



Property of  
NIPS

**hallicrafters**  
*continental*

**BROADCAST — SHORTWAVE  
RADIO**

**OPERATING and SERVICE  
INSTRUCTIONS**



**the hallicrafters Canada, Limited**  
TORONTO ONTARIO



## GENERAL DESCRIPTION

Your Hallicrafters Continental provides reception of both the standard broadcast band and the 6 to 18 megacycle shortwave range. It is a 5 tube superheterodyne radio and is designed to operate from 105 to 125 volt direct current (DC) or 50/60 cycle alternating current (AC).

Fine performance of both standard and shortwave broadcasts can be obtained with the 15 foot antenna wire included with your receiver. It is merely necessary to uncoil this wire, connect one end of it to terminal A1 on the back of the set and then run it about the room in any convenient manner. To complete the antenna installation, the jumper should be connected between terminals A2 and G on the back of the set.

For your convenience, the principal shortwave stations of the world have been clearly marked on the dial. Since shortwave reception conditions vary with the season of the year and even with the time of day, shortwave programs may not be heard with the same regularity as standard broadcasts. It is important, therefore, that you refer to the table below as it provides an easy means of selecting the shortwave band most suitable to the time of day.

To get the maximum enjoyment from your Hallicrafters radio, carefully follow the instructions contained in this book.

**BEST SHORTWAVE RECEPTION TABLE**

BAND	MOST FAVORABLE TIME	MOST FAVORABLE DISTANCE
6-7 MC	Night - Winter	Day-400 Miles Night - Over 1500 Miles
9-10 MC	Day - Late Afternoon and Night - Winter	Over 500 Miles
11-12 MC	Evenings or Late Summer Afternoons	Day - Under 1500 Miles Night - Over 1500 Miles
15-18 MC	Early Mornings and Summer Evenings	Over 1500 Miles

## INSTALLATION INSTRUCTIONS

**UNPACKING** - Check all shipping labels and tags for instructions before removing or destroying them.

**LOCATION** - Do not locate the receiver close to sources of heat such as radiators and heating vents. Allow for proper ventilation of the receiver by placing it at least two or three inches away from the wall.

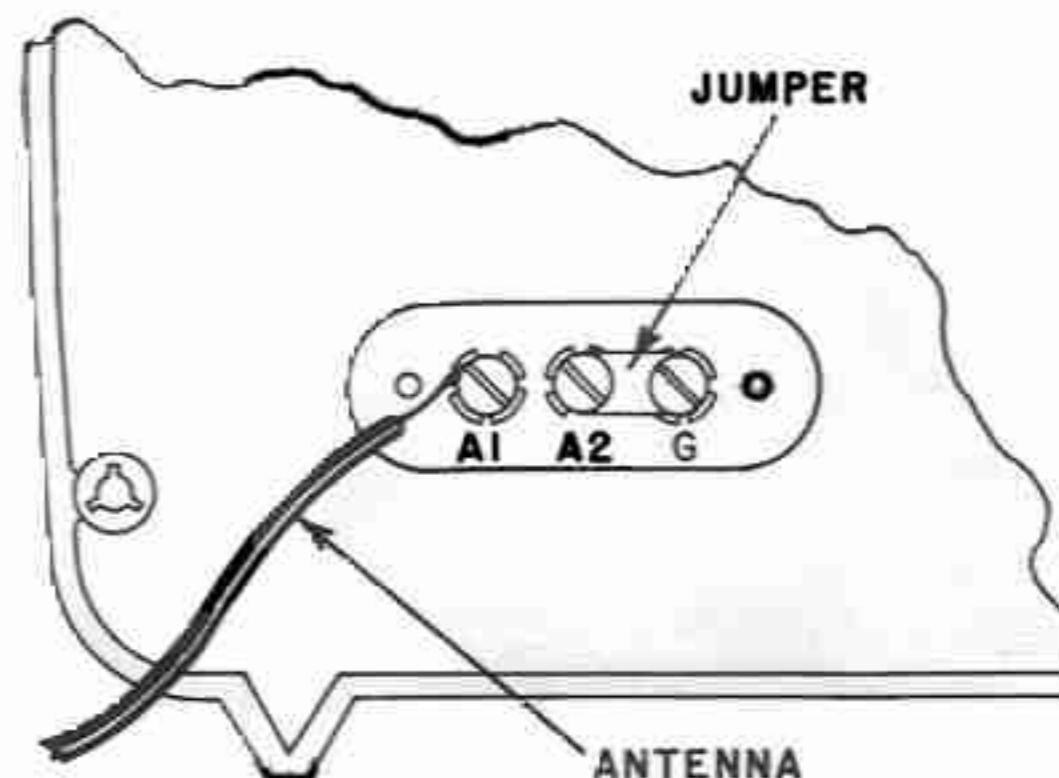
**ANTENNA** - The terminals marked A1, A2 and G on the back of the receiver are for antenna and ground connections. Satisfactory results can be obtained in most localities with the 15 foot antenna wire included with your receiver. This wire should be uncoiled for maximum signal pickup. An outside antenna 30 to 60 feet long may be necessary if the receiver is to be operated in a steel constructed building or in an area surrounded by numerous steel structures. The antenna used should be connected to terminal A1 on the antenna terminal strip. The jumper provided on this strip should be connected between terminals A2 and G. In some locations, reception may be improved by connecting a lead from terminal G to a cold water pipe or other good ground.



**HALLICRAFTERS CONTINENTAL**

Models 5R30A, 5R31A, 5R32A, 5R33A and 5R34A

92X1589-A



9281567

**Fig. 1. Rear View of Receiver Showing Antenna and Ground Connections**



# OPERATING INSTRUCTIONS

## TUNING DIAL

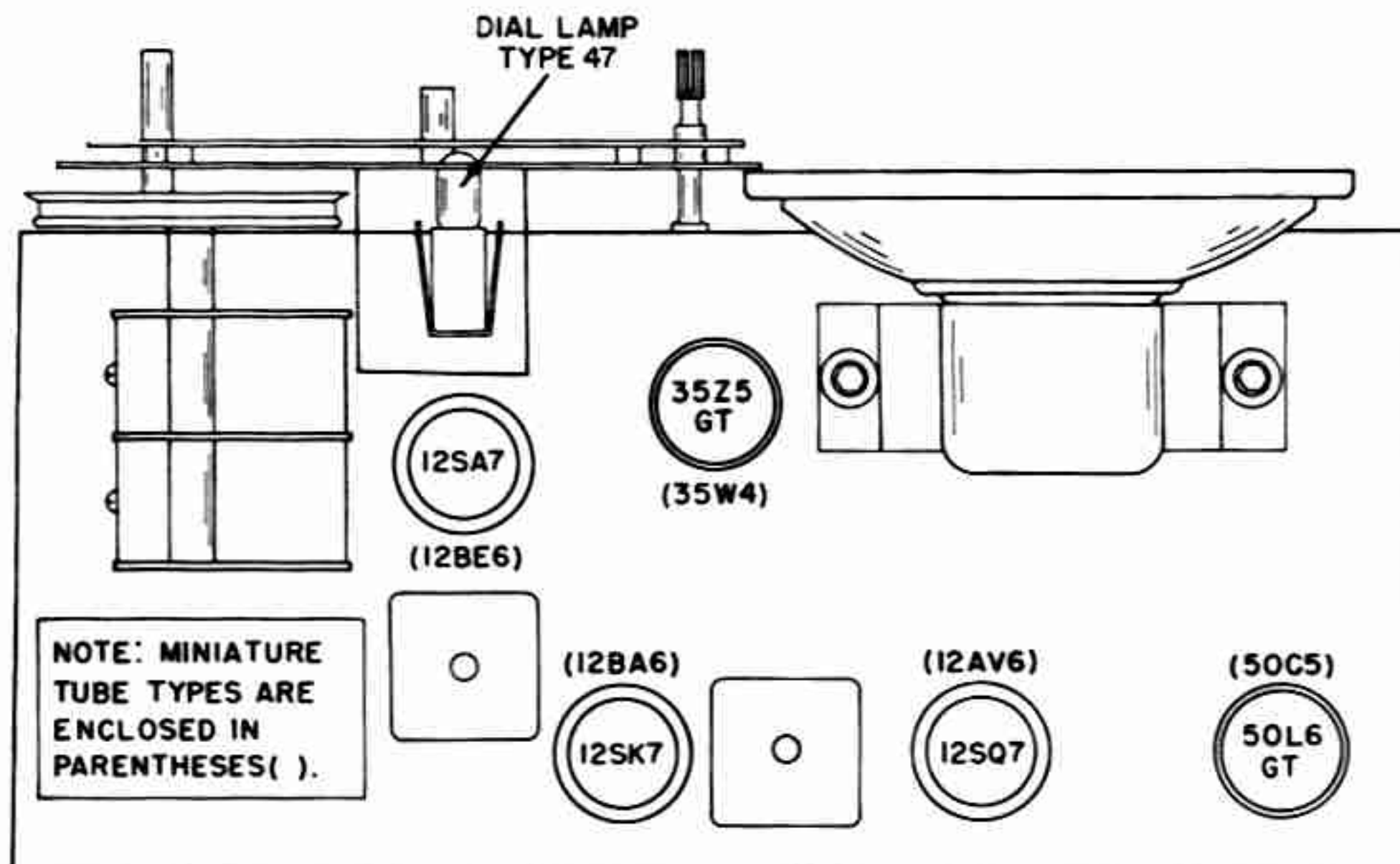
1. The standard broadcast band is calibrated in kilocycles with a zero deleted for convenience. To convert the dial reading to the station frequency in kilocycles, add one zero.
2. The shortwave band is calibrated directly in megacycles.

## STANDARD BROADCAST AND SHORTWAVE RECEPTION

1. Plug the power cord into a convenient electrical outlet which provides 105 to 125 volts DC or 50/60 cycles AC. If in doubt about your power supply, call your power company before plugging in the receiver. The wrong power source may cause damage to the receiver.
2. Turn the right hand knob clockwise for standard broadcast reception or counterclockwise for shortwave reception.
3. The large center knob turns the receiver on and off and also controls volume. Turn this knob clockwise to turn the receiver on. Allow about a minute for the receiver to warm up.

**NOTE:** If the receiver does not operate after the one minute warm up when connected to a DC source, the power plug should be reversed in the wall outlet to obtain proper polarity.

4. Tune in the desired station by rotating the left hand knob until the dial pointer indicates the station frequency.
5. After the station has been accurately tuned in, adjust the center knob for the desired volume.
6. To turn the receiver off, turn the center knob counterclockwise until a click is heard.



**Fig. 2. Top View of Chassis Showing Location of Tubes and Dial Lamp**

95C1590-A

**SERVICE OR OPERATING QUESTIONS** - For further information regarding operation or servicing of your receiver, contact your dealer. Make no service shipments to the factory as the Hallicrafters Co. will not accept the responsibility for unauthorized shipments. Factory type service is available, however, at any **HALLICRAFTERS AUTHORIZED SERVICE CENTER** which displays the sign shown at the right. For the location of the one nearest you, consult your dealer or telephone directory.

The Hallicrafters Co. reserves the privilege of making revisions in current production of equipment and assumes no obligation to incorporate these revisions in earlier models.



94X1401-R



# SERVICE INSTRUCTIONS

## SPECIFICATIONS

Tubes . . . . . 5 including 1 rectifier  
 Speaker . . . . . 5 inch PM  
 Voice Coil Impedance . . . . . 3.2 ohms  
 Intermediate Frequency . . . . . 455 KC  
 Antenna . . . . . Single wire or doublet  
 Power Supply . . . . . 105-125 volts DC or  
 50/60 cycles AC  
 Frequency Coverage . . . . . 540-1620 KC  
 and 6-18 MC

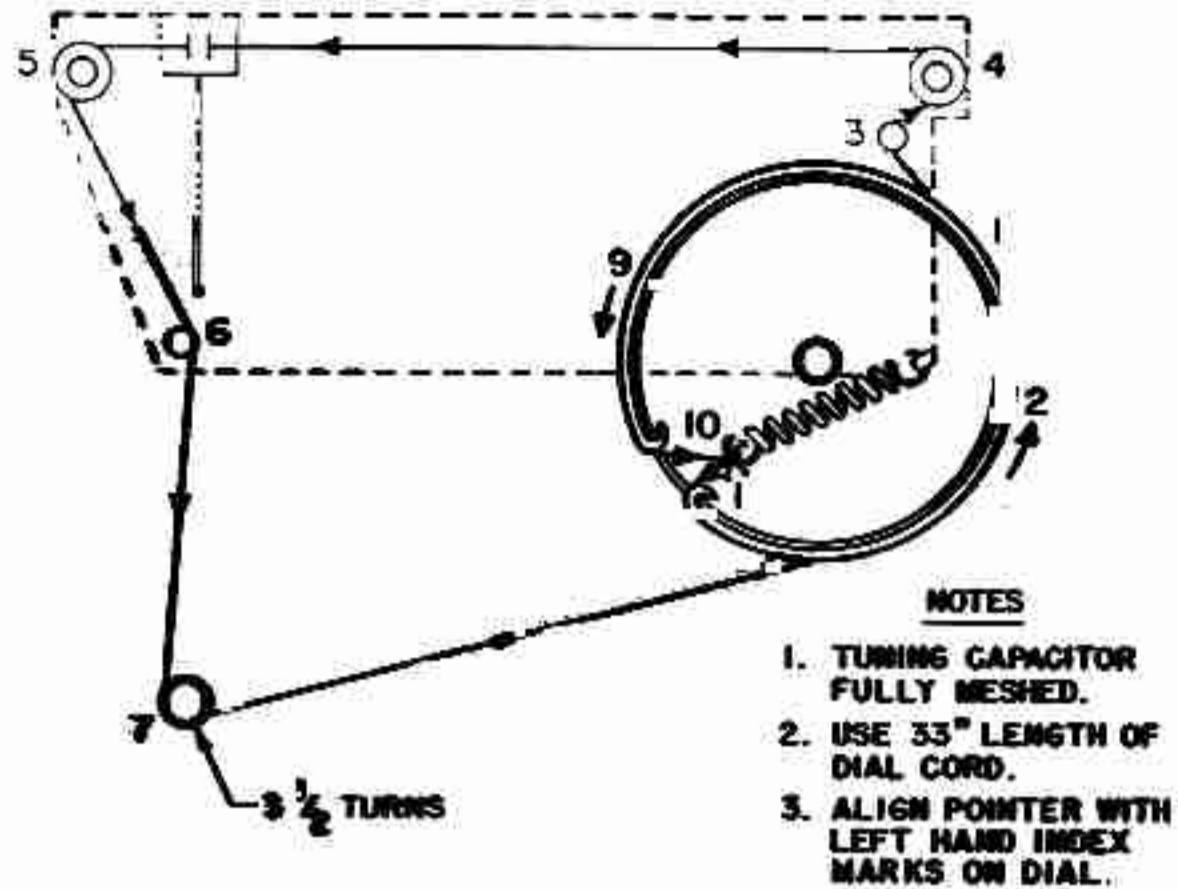


Fig. 3. Dial Cord Stringing Diagram 92C1569-A

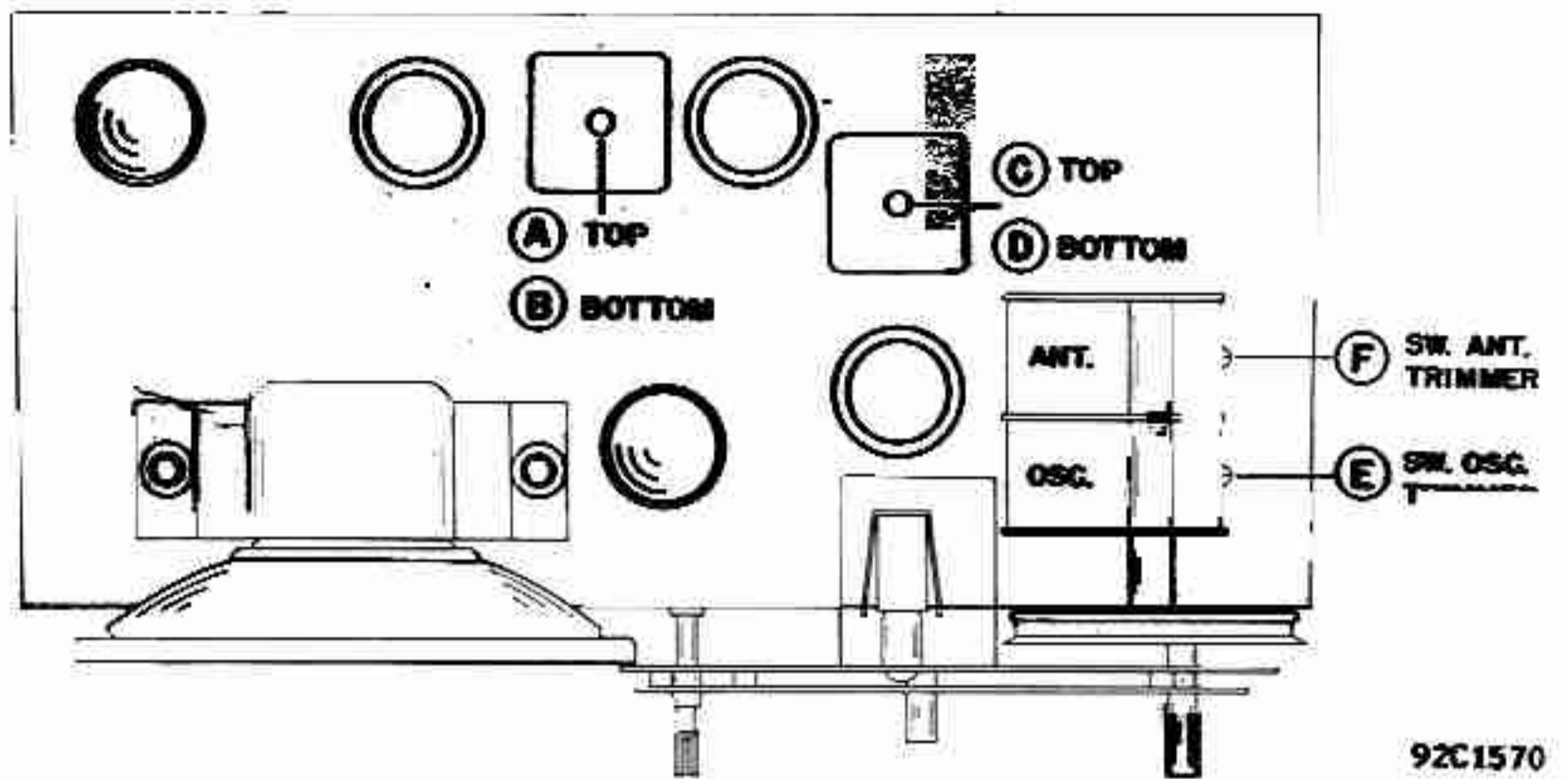


Fig. 4. Top View of Chassis Showing Location of Alignment Adjustments

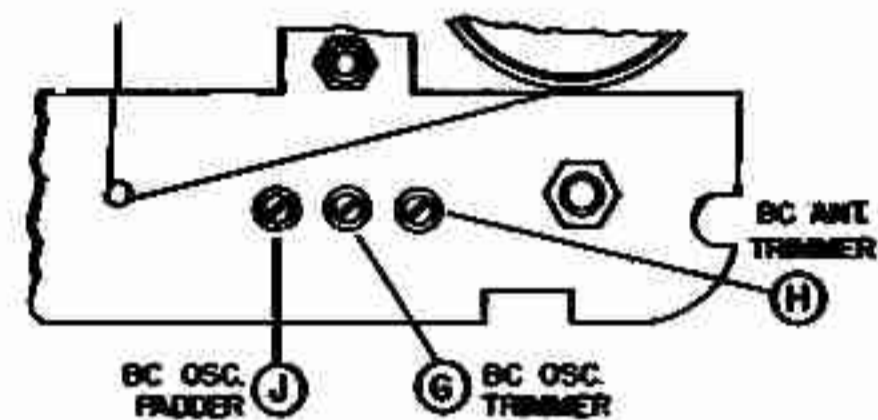


Fig. 5. Front View of Chassis Showing Location of Alignment Adjustments

**TUBE AND DIAL LAMP REPLACEMENT** - Refer to Fig. 2. for the location of the tubes and dial lamp used in the receiver. It will be necessary to remove the back cover from the cabinet to gain access to the tubes and dial lamp. To prevent damage to the tuning capacitor, set the TUNING control fully counterclockwise before making any replacement. When replacing tubes, check the tube type carefully and replace it with the correct type. The dial lamp and socket can be removed by compressing the side springs on the socket. Replacement of the dial lamp should be made with a 6-8 volt, Mazda #47 (brown bead) pilot lamp or equivalent.

### ALIGNMENT PROCEDURE

- Connect output meter across speaker voice coil.
- Set volume control at maximum.
- Use a non-metallic alignment tool.
- Signal generator must have a modulated output and cover 455 KC, 600 KC, 1300 KC and 14 MC.
- Keep the generator output as low as possible to avoid AVC action.
- Refer to Figs. 4 and 5 for location of alignment adjustments.

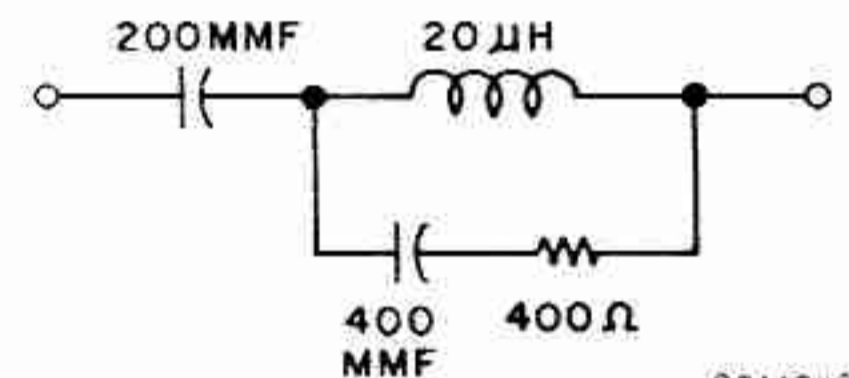
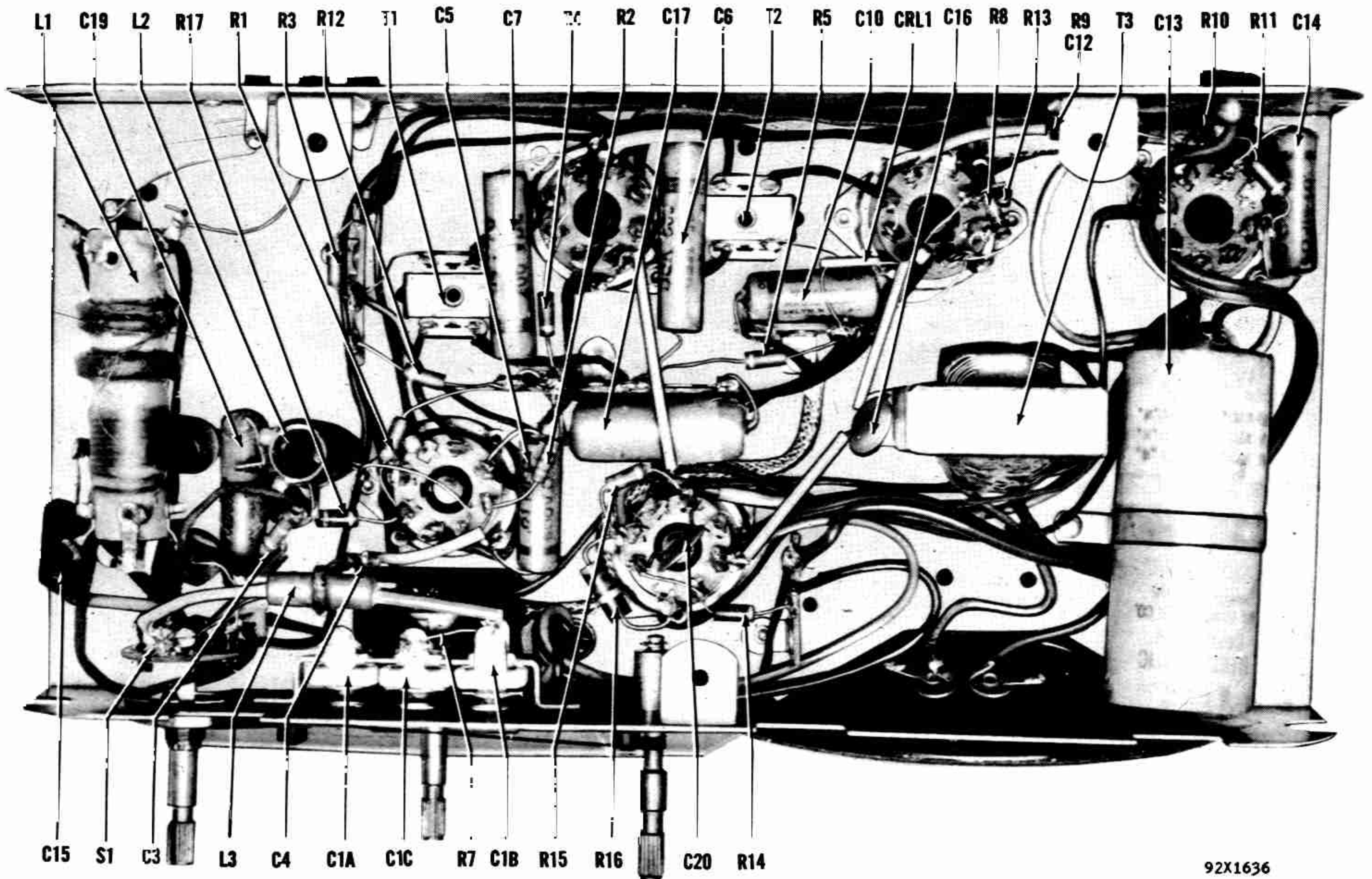


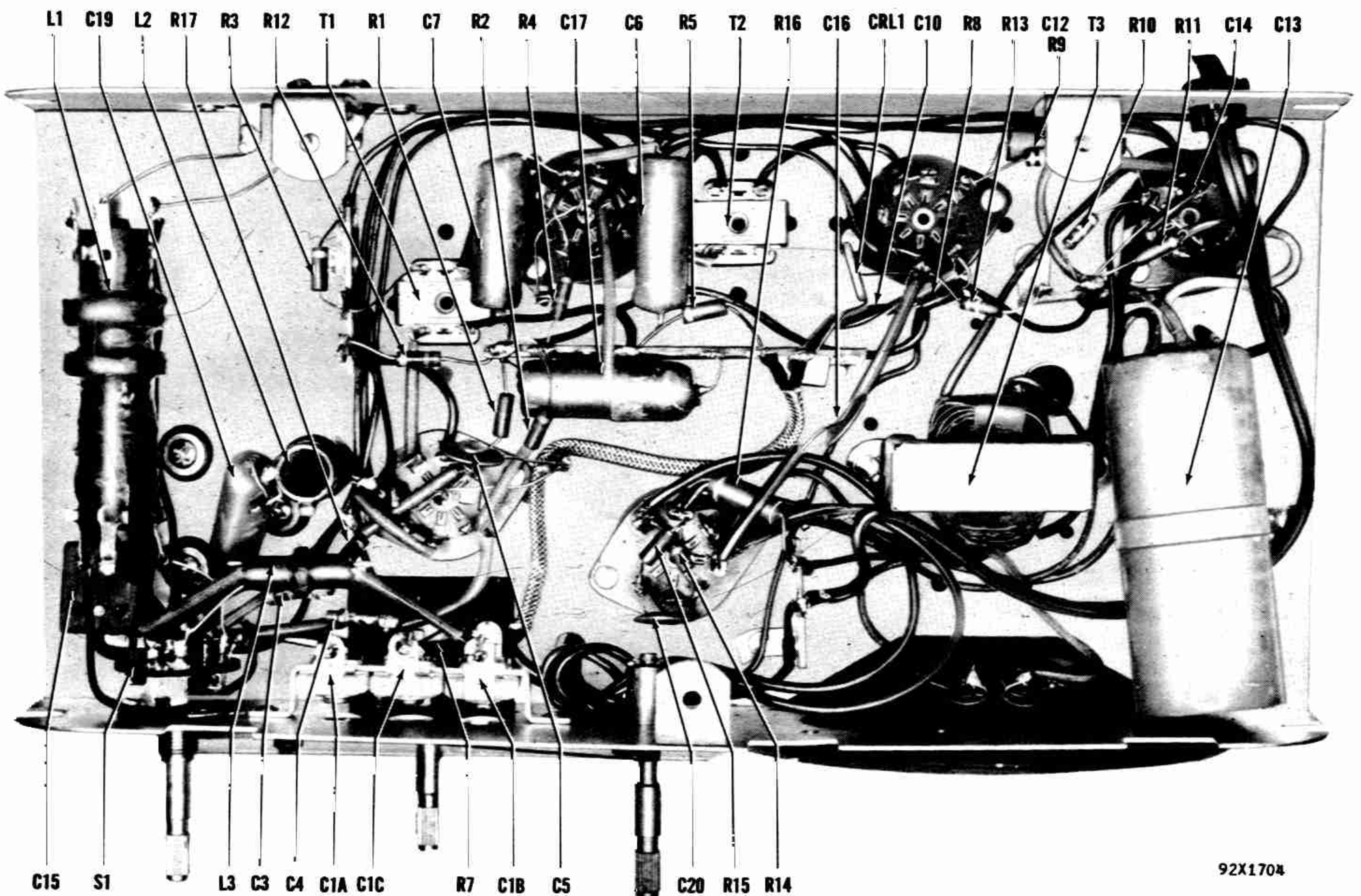
Fig. 6. RTMA Dummy Antenna 92A1549

STEP	SIGNAL GENERATOR CONNECTIONS	SIGNAL GENERATOR FREQUENCY	BAND SWITCH SETTING	RECEIVER DIAL SETTING	ADJUST FOR MAXIMUM OUTPUT
1	High side to stator plates of rear section of tuning capacitor through a .01 mfd. capacitor. Low side to chassis.	455 KC	BROADCAST	1000 KC	A,B, C,D
2	High side to A1 on antenna terminal strip on rear of chassis through a standard RTMA dummy antenna (Fig.6). Low side to chassis. Connect the jumper between A2 and G.	14 MC	SHORTWAVE	14 MC	E,F
3	Same as STEP 2.	1300 KC	BROADCAST	1300 KC	G,H
4	Same as STEP 2.	600 KC	BROADCAST	600 KC	J





**Fig. 7. Bottom View of Chassis Showing Component Location  
(Chassis Using Octal Tubes)**



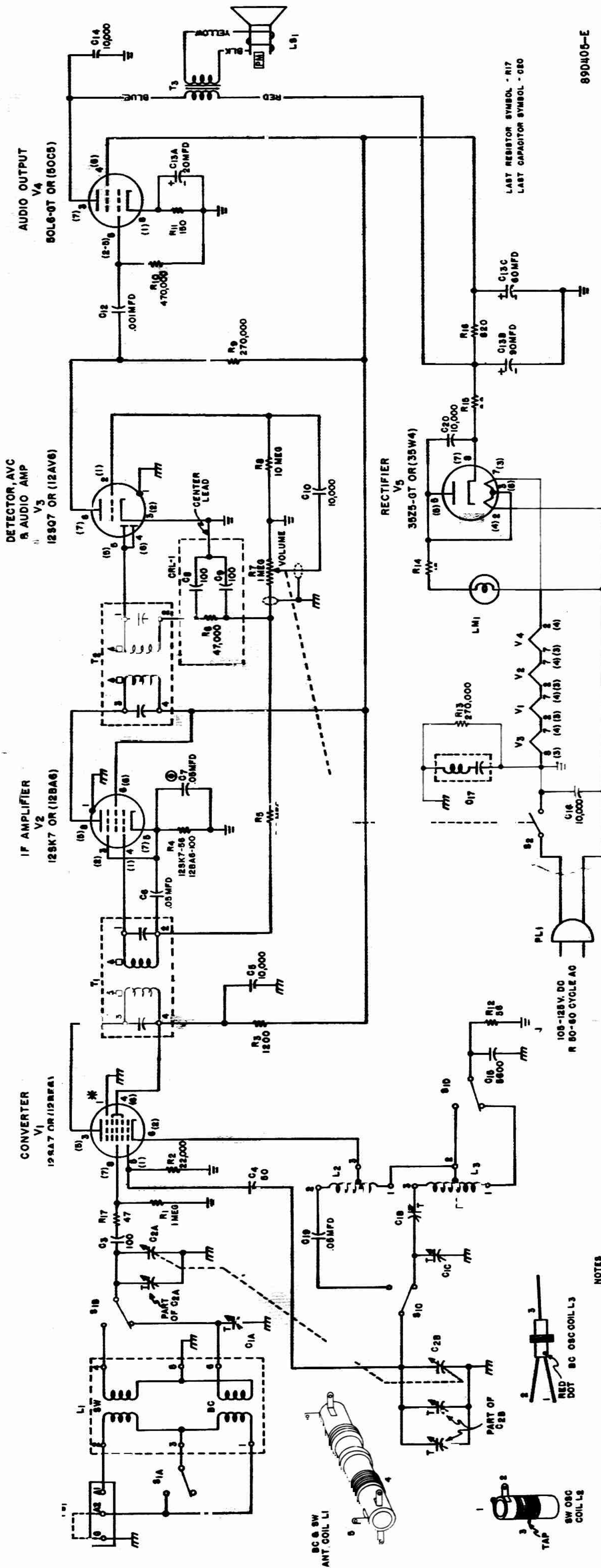
**Fig. 8. Bottom View of Chassis Showing Component Location  
(Chassis Using Miniature Tubes)**



# SERVICE PARTS LIST

Schematic Symbol	Description	Hallicrafters Part Number	Schematic Symbol	Description	Hallicrafters Part Number
<b>CAPACITORS</b>			<b>TUBE COMPLEMENT (MINIATURE)</b>		
C-1A,B & C	Trimmer assembly, 3 section	44C408	V-1	12BE6: converter	90X12BE6
C-2A & B	Tuning capacitor, 2 section	48C282	V-2	12BA6: IF amplifier	90X12BA6
C-3	100 mmf. 500 V., ceramic	47X20UJ101K	V-3	12AV6: detector and audio amplifier	90X12AV6
C-4	50 mmf. 500 V., ceramic	47X20UJ500K	V-4	50C5: audio output	90X50C5
C-5,10,14,16,20	10,000 mmf. 450 V., ceramic disc	47A217	V-5	35W4: rectifier	90X35W4
C-6,7,19	.05 mfd. 200 V., tubular paper	46AU503J			
C-8,9	100 mmf. (part of diode filter network CRL-1)	-----			
C-12	.001 mfd. 600 V., tubular paper	46AZ102J			
C-13A,B & C	20 mfd. 25 V., 90-60 mfd. 150 V.; electrolytic	45B197			
C-15	5600 mmf. 500 V., mica	47X30A562			
C-17	Resonant capacitor	46A150			
<b>RESISTORS</b>			<b>MISCELLANEOUS</b>		
R-1	1 megohm 1/2 watt, carbon	23X20X105M		Cabinet:	
R-2	22,000 ohms 1/2 watt, carbon	23X20X223M		Model 5R30A	116E003
R-3	1200 ohms 1/2 watt, carbon	23X20X122M		Model 5R31A	116E004
R-4	56 ohms 1/2 watt, carbon (used with 12SK7)	23X20X560K		Model 5R32A	116E005
	100 ohms 1/2 watt, carbon (used with 12BA6)	23X20X101K		Model 5R33A	116E006
R-5	2.2 megohms 1/2 watt, carbon	23X20X225M		Model 5R34A	116E007
R-6	47,000 ohms (part of diode filter network CRL-1)			Cabinet back	8C1657
	VOLUME control, 1 megohm; includes OFF-ON switch S-2	25B965		Clip, mtg.; for antenna coil L-1	76A879
R-8	10 megohms 1/2 watt, carbon	23X20X106M		Clip, mtg.; for IF transformers T-1 and T-2	76A385
R-9,13	270,000 ohms 1/2 watt, carbon	23X20X274M		Clip, mtg.; for oscillator coil L-2	76A868
R-10	470,000 ohms 1/2 watt, carbon	23X20X474M		Dial cord (specify length)	38A001
R-11	150 ohms 1/2 watt, carbon	23X20X151K		Dial glass	22C349
R-12	56 ohms 1/2 watt, carbon	23X20X560K		Dial light assembly; does not include dial lamp	86A011
R-14	15 ohms 1/2 watt, carbon	23X20X150M		Diode filter network (includes R-6, C-8 and C-9)	49A016
R-15	22 ohms 1/2 watt, carbon	23X20X220M		Escutcheon, Model 5R30A	7D349
R-16	820 ohms 1 watt, carbon	23X30X821M		Escutcheon, Models 5R31A, 5R32A, 5R33A and 5R34A	7A352
R-17	47 ohms 1/2 watt, carbon	23X20X470K		Grommet, rubber	16A125
				Knob, VOLUME; Model 5R30A	15B477
				Knob, VOLUME; Models 5R31A, 5R32A, 5R33A and 5R34A	15A480
				Knob, TUNING and SW-BC: Model 5R30A	15B478
				Model 5R31A	15B481
				Model 5R32A	15B482
				Model 5R33A	15B483
				Model 5R34A	15B484
			PL-1	Line cord and plug	87A078
			LM-1	Lamp, dial; Mazda #47	39A004
				Lock, line cord; male	76A397-1
				Lock, line cord; female	76A397-2
				Pointer, dial	82A211
				Shaft, tuning	74B511
				Socket, tube; miniature (with center shield)	6B402
				Socket, tube; miniature (without center shield)	6B314
				Socket, tube; octal	6A250
				Spring, dial cord	75A012
			LS-1	Speaker, 5 inch PM (refer to part number stamped on speaker)	85C127 or 85C103
			TS-1	Terminal strip, antenna	88A032
<b>COILS AND TRANSFORMERS</b>					
L-1	Coil, antenna; BC and SW	51B1494			
L-2	Coil, oscillator; SW	51B1493			
L-3	Coil, oscillator; BC	51B1495			
T-1	Transformer, IF; input	50B524			
T-2	Transformer, IF; output	50B525			
T-3	Transformer, audio output	55C187			
<b>SWITCHES</b>					
S-1A,B,C & D	Switch, rotary; SW-BC	60B472			
S-2	Switch, OFF-ON; part of VOLUME control R-7	-----			
<b>TUBE COMPLEMENT (OCTAL)</b>					
V-1	12SA7: converter	90X12SA7			
V-2	12SK7: IF amplifier	90X12SK7			
V-3	12SQ7: detector and audio amplifier	90X12SQ7			
V-4	50L6GT: audio output	90X50L6GT			
V-5	35Z5GT: rectifier	90X35Z5GT			





**MODELS 5R30A, 5R31A, 5R32A, 5R33A and 5R34A**

Property of NIPS RUN 3

VALUES AND TOLERANCES SHOWN ARE NOMINAL AND VARIATIONS MAY BE FOUND. IT IS RECOMMENDED THAT THE VALUE OF ANY REPLACEMENT CORRESPOND TO THE NOMINAL VALUE OF THE PART BEING REPLACED.

- NOTES**
- RESISTANCE INDICATED IN OHMS AND CAPACITANCE IN MMF UNLESS OTHERWISE SPECIFIED.
  - RESISTORS HAVE 1/2 WATT RATING UNLESS OTHERWISE SPECIFIED.
  - INTERMEDIATE FREQUENCY - 455 KC
  - SW-BC SWITCH SHOWN IN BC POSITION (CLOCKWISE)
  - CHASSIS
  - B-(COMMON GROUND)
  - GRID NO. 5 OF THE 12BE6 IS CONNECTED INTERNALLY TO PIN (2).
  - TUBE PIN NUMBERS ENCLOSED IN PARENTHESES ( ) ARE FOR THE MINIATURE TYPE TUBES.
  - C7 IS OMITTED IN SOME SETS USING MINIATURE TUBES.

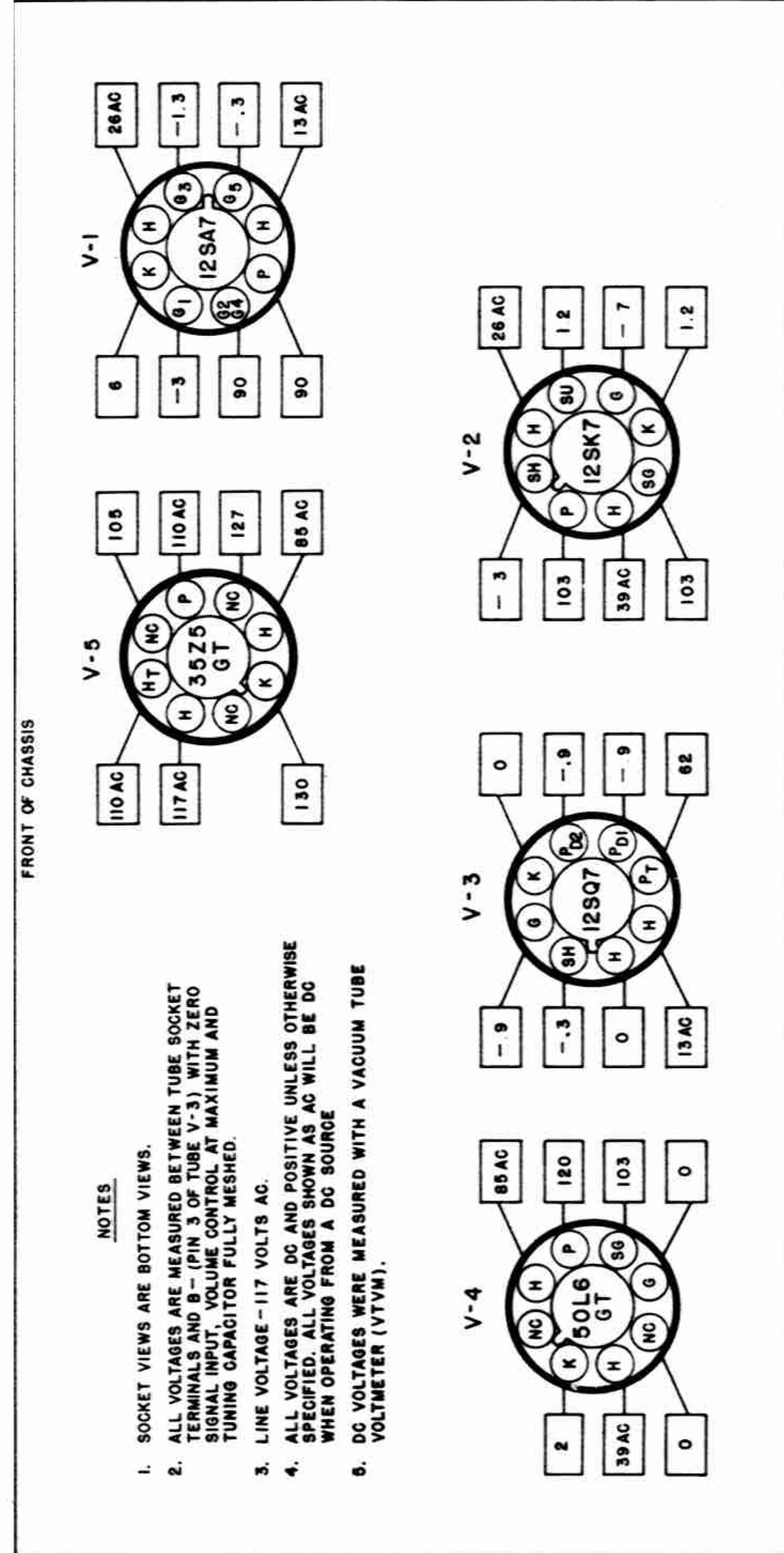


Fig. 10. Tube Socket Voltage Chart for Chassis Using Octal Tubes

92C1566

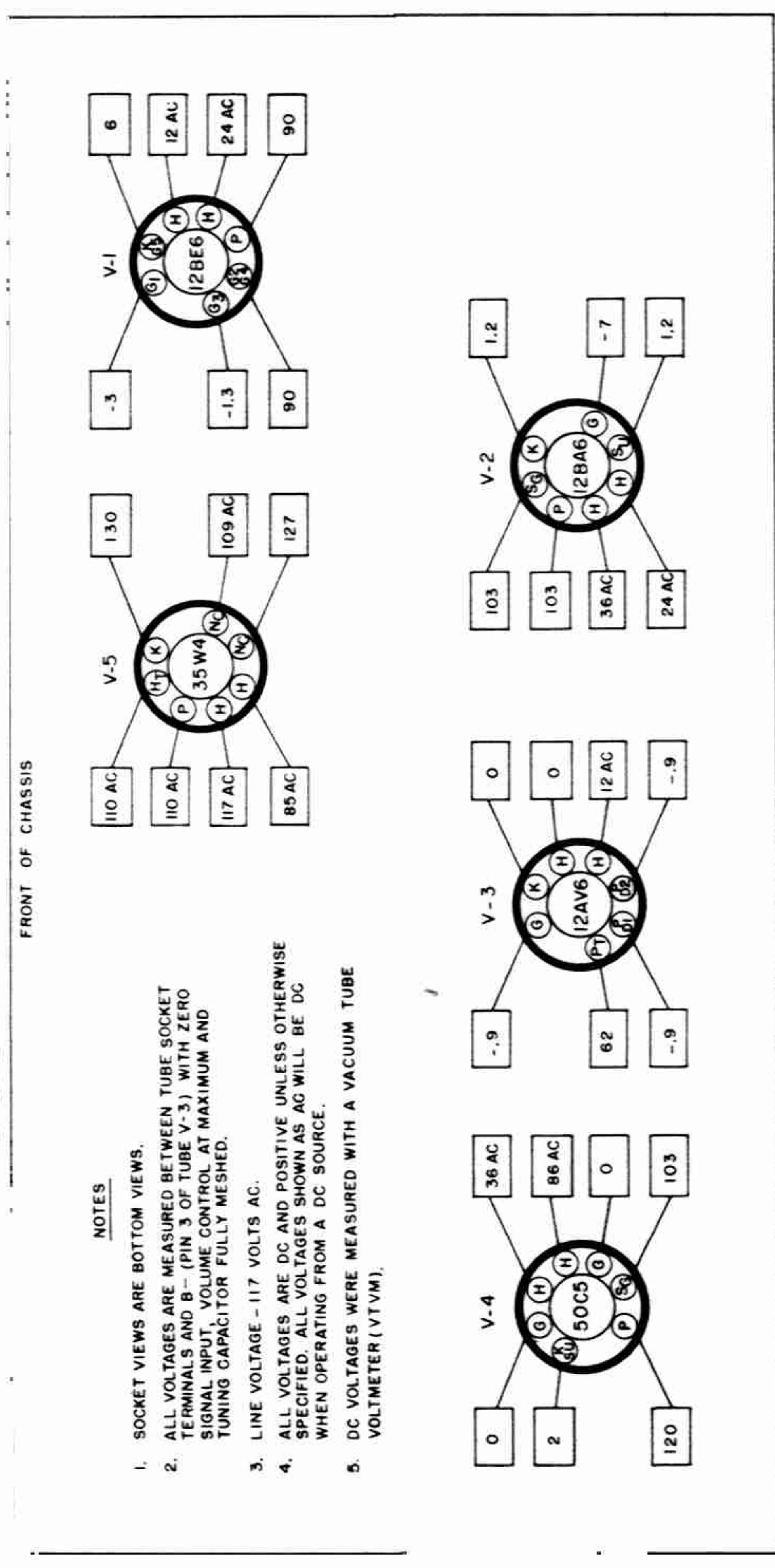


Fig. 11. Tube Socket Voltage Chart for Chassis Using Miniature Tubes

92C1703