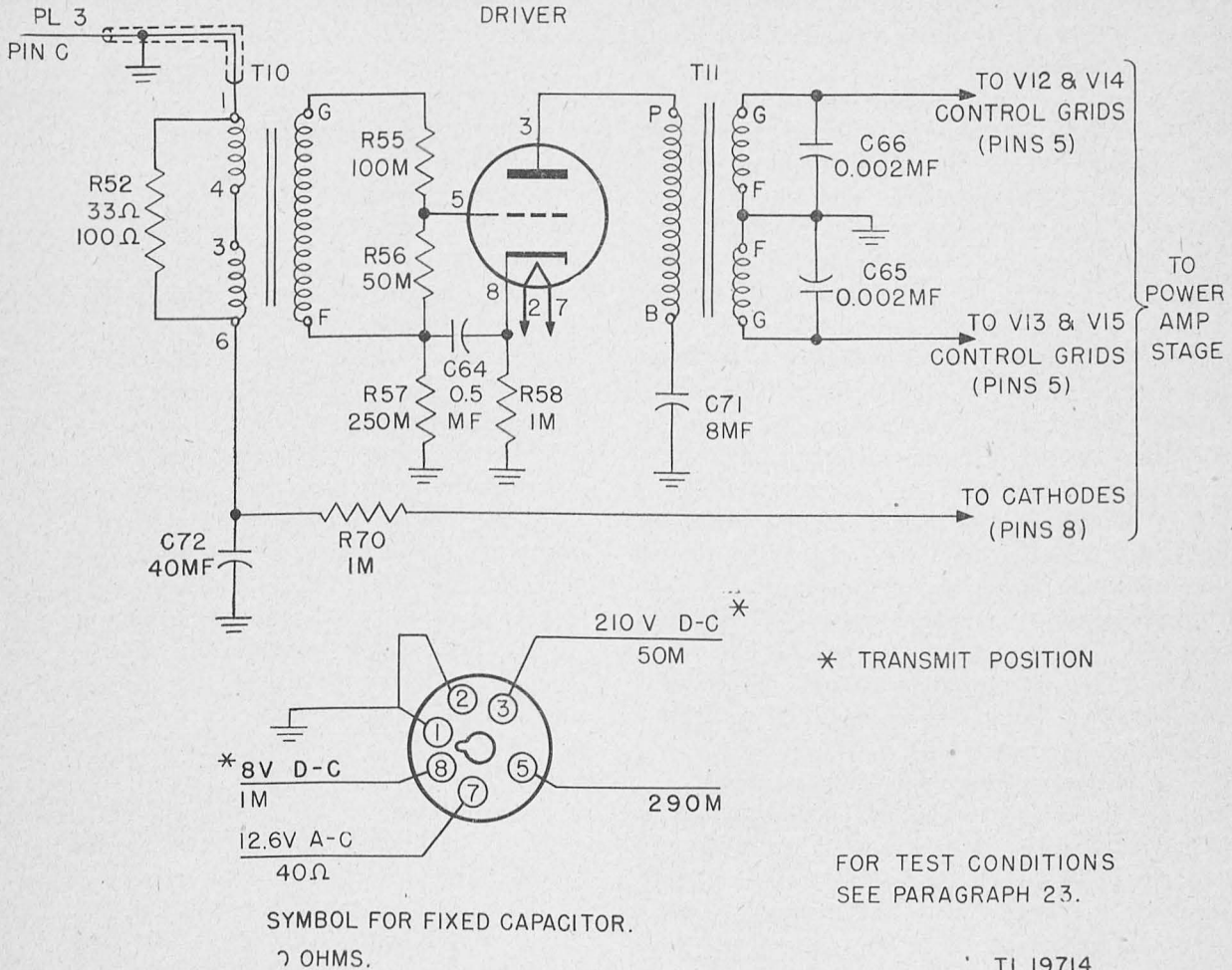
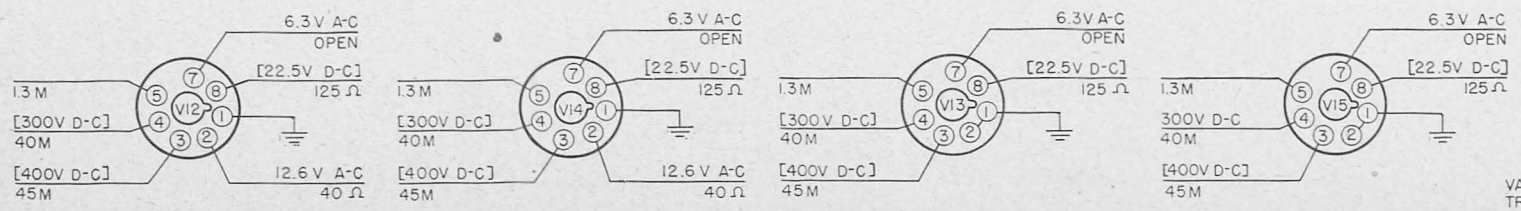
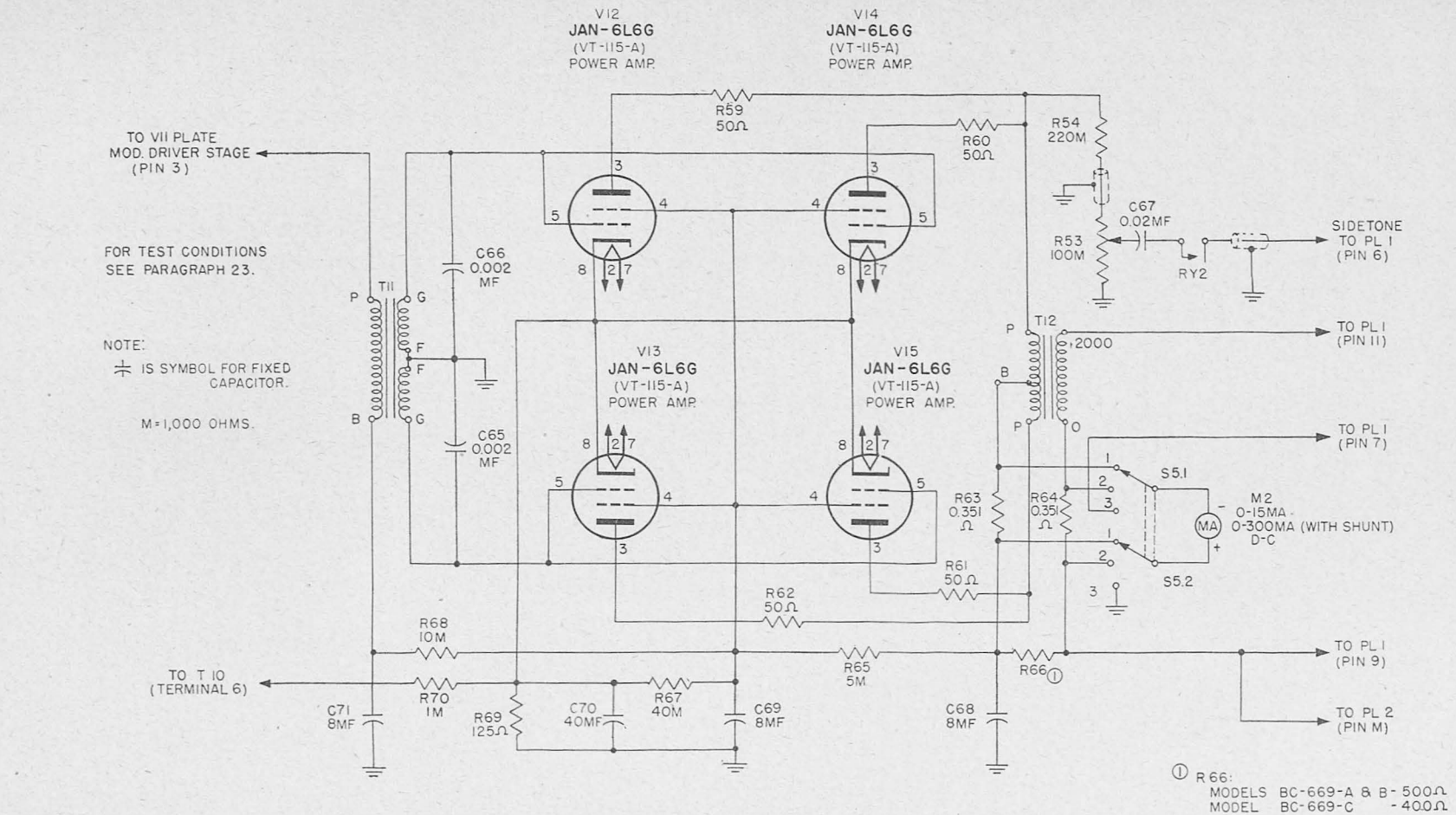


Figure 40. Radio Receiver and Transmitter BC-669-(*) modulator low-level microphone voltage amplifier stage, schematic diagram.

c. PARTS DATA.

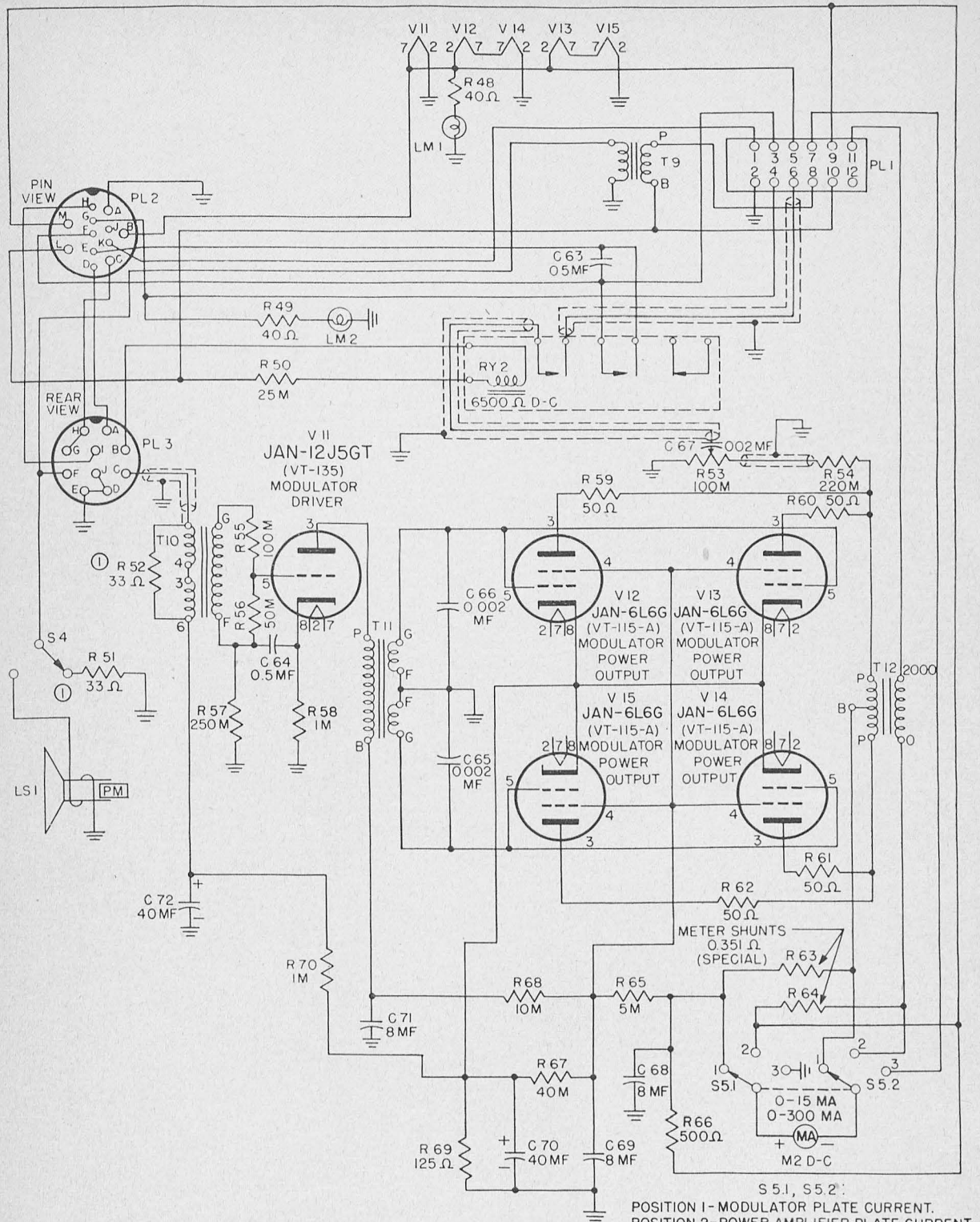
Ref. symbol	Signal Corps stock No.	Name of part and description	Function
C64	3DA500-73	CAPACITOR: 0.5 mf +14% -6%; 200 vdcw; paper, oil-filled; bathtub type	V11 cathode bypass.
C72	3DB40-17	CAPACITOR: dual; 40 mf, +65% -0; 100 vdcw; dry electrolytic tubular 5-pin plug-in	V12, V13, V14, V15, cathode bypass.
R52	3Z6010-18	RESISTOR: 100 ohms ±10%; ½ watt; insulated wire-wound	T10 pri load.
R52	3Z6010-18	RESISTOR: 35 ohms ±10%; 2 watts; insulated carbon	T10 pri load.
R55	3Z6010-18	RESISTOR: 100,000 ohms ±10%; ½ watt; insulated carbon	V11 input voltage divider.
R56	3Z6650-45	RESISTOR: 50,000 ohms ±10%; ½ watt; insulated carbon	V11 grid load.
R57	3Z6725-17	RESISTOR: 250,000 ohms ±10%; ½ watt; insulated carbon	V11 grid circuit filter.
R58	3Z4525	RESISTOR: 1,000 ohms ±10%; ½ watt; insulated carbon	V11 cathode bias.
R70	3Z6100-34	RESISTOR: 1,000 ohms ±10%; 2 watts; insulated wire-wound	Mic voltage filter and dropping.
T10	2Z9631.45	TRANSFORMER: microphone; pri to match 400-ohm carbon microphone; sec to match single class A grid; metal case	Microphone T-24() input to V11 grid.
V11		TUBE: JAN-12J5GT, VT-135	Modulator driver.
V11 B,C*		TUBE: JAN-12J5GT, VT-135	Modulator driver.

* Applies only to models indicated.





VALUES IN [] ARE FOR TRANSMIT OPERATION.
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Figure 41. Radio Receiver and Transmitter BC-669-(*), modulator class AB1-af power-amplifier stage, schematic diagram



① 100.Ω WITH DIFFERENT ISSUES OF THE SAME MODEL.

NOTE:

-  IS SYMBOL FOR FIXED CAPACITOR
-  IS SYMBOL FOR VARIABLE CAPACITOR

M = 1,000 OHMS

S 5.1, S 5.2:
 POSITION 1 - MODULATOR PLATE CURRENT.
 POSITION 2 - POWER AMPLIFIER PLATE CURRENT.
 POSITION 3 - POWER AMPLIFIER GRID CURRENT.

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Figure 48. Radio Receiver and Transmitter BC-669-A, modulator section, schematic diagram.

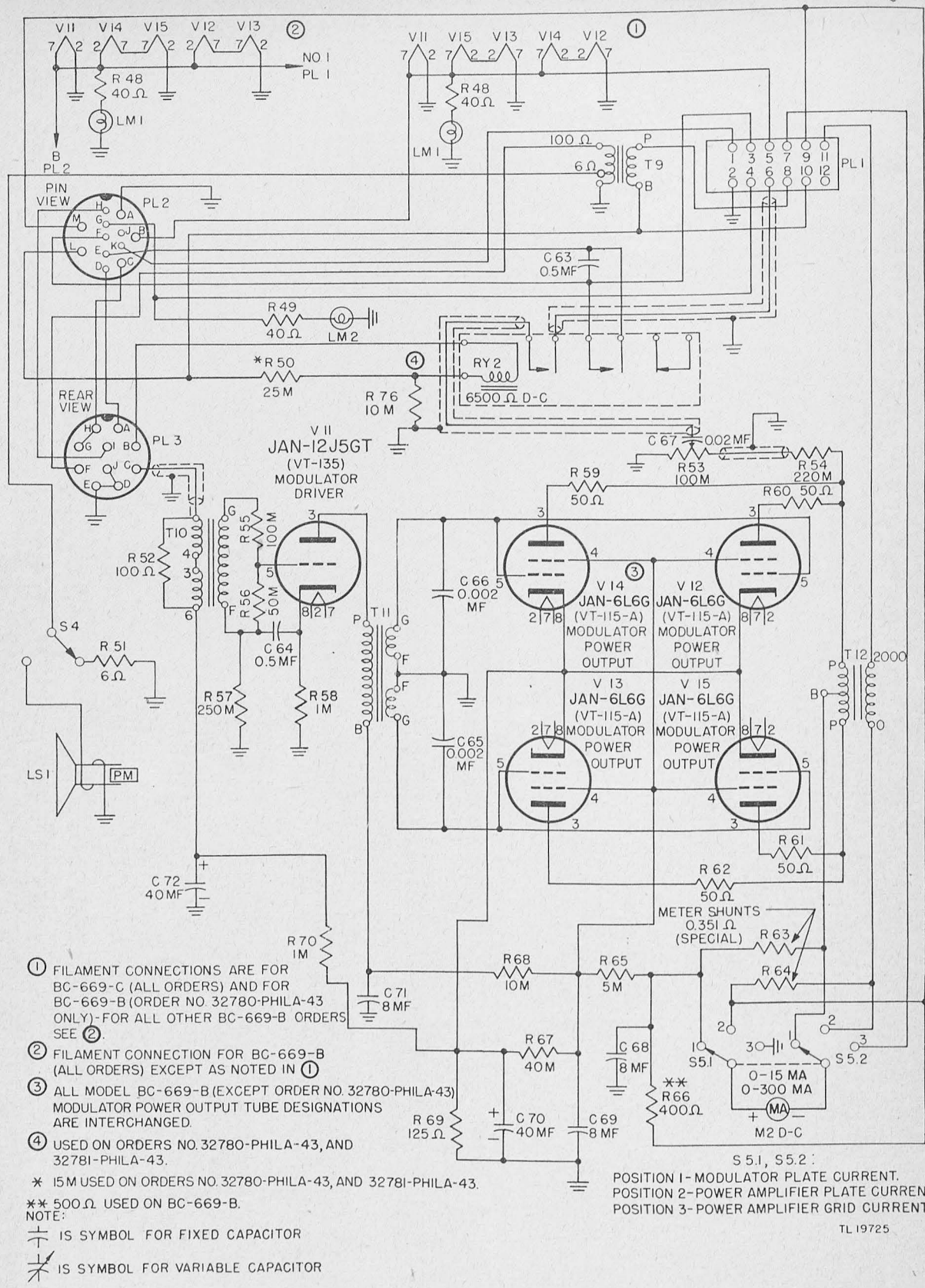


Figure 49. Radio Receiver and Transmitter BC-669-B and -C, modulator section, schematic diagram.

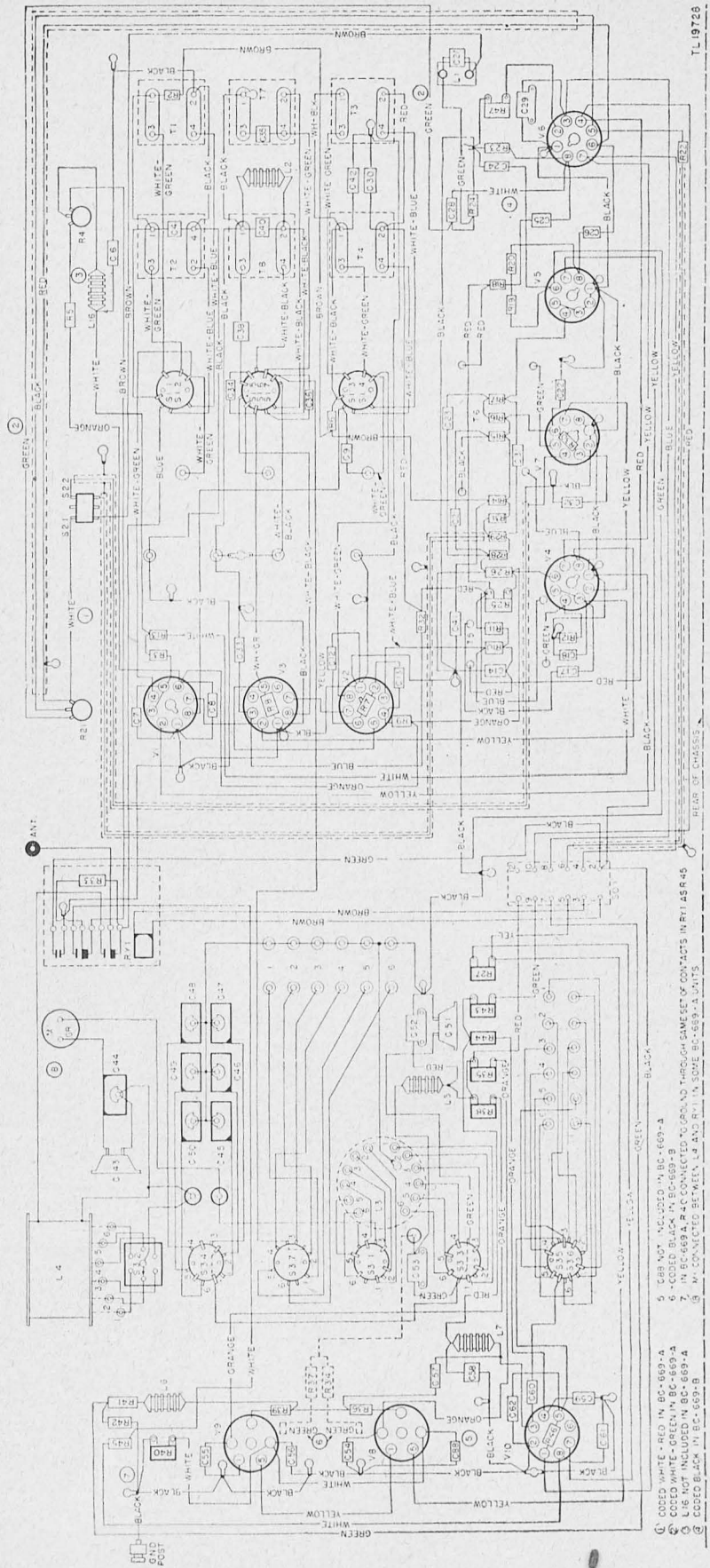


Figure 50. Radio Receiver and Transmitter BC-669-A, -B, and -C, receiver and transmitter, practical wiring diagram.

- 1 CODED WHITE - RED IN BC-669-A
- 2 CODED WHITE - GREEN IN BC-669-B
- 3 CODED WHITE - GREEN IN BC-669-C
- 4 L4 IS NOT INCLUDED IN BC-669-A
- 5 C8B NOT INCLUDED IN BC-669-A
- 6 CODED BLACK IN BC-669-B
- 7 IN BC-669-A, B & C CONNECTED TO GROUND THROUGH SAME SET OF CONTACTS IN PT1 #5R-46
- 8 W1 CONNECTED BETWEEN L4 AND WALL INSIDE 80-8692-A UNITS
- 9 W2 CONNECTED BETWEEN L4 AND WALL INSIDE 80-8692-A UNITS

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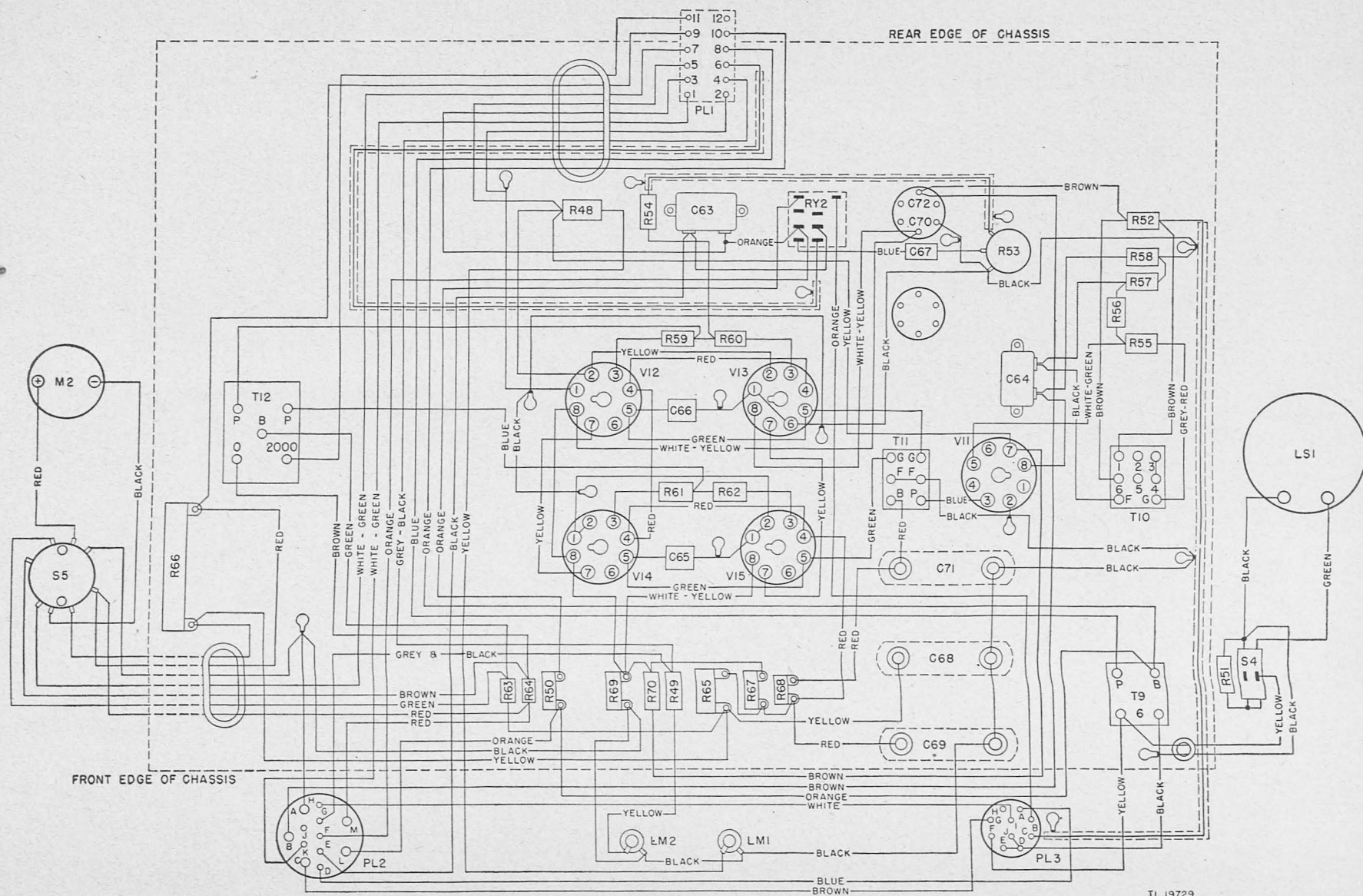


Figure 51. Radio Receiver and Transmitter BC-669-A, modulator section, practical wiring diagram.

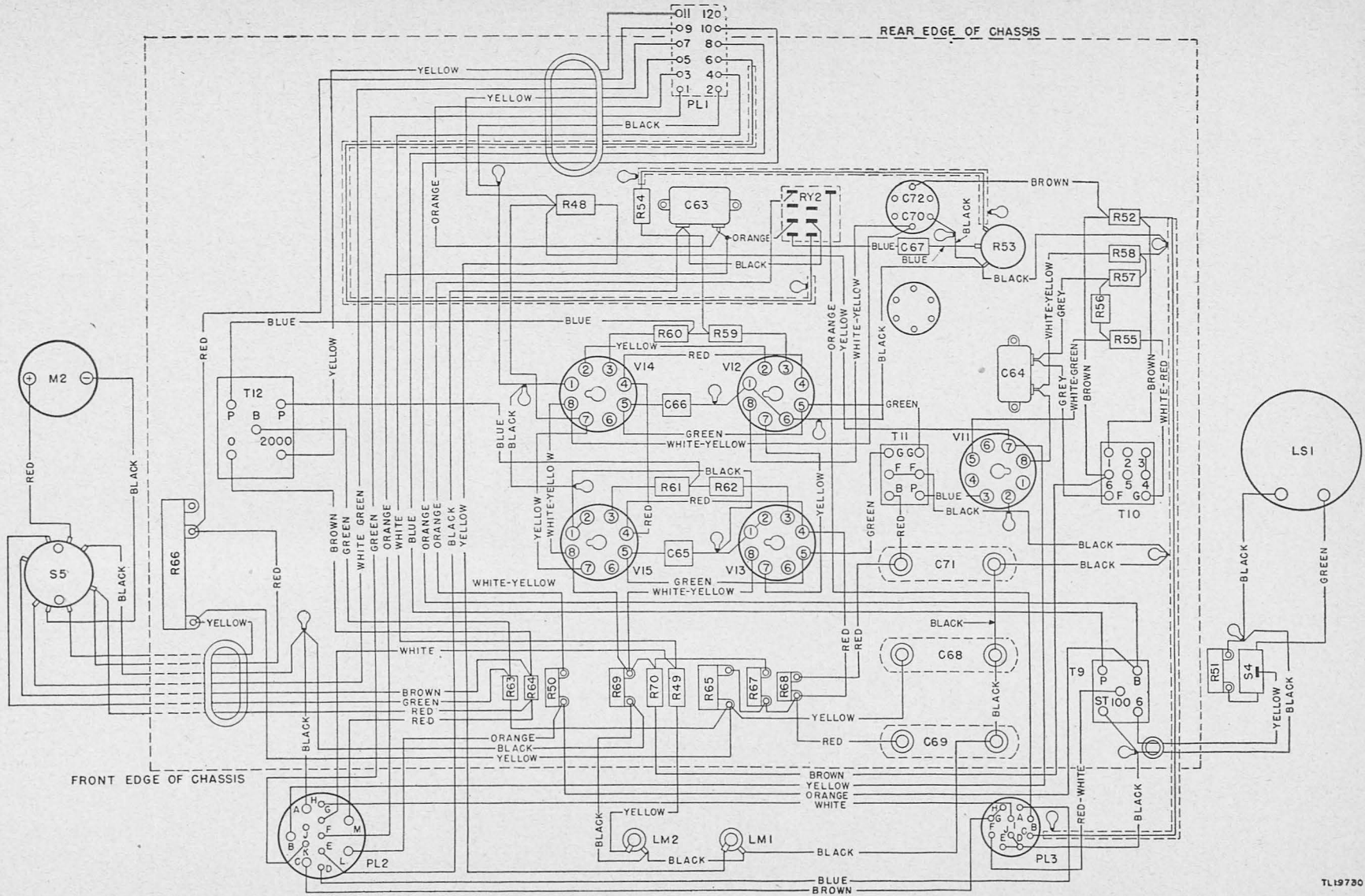


Figure 52. Radio Receiver and Transmitter BC-669-B, modulator section, practical wiring diagram.

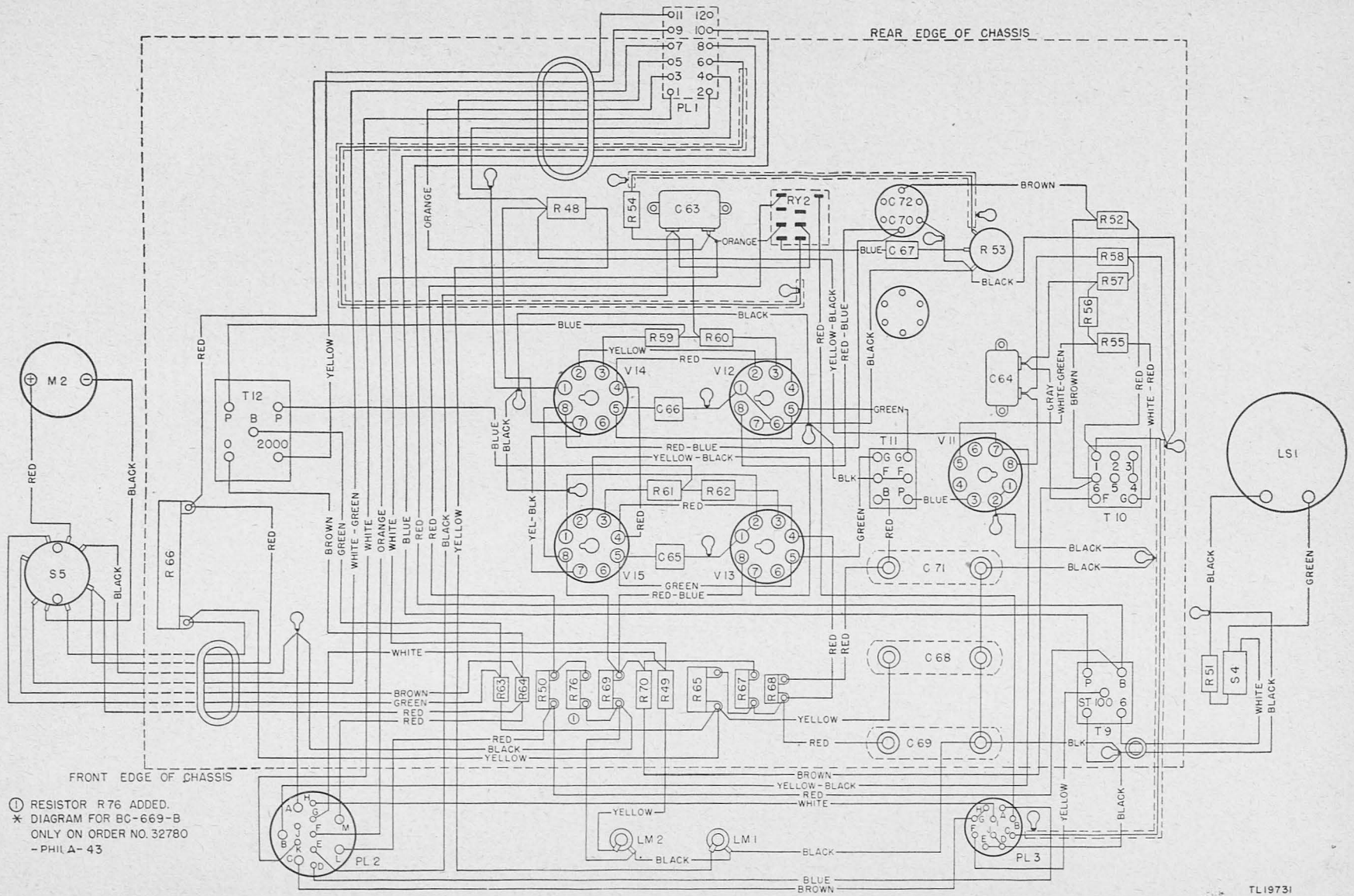
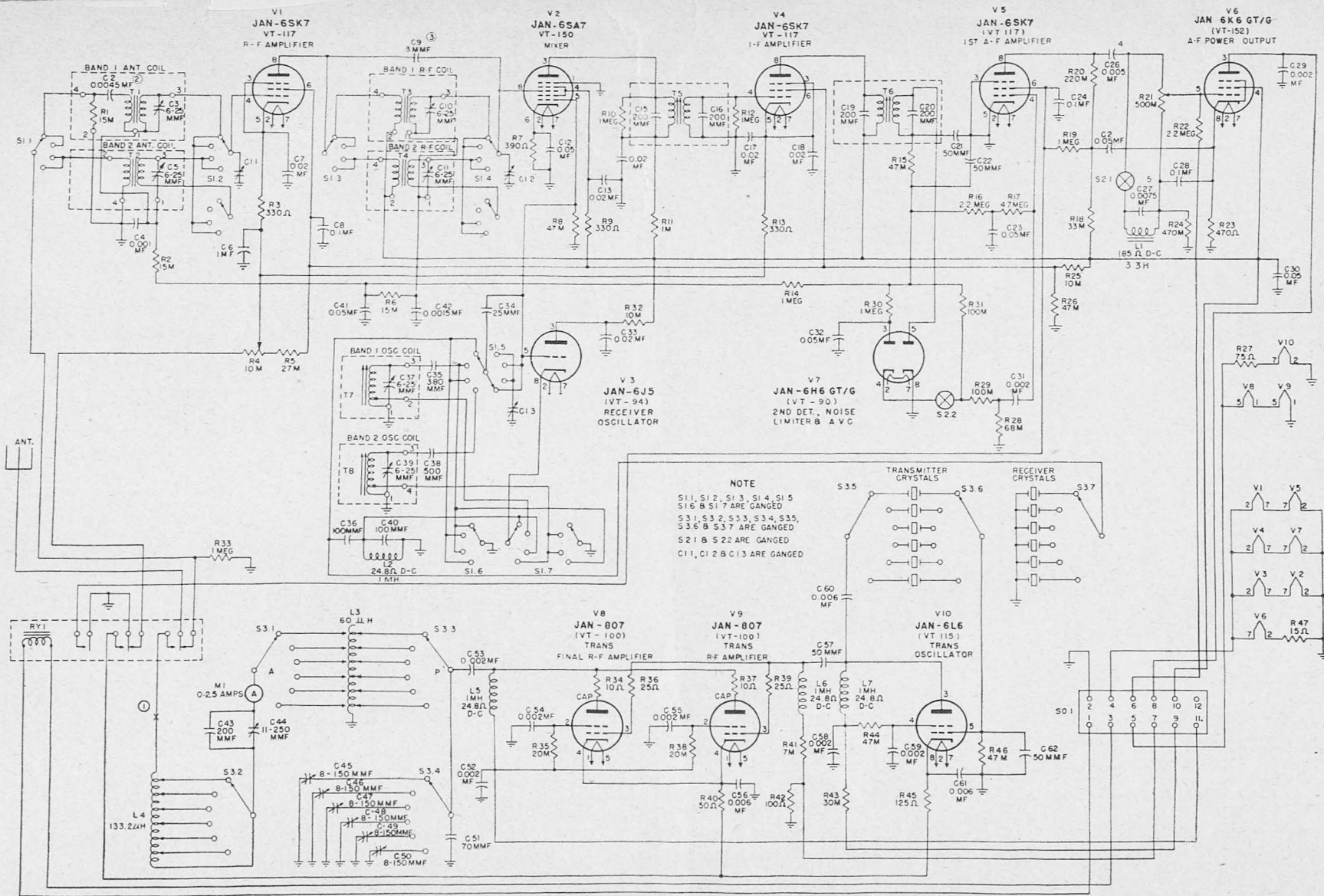


Figure 53. Radio Receiver and Transmitter BC-669-C, modulator section, practical wiring diagram.

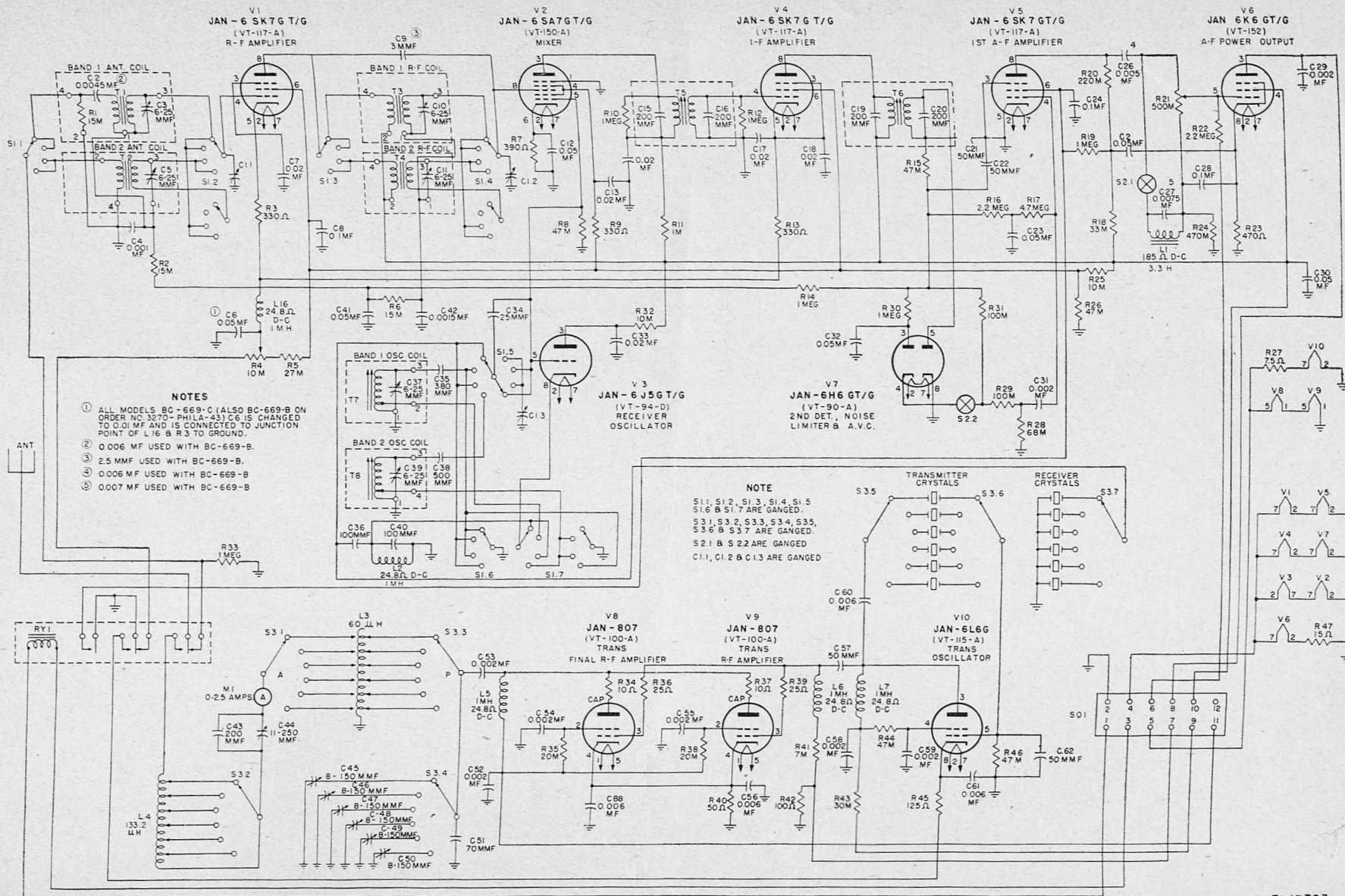


NOTE: ○ SOME EARLY UNITS HAD MI SERIES CONNECTED AT X

⊢ IS SYMBOL FOR FIXED CAPACITOR
 ⊢ IS SYMBOL FOR VARIABLE CAPACITOR

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Figure 54. Radio Receiver and Transmitter BC-669-A, schematic diagram.



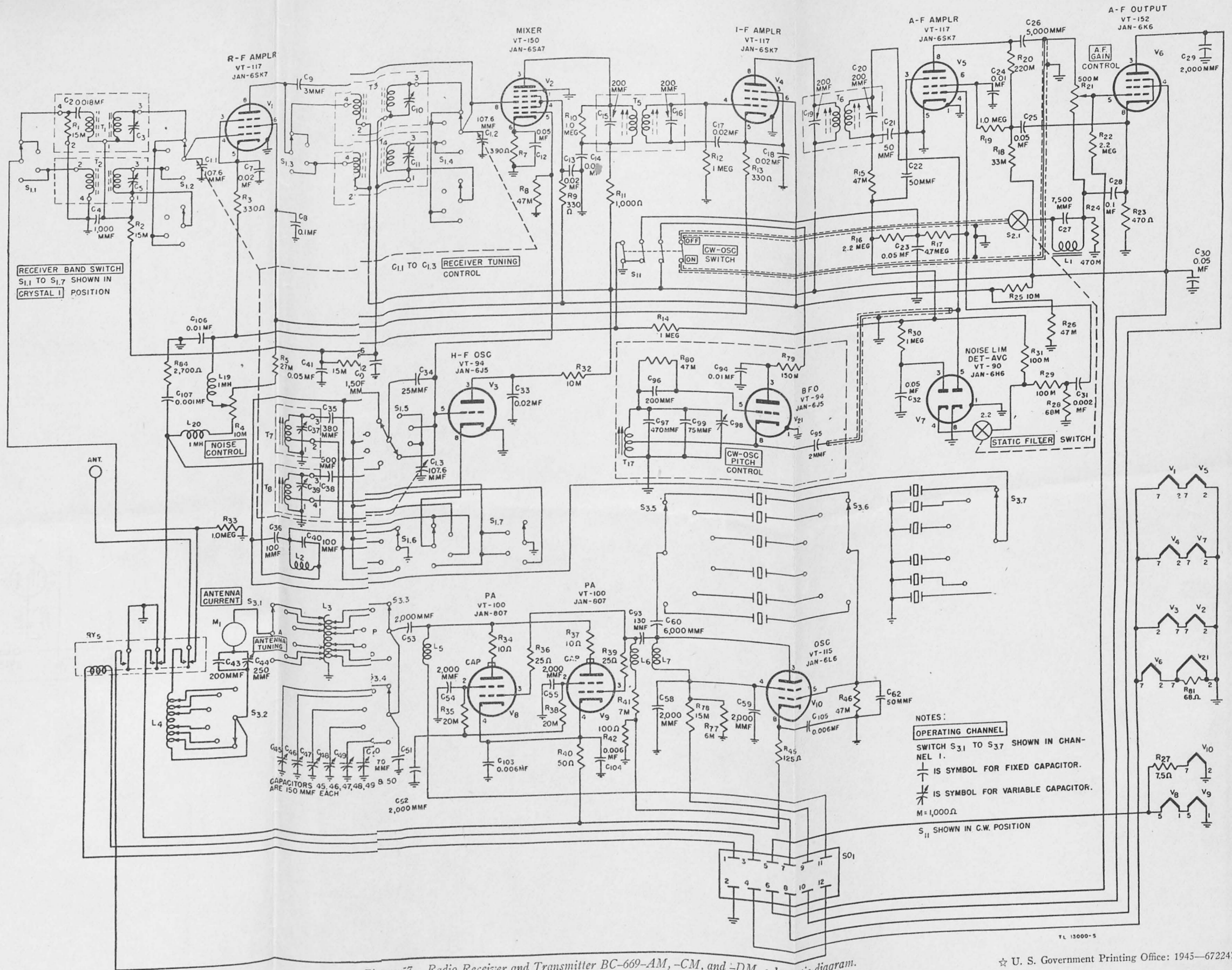
NOTE: --- IS SYMBOL FOR FIXED CAPACITOR.
 --- IS SYMBOL FOR VARIABLE CAPACITOR.

Figure 55. Radio Receiver and Transmitter BC-669-B and -C, schematic diagram.

REF SYMBOL	VALUE	RATING
C1.1	107.6 MMF	
C1.2	107.6 MMF	
C1.3	107.6 MMF	300 VDCW
C2	0.018 MF	
C3	6-25 MMF (VARIABLE)	500 VDCW
C4	1,000 MMF	
C5	6-25 MMF (VARIABLE)	200 VDCW
C6	BC-669-A, 1 MF	400 VDCW
	BC-669-B, 0.05 MF	400 VDCW
	BC-669-C, 0.01 MF	400 VDCW
	BC-669-A, 0.02 MF	400 VDCW
	AND -C, 3 MMF	500 VDCW
	BC-669-B, 2.5 MMF	500 VDCW
	6-25 MMF (VARIABLE)	400 VDCW
	6-25 MMF (VARIABLE)	400 VDCW
C10	0.02 MF	600 VDCW
C11	0.02 MF	600 VDCW
C12	0.02 MF	600 VDCW
C13	200 MMF	500 VDCW
C14	200 MMF	500 VDCW
C15	200 MMF	500 VDCW
C16	200 MMF	500 VDCW
C17	0.02 MF	400 VDCW
C18	0.02 MF	500 VDCW
C19	0.02 MF	500 VDCW
C20	50 MMF	500 VDCW
C21	50 MMF	500 VDCW
C22	50 MMF	500 VDCW
C23	50 MMF	500 VDCW
C24	0.1 MF	500 VDCW
C25	0.05 MF	600 VDCW
C26	5,000 MMF	300 VDCW
C27	BC-669-A AND -C, 7,500 MMF	400 VDCW
	BC-669-B, 7,000 MMF	400 VDCW
	0.1 MF	2,500 VDCW
C29	2,000 MMF	500 VDCW
C30	0.05 MF	600 VDCW
C31	2,000 MMF	400 VDCW
C32	0.05 MF	600 VDCW
C33	0.02 MF	500 VDCW
C34	25 MMF	300 VDCW
C35	380 MMF	500 VDCW
C36	100 MMF	500 VDCW
C37	6-25 MMF (VARIABLE)	500 VDCW
C38	500 MMF	500 VDCW
C39	6-25 MMF (VARIABLE)	500 VDCW
C40	100 MMF	400 VDCW
C41	0.05 MF	500 VDCW
C42	1,500 MMF	1,430 VACW
C43	200 MMF	
C44	11-250 MMF (VARIABLE)	
C45	8-150 MMF (VARIABLE)	
C46	8-150 MMF (VARIABLE)	
C47	8-150 MMF (VARIABLE)	
C48	8-150 MMF (VARIABLE)	
C49	8-150 MMF (VARIABLE)	
C50	8-150 MMF (VARIABLE)	1,140 VACW
C51	70 MMF	2,500 VDCW
C52	2,000 MMF	

REF SYMBOL	VALUE	RATING
C53	2,000 MMF	2,500 VDCW
C54	2,000 MMF	2,500 VDCW
C55	2,000 MMF	2,500 VDCW
C56	6,000 MMF	400 VDCW
C57	50 MMF	500 VDCW
C58	2,000 MMF	600 VDCW
C59	6,000 MMF	600 VDCW
C60	6,000 MMF	600 VDCW
C61	6,000 MMF	600 VDCW
C62	50 MMF	500 VDCW
C63	6,000 MMF	600 VDCW

REF SYMBOL	VALUE	RATING
R1	15,000 OHMS	1/2 W
R2	15,000 OHMS	1/2 W
R3	330 OHMS	1/2 W
R4	10,000 OHMS (POTENTIOMETER)	
R5	27,000 OHMS	1 W
R6	15,000 OHMS	1/2 W
R7	390 OHMS -	1/2 W
R8	47,000 OHMS	1/2 W
R9	330 OHMS	1/2 W
R10	1 MEGOHM	1/2 W
R11	1 MEGOHM	1/2 W
R12	330 OHMS	1/2 W
R13	330 OHMS	1/2 W
R14	1 MEGOHM	1/2 W
R15	47,000 OHMS	1/2 W
R16	2.2 MEGOHMS	1/2 W
R17	4.7 MEGOHMS	1/2 W
R18	33,000 OHMS	1/2 W
R19	1 MEGOHM	1/2 W
R20	220,000 OHMS	1/2 W
R21	500,000 OHMS (POTENTIOMETER)	
R22	2.2 MEGOHMS	1/2 W
R23	470 OHMS	2 W
R24	470,000 OHMS	1/2 W
R25	10,000 OHMS	10 W
R26	47,000 OHMS	1 W
R27	7.5 OHMS	10 W
R28	68,000 OHMS	1/2 W
R29	100,000 OHMS	1/2 W
R30	1 MEGOHM	1/2 W
R31	100,000 OHMS	1/2 W
R32	10,000 OHMS	2 W
R33	1 MEGOHM	2 W
R34	10 OHMS	2 W
R35	20,000 OHMS	10 W
R36	25 OHMS	1/2 W
R37	10 OHMS	2 W
R38	20,000 OHMS	10 W
R39	25 OHMS	1/2 W
R40	50 OHMS	10 W
R41	7,000 OHMS	2 W
R42	100 OHMS	1/2 W
R43	15,000 OHMS	10 W
R44	47,000 OHMS	1 W
R45	125 OHMS	1/2 W
R46	47,000 OHMS	1 W
R47	15 OHMS	10 W



NOTES:
 OPERATING CHANNEL
 SWITCH S₃₁ TO S₃₇ SHOWN IN CHANNEL 1.
 † IS SYMBOL FOR FIXED CAPACITOR.
 ‡ IS SYMBOL FOR VARIABLE CAPACITOR.
 M = 1,000 Ω
 S₁₁ SHOWN IN C.W. POSITION

Figure 57. Radio Receiver and Transmitter BC-669-AM, -CM, and -DM, schematic diagram.