NAVSHIPS 91469

INSTRUCTION BOOK

for

RADIO RECEIVING EQUIPMENT
NAVY MODELS
RBB - 5, RBB - 6, RBC - 5, RBC - 6

★

Manufactured by

RADIO CORPORATION OF AMERICA
CAMDEN, N. J.

Michael E. Sullivan

30 July 1951
Temporary Correction T-1
to Instruction Book for
Models RBB-5/6 and RBC-5/6
Radio Receiving Equipment

TABLE 8-3

Page 8-1 Add, after Group Symbols 401-499

Rack Mounting Cabinet, CRV-10350-A, RBB-6, RBC-6, quantity 1 each

TABLE 8-4

Page 8-2 After description Receiver, Radio NT #46296 add -

CABINET: for rack mtg RBB/RBC Radio Receivers; aluminum; Navy gray enamel finish; empty; 17-9/16" lg x 13-31/32" wd x 19" h o/a; front has 8 standard mtg slots, 4 in ea end, slots are 1/4" wd x 1/2" d and are spaced 4", 3", 4" c to c, open ends of slots 19" apart; marked w/ NT #10350-A

Delete complete description Power Supply NT #20130-B (Rack Type)

Change nomenclature Power Supply NT #20130-B (Cabinet type) to Rectifier Power Unit NT #20130-B

After description Rectifier Power Unit NT #20130-B add -

SHELF, MOUNTING: for rack mtg Rectifier Power Unit NT #20130-B (when that unit is used to power RBB-6/RBC-6 Receivers); aluminum, Navy gray enamel finish; 17-1/8" lg x 13-31/32" wd x 19" h o/a; "L" shelf shaped; bottom has 4 cutout slots 7/16" wd x 1-3/16" lg on 10-5/16" x 6-3/16" mtg/c for securing power supply; front has 8 standard mtg slots, 4 in ea end, slots are 1/4" wd x 1/2" d and are spaced 4", 3", 4" c to c, open ends of slots 19" apart; RSW; marked w/ NT #10348-A

RADIO CORPORATION OF AMERICA - RCA VICTOR DIVISION
Camden, New Jersey U.S.A.

CONTRACT NObsr-52028

Page 8-3 After description Receiver, Radio NT #46297-A add -

CABINET: for rack mtg RBB/RBC Radio Receivers; aluminum; Navy gray enamel finish; empty; 17-9/16" lg x 13-31/32" wd x 19" h o/a; front has 8 standard mtg slots, 4 in ea end, slots are 1/4" wd x 1/2" d and are spaced 4", 3", 4" c to c, open ends of slots 19" apart; marked w/ NT #10350-A

Delete complete description Power Supply NT #20130-B (Rack Type)

Change nomenclature Power Supply NT #20130-B (Cabinet Type) to Rectifier Power Unit NT #20130-B

After description Rectifier Power Unit NT #20130-B add -

SHELF, MOUNTING: for rack mtg Rectifier Power Unit NT #20130-B (when that unit is used to power RBB-6/RBC-6 Receivers); aluminum, Navy gray enamel finish; 17-1/8" lg x 13-31/32" wd x 19" h o/a; "L" shelf shaped; bottom has 4 cutout slots 7/16" wd x 1-3/16" lg on 10-5/16" x 6-3/16" mtg/c for securing power supply; front has 8 standard mtg slots, 4 in ea end, slots are 1/4" wd x 1/2" d and are spaced 4", 3", 4" c to c, open ends of slots 19" apart; RSW; marked w/ NT #10348-A

1 September 1951
Temporary Correction T-2
to Instruction Book for
Models RBB-5/6 and RBC-5/6
Radio Receiving Equipment

TABLE 1-5

Page 1-7 Change o/a dimensions Equipment Spares, RBB or RBC to 6-1/4" h x 19-1/4" w x 13-3/8" d; change volume to 0.93 cu. ft., and add weight 32 lb.

TABLE 1-6

Change o/a dimensions Equipment Spares, RBB or RBC to 8-1/2" h x 23" w x 16-3/4" d; change volume to 2.3 cu. ft. and add weight 52 lb.

TABLE 8-1

Page 8-1 Change o/a dimensions Equipment Spares, RBB or RBC to 6-1/4" h x 19-1/4" w x 13-3/8" d; change volume to 0.93 cu. ft., and add weight 32 lb.

TABLE 8-2

Add weight, shipping box, RBB or RBC, 52 lb.

Page 8-32 M-302 - Desc. delete JAN type #MR25Y120DCVV.

Page 8-40 In description CASE: spare parts box; change dimensions to 19-1/4" lg x 13-3/8" wd x 6-1/4" d o/a and change RCA part/dwg to T-618947-508.

RADIO CORPORATION OF AMERICA - RCA VICTOR DIVISION
Camden, New Jersey, U.S.A.

CONTRACT NObsr-52028

NAVSHIPS 91469

INSTRUCTION BOOK

for

RADIO RECEIVING EQUIPMENT

NAVY MODELS
RBB-5, RBB-6,
RBC-5 and RBC-6

RCA VICTOR DIVISION
RADIO CORPORATION OF AMERICA
Camden, New Jersey, U. S. A.

IB-39558

BUREAU OF SHIPS NAVY DEPARTMENT

Contract: NObsr-52028

Approved by BuShips: 2 July 1951

Change 1: 16 July 1952

LIST OF EFFECTIVE PAGES

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8–35 to 8–37	Original
8–38 to 8–40	Change 1
8–41	Original
8–42 to 8–45	Change 1

DEPARTMENT OF THE NAVY
BUREAU OF SHIPS
WASHINGTON 25, D. C.

IN REPLY REFER TO
Code 993-100
16 July 1952

From: Chief, Bureau of Ships
To: All Holders of NAVSHIPS 91265(A)

Subj: Change 1 to the Instruction Book for NAVSHIPS 91469

1. This change is in effect upon receipt, superseding Temporary Corrections T-3 and T-4. Insert revised pages in their numerical order and record the action on the "Record of Corrections Made" page of the instruction book. Destroy all superseded pages of Temporary Corrections T-3 and T-4 when book has been checked against List of Effective Pages.

2. When superseded by a later edition, this publication shall be destroyed.

3. Extracts from this publication may be made to facilitate the preparation of other Department of Defense Publications.

4. All Navy requests for NAVSHIPS Electronics publications should be directed to the nearest District Publications and Printing Office. When changes or revised books are distributed, notice will be included in the Bureau of Ships Journal and in the Index of Bureau of Ships General and Electronics Publications, NAVSHIPS 250-020.

H. N. WALLIN
Chief of Bureau

DEPARTMENT OF THE NAVY
BUREAU OF SHIPS
WASHINGTON 25, D. C.

IN REPLY REFER TO
Code 993-100
2 July 1951

From: Chief, Bureau of Ships
To: All Activities Concerned with the Installation, Operation and Maintenance of the Subject Equipment

Subj: Instruction Book for Radio Receiving Equipment, Navy Models RBB-5, RBC-5, RBB-6 and RBC-6, NAVSHIPS 91469

1. This publication is the instruction book for the subject equipment and is in effect upon receipt.

2. When superseded by a later edition, this publication shall be destroyed.

3. Extracts from this publication may be made to facilitate the preparation of other Department of Defense Publications.

4. All requests for NAVSHIPS Electronics Publications should be directed to the nearest District Publications and Printing Office. When changes or revised books are distributed, notice will be included in the applicable maintenance bulletin and the BUSHIPS ELECTRON.

H. N. WALLIN
Chief of Bureau

RECORD OF CORRECTIONS MADE

CHANGE NO.	DATE	SIGNATURE OF OFFICER MAKING CORRECTION

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GUARANTEE

The equipment, including all parts and spare parts, except vacuum tubes, batteries, rubber and material normally consumed in operation, is guaranteed for a period of one year from the date of delivery of the equipment to and acceptance by the Government with the understanding that all such items found to be defective as to material, workmanship or manufacture will be repaired or replaced, f.o.b. any point within the continental limits of the United States designated by the Government, without delay and at no expense to the Government; provided that such guarantee will not obligate the Contractor to make repair or replacement of any such defective items unless the defect appears within the aforementioned period and the Contractor is notified thereof in writing within a reasonable time and the defect is not the result of normal expected shelf life deterioration.

To the extent the equipment, including all parts and spare parts, as defined above, is of the Contractor's design or is of a design selected by the Contractor, it is also guaranteed, subject to the foregoing conditions, against defects in design with the understanding that if ten percent (10%) or more of any such said item, but not less than two of any such item, of the total quantity comprising such item furnished under the contract, are found to be defective as to design, such item will be conclusively presumed to be of defective design and subject to one hundred percent (100%) correction or replacement by a suitably redesigned item.

All such defective items will be subject to ultimate return to the Contractor. In view of the fact that normal activities of the Naval Service may result in the use of equipment in such remote portions of the world or under such conditions as to preclude the return of the defective items for repair or replacement without jeopardizing the integrity of Naval communications, the exigencies of the Service, therefore, may necessitate expeditious repair of such items in order to prevent extended interruption of communications. In such cases the return of the defective items for examination by the Contractor prior to repair or replacement will not be mandatory. The report of a responsible authority, including details of the conditions surrounding the failure, will be acceptable as a basis for effecting expeditious adjustment under the provisions of this contractual guarantee.

The above one-year period will not include any portion of time the equipment fails to perform satisfactorily due to any such defects, and any items repaired or replaced by the Contractor will be guaranteed anew under this provision.

INSTALLATION RECORD

Contract Number NObsr-52028 Date of Contract, 25 September 1950

Serial Number of equipment .....

Date of acceptance by the Navy .....

Date of delivery to contract destination .....

Date of completion of installation .....

Date placed in service .....

Blank spaces on this page shall be filled in at time of installation. Operating personnel shall also mark the "date placed in service" on the date of acceptance plate located below the model nameplate on the equipment, using suitable methods and care to avoid damaging the equipment.

REPORT OF FAILURE

Report of failure of any part of this equipment, during its entire service life, shall be made to the Bureau of Ships in accordance with current regulations using form NAVSHIPS NBS 383 (revised). The report shall cover all details of the failure and give the date of installation of the equipment. For procedure in reporting failures see Chapter 67 of the Bureau of Ships Manual or superseding instructions.

ORDERING PARTS

All requests or requisitions for replacement material should include the following data:

1. Federal stock number or, when ordering from a Marine Corps or Signal Corps supply depot, the Signal Corps stock number.
2. Name and short description of part.

If the appropriate stock number is not available the following shall be specified:

1. Equipment model or type designation, circuit symbol, and item number.
2. Name of part and complete description.
3. Manufacturer's designation.
4. Contractor's drawing and part number.
5. JAN or Navy type number.

SAFETY NOTICE

The attention of officers and operating personnel is directed to Chapter 67 of the Bureau of Ships Manual or superseding instructions on the subject of radio-safety precautions to be observed.

This equipment employs voltages which are dangerous and may be fatal if contacted by operating personnel. Extreme caution should be exercised when working with the equipment.

While every practicable safety precaution has been incorporated in this equipment, the following rules must be strictly observed:

KEEP AWAY FROM LIVE CIRCUITS:

Operating personnel must at all time observe all safety regulations. Do not change tubes or make adjustments inside equipment with high voltage supply on. Under certain conditions dangerous potentials may exist in circuits with power controls in the off position due to charges retained by capacitors. To avoid casualties always remove power and discharge and ground circuits prior to touching them.

DON'T SERVICE OR ADJUST ALONE:

Under no circumstances should any person reach within or enter the enclosure for the purpose of servicing or adjusting the equipment without the immediate presence or assistance of another person capable of rendering aid.

DON'T TAMPER WITH INTERLOCKS:

Do not depend upon door switches or interlocks for protection but always shut down motor generators or other power equipment. Under no circumstances should any access gate, door, or safety interlock switch be removed, short-circuited, or tampered with in any way, by other than authorized maintenance personnel, nor should reliance be placed upon the interlock switches for removing voltages from the equipment.

RESUSCITATION

AN APPROVED POSTER ILLUSTRATING THE RULES FOR RESUSCITATION BY THE PRONE PRESSURE METHOD SHALL BE PROMINENTLY DISPLAYED IN EACH RADIO, RADAR, OR SONAR ENCLOSURE. POSTERS MAY BE OBTAINED UPON REQUEST TO THE BUREAU OF MEDICINE AND SURGERY.

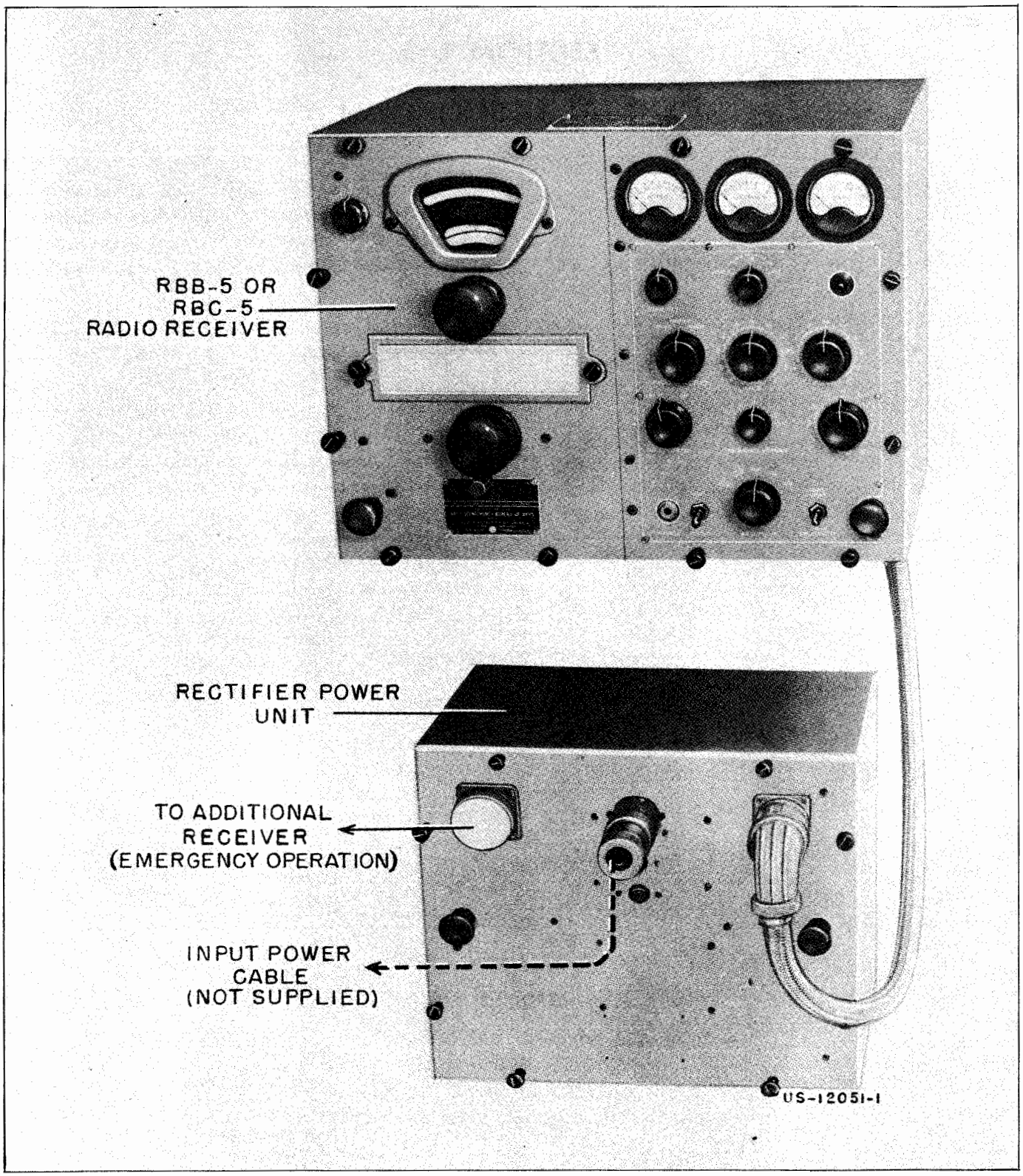


Figure 1-1. Model RBB-5 or RBC-5 Radio Receiver and Rectifier Power Unit, CRV-46147-D, CRV-46148-D, and CRV-20130-B, respectively

SECTION 1

GENERAL DESCRIPTION

1. GENERAL.

The Navy Models RBB-5/RBC-5 and RBB-6/RBC-6 Radio Receiving Equipments are designed for voice, mcw, and cw reception in the medium-frequency and high-frequency bands. Utilizing a four-position switch to cover the frequency range, the RBB receivers tune from 0.5 to 4 megacycles while the RBC units receive signals in the 4 to 27 megacycle band. The RBB and RBC equipments are identical in external appearance and each is supplied complete with a Navy type CRV-20130-B Rectifier Power Unit and interconnecting cable as shown in Figure 1-1. A power source of 115-125 volts, 55-65 cycles, single phase, ac is required for the Rectifier Power Unit. Although not furnished on this contract, Navy Model CV-57 URR Frequency Shift Converter or RBU/RBV Panoramic Adapter Units may be coupled to the RBB/RBC equipments through a jack mounted externally on each receiver.

TABLE 1-1. RECEIVER TUNING RANGES

BAND	RBB	RBC
1	0.50-0.84 mc	4.00- 6.45 mc
2	0.84-1.41 mc	6.45-10.30 mc
3	1.41-2.37 mc	10.30-16.50 mc
4	2.37-4.00 mc	16.50-27.00 mc

The RBB/RBC unit is an 18-tube superheterodyne-type receiver which includes cw, automatic-gain-control (agc), silencer, and noise limiter circuits. Ranges of the four tuning bands are listed in Table 1-1. When operated together, the RBB and RBC units provide unbroken coverage from 0.5 to 27 megacycles. Each receiver is capable of furnishing a maximum undistorted power output of not less than 15 milliwatts to each of one to twenty pairs of 600-ohm (impedance) telephone receivers connected in parallel or equivalent load.

In addition to the electrical differences between the RBB and RBC units, occasioned by the two tuning ranges, the model numbers are used to designate mounting differences. Thus, the RBB-5 and RBC-5 units are intended for table top or shelf mounting and include the necessary shock mounts. The RBB-6 and RBC-6 receivers are supplied with mounting ears for rack mounting. Figure 1-2 illustrates the RBB-6/RBC-6 unit. Shock mounts are not furnished for the Rectifier Power Unit which is also supplied for the two mounting conditions. Tables 1-2 and 1-3 list the equipment and accessories supplied.

TABLE 1-2. LIST OF UNITS

QUANTITY PER EQUIPMENT		NAME OF UNIT	NAVY TYPE DESIGNATION
RBB	RBC		
1		RBB Radio Receiver: RBB-5 or RBB-6	CRV-46147-D CRV-46296-A
	1	RBC Radio Receiver: RBC-5 or RBC-6	CRV-46148-D CRV-46297-A
1	1	Rectifier Power Unit*	CRV-20130-B
1	1	Equipment Spares	

* Some units supplied with CRV-10348-A rack-mounting assembly in place.

TABLE 1-3. EQUIPMENT ACCESSORIES

QUANTITY PER EQUIPMENT					ITEM
RBB-5	RBC-5	RBB-6	RBC-6	RECT. PWR. UNIT	
1	1	1	1	—	Adapter, antenna—Navy type 49152
1	1	1	1	—	Adapter, phone output plug—Navy type 49509
1	1	1	1	—	Adapter, right angle—Navy type 49192
1	1	1	1	—	Plug, concentric line—Navy type 49121-A
1	1	1	1	—	Plug, phone output—Navy type 49160
1	1	1	1	—	Plug assembly—Navy type 49195
1	1	—	—	—	Lot of miscellaneous mounting hardware
—	—	—	—	1	Plug, power input—Navy type 49125
—	—	—	—	2	Cable, Interconnection—Navy type CRV-49162
—	—	—	—	1	Lot of miscellaneous hardware

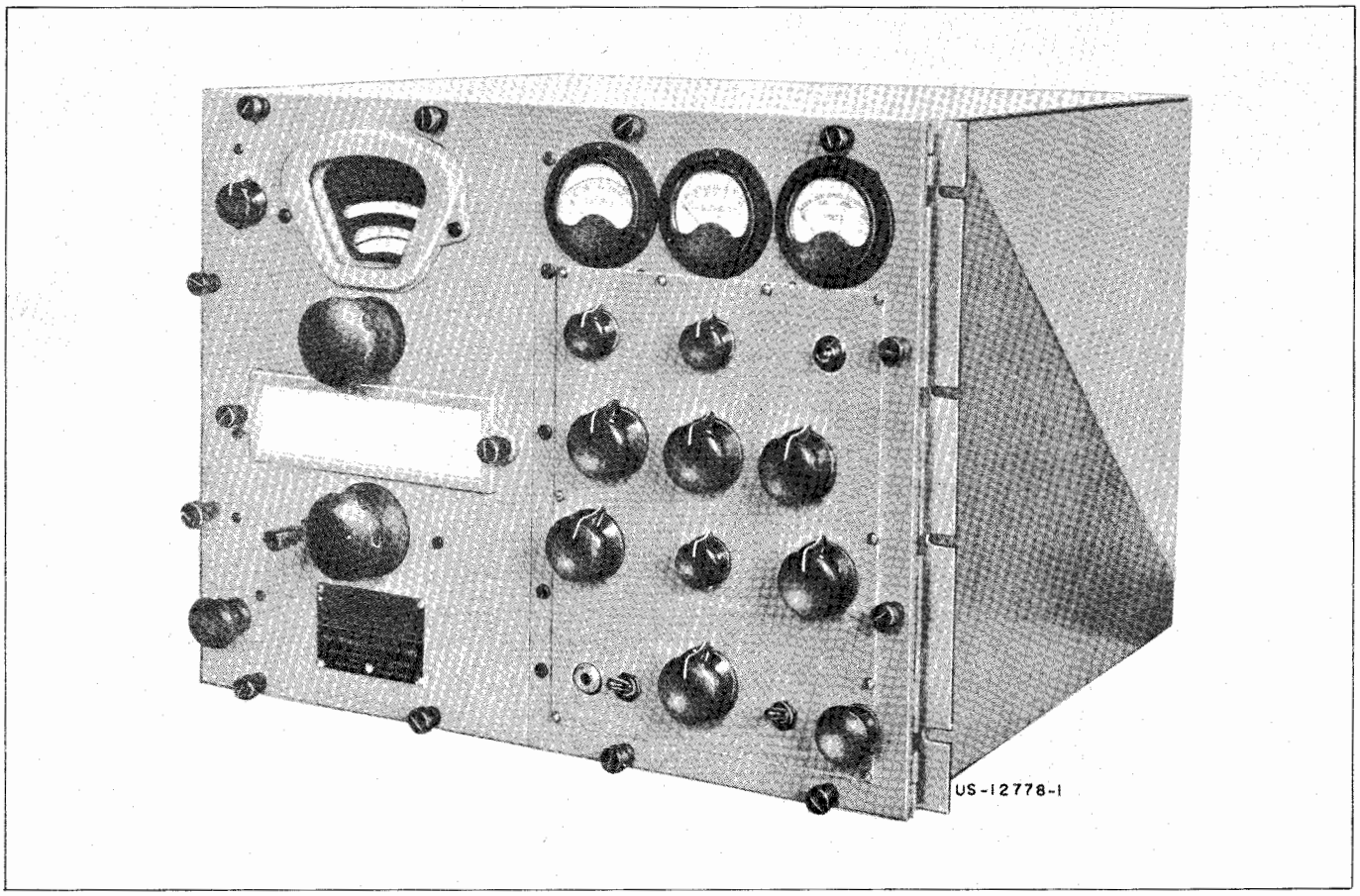


Figure 1-2. Model RBB-6, CRV-46296-A, or RBC-6, CRV-46297-A, Receiver for Rack Mounting

2. DESCRIPTION.

The RBB/RBC chassis, shown in Figure 1-3, is divided into two sub-assemblies which are bolted together and housed in a single cabinet. One sub-assembly, the preselector section, contains the r-f input circuits. The other sub-assembly houses the intermediate frequency/audio frequency (if/af) section which includes a cw oscillator, agc, limiter, silencer, and a cathode-follower stage for coupling to a frequency shift converter or panoramic adapter (not furnished).

The RBB/RBC preselector sections are similar in construction, employing the same front panel arrangement except for frequency calibration. The two preselector units, however, because of their frequency coverages, differ as to tube arrangement, r-f coil boxes, coil box connections, and antenna connections.

Component parts of the RBB preselector section have been assigned symbol designations in the 100-199 group and the RBC preselector symbol designations in the 200-299 group. Two symbol groups, 300-399 and 500-599, have been assigned to the if/af section which is identical for both equipments.

a. PRESELECTOR SECTION.—The preselector section incorporates six tubes, including an Amperite regulator and r-f limiter tube. Figures 1-4 and 1-5 are the top and bottom views of the RBB preselector. The RBC preselector, being virtually identical except on close inspection of wiring, is not illustrated at this point for simplicity and clarity.

Two r-f stages, a first detector, and a heterodyne oscillator are utilized in the preselector section. An Amperite regulator tube controls the oscillator filament voltage, while a type 6-8B, two-element gas-filled tube, protects the equipment by providing a path to ground for excessively-high incoming r-f currents. Four removable r-f coil "box" units, indicated on Figure 1-5, and removable cover plates facilitate servicing.

The tuning knob operates the five-gang variable capacitor through a split-gear reducing mechanism, and drives an indicating dial which is calibrated directly in frequency as well as in an arbitrary 0-1000 division scale. The band switch drive, incorporated with the tuning mechanism, drives the band switch through a reducing gear.

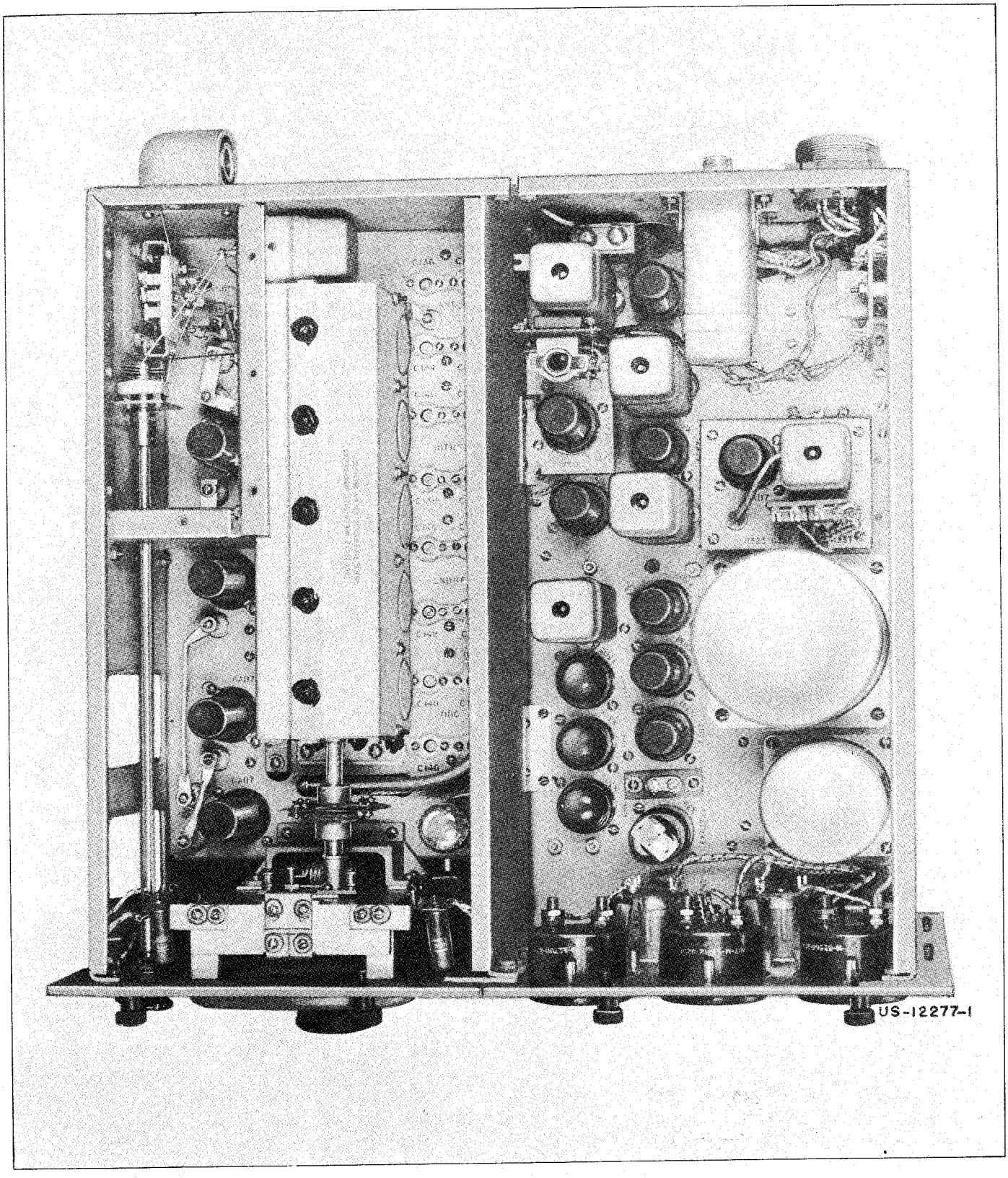


Figure 1-3. RBB/RBC Chassis, Top View

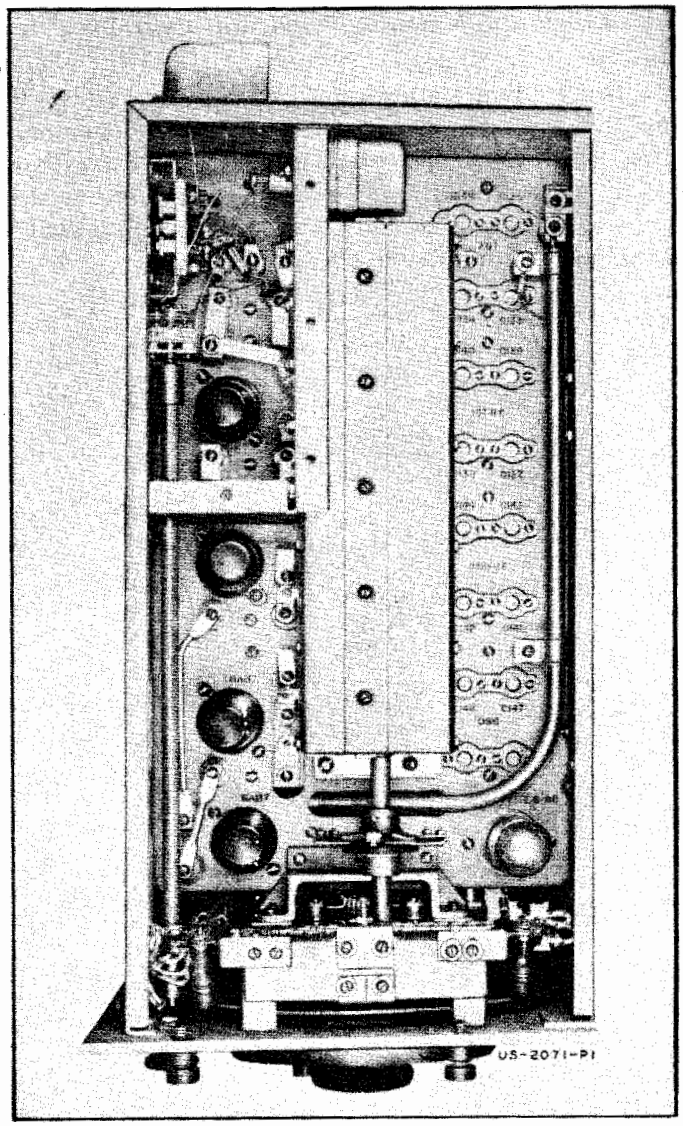


Figure 1-4. RBB (or RBC) Preselector Section Chassis Top View

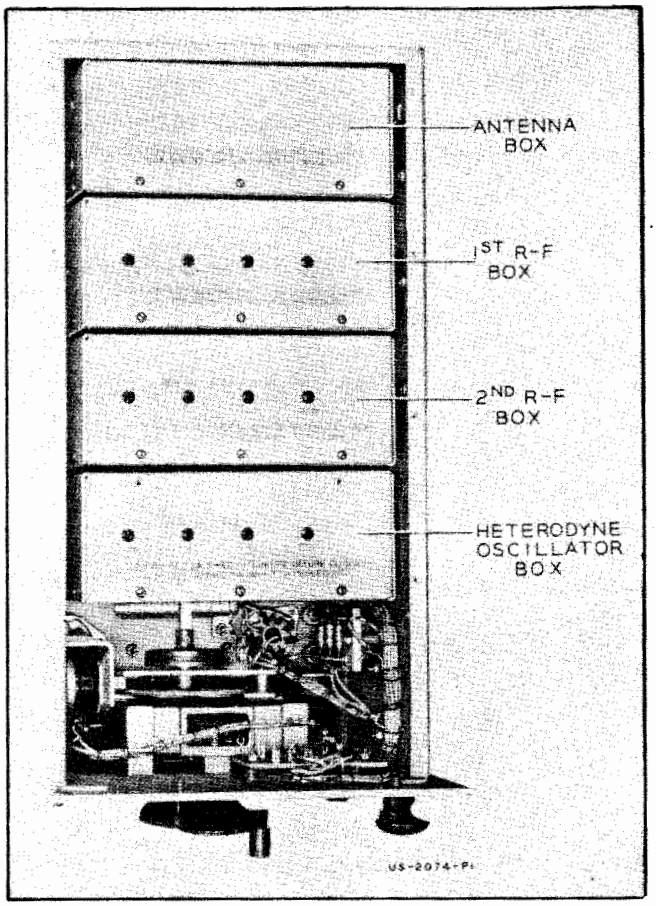


Figure 1-5. RBB (or RBC) Preselector Section Chassis, Bottom View

The tuning capacitor, with its enclosing shield, is mounted on the upper surface of the chassis. Openings with snap covers are provided on the sides of the shield for inspection.

Indicated on Figure 1-5, the coil unit mounted at the rear of the preselector unit contains inductances, trimmers, band switches, and other circuit elements associated with the antenna and link-tuned circuits.

A shielded compartment on the preselector, shown on Figure 1-4, encloses the input circuits and first r-f tube. A small terminal board located in this compartment provides a means for changing the input circuit connections as required for antenna input, line input, or common operation of more than one receiver on an antenna or line. This terminal board is accessible through the left side of the preselector unit by removal of the small cover plate.

The r-f output of the preselector section is connected to the if/af amplifier section by means of a terminal located on the top of the preselector chassis. Power connections to the r-f unit are made through a cable permanently connected to the preselector unit and terminating at a terminal board on the bottom of the if/af chassis.

b. IF/AF SECTION.—The if/af units are identical for the RBB and RBC equipments except for the audio filter unit. Figures 1-6 and 1-7 are the top and bottom chassis views of this section. The if/af unit contains a three-stage variable selectivity i-f amplifier, second detector, noise limiter, audio band-pass filter, cw oscillator, automatic gain control, silencer circuit, and an audio amplifier.

A cathode follower stage coupled to the output of the second i-f tube provides a means for connecting a frequency shift converter or a panoramic adaptor to the RBB/RBC receivers. This stage, shown on Figure 1-6, contains a filament switch for controlling its output.

Outstanding feature of this section is the use of multiple coils in the i-f stages. A panel-operated, three-position ganged switch enables the i-f response to be varied from broad to sharp by connecting the proper i-f transformer coils. The sharp position facilitates cw reception under adverse conditions.

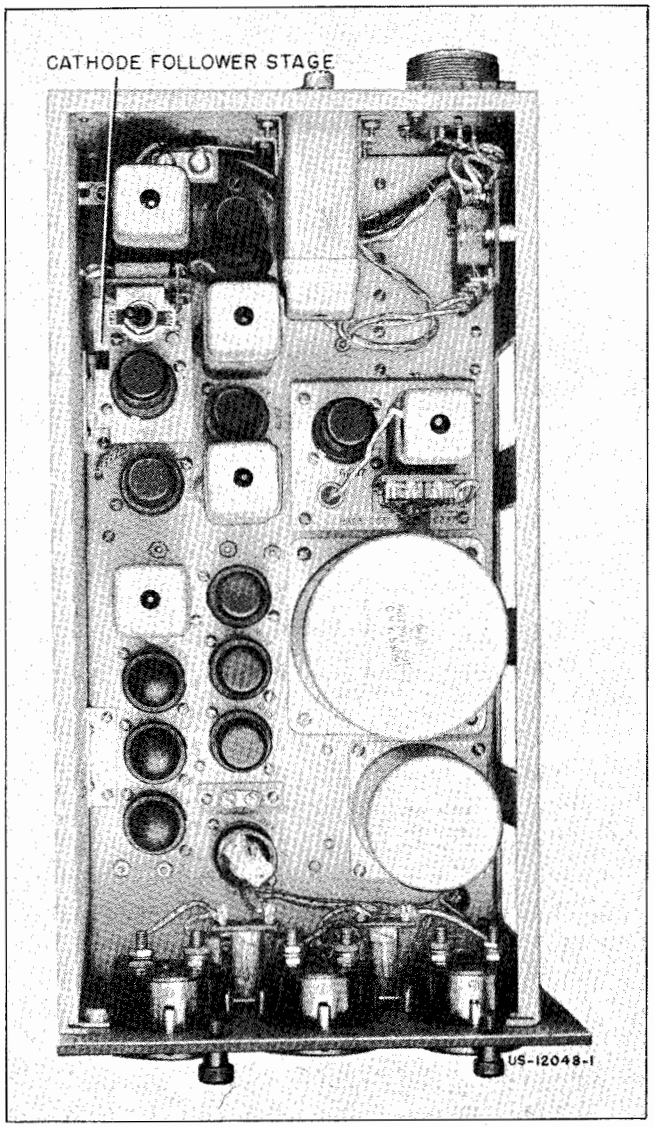


Figure 1-6. RBB/RBC IF/AF Section Chassis, Top View

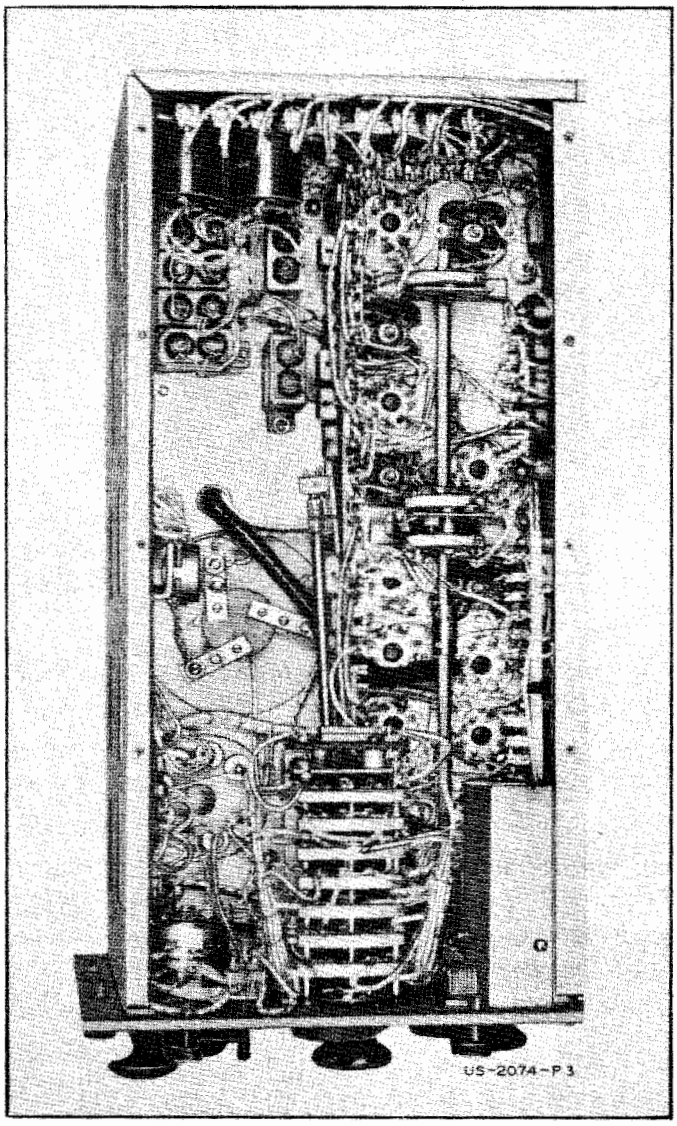


Figure 1-7. RBB/RBC IF/AF Section Chassis, Bottom View

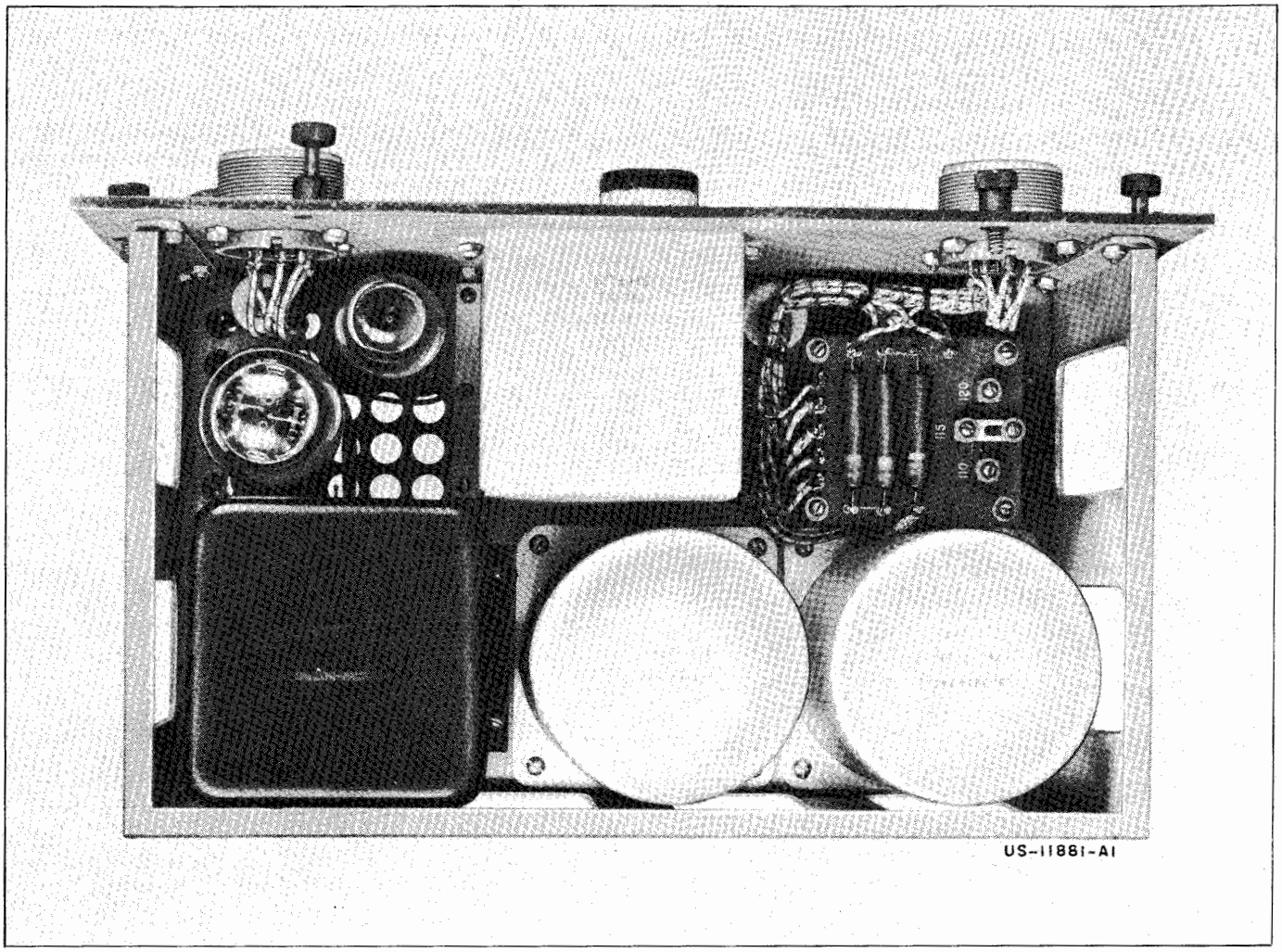


Figure 1-8. Rectifier Power Unit Chassis, Top View

c. RECTIFIER POWER UNIT.—The Rectifier Power Supply utilizes a type 5U4G tube in a full-wave rectifying circuit for supplying the RBB/RBC plate and screen voltages. Shown in Figures 1-1 and 1-8, the unit includes a type OC3 tube for regulation of the heterodyne oscillator plate and screen voltage. An input source of 110-120 volts, 55-65 cycles, single phase ac is required for the power unit. One hundred watts input is required when either an RBB or RBC receiver is powered.

Although one power unit is intended to be used with each RBB or RBC receiver, it is possible in emergencies to operate two receivers from one power supply. For this reason two cables are furnished with each power unit. Complete current and voltage variation data for one and two-receiver operation is supplied under paragraph 4, "Reference Data," in this section.

3. MISCELLANEOUS.

Two crystal control adaptors, CRV-35047 and CRV-35048, not furnished, are designed to provide two crystal-controlled operating frequencies in RBB and RBC receivers, respectively. See NAVSHIPS 900,530 for installation instructions.

TABLE 1-4. CONTRACT REFERENCE DATA

NAME OF EQUIPMENT	Radio Receiving Equipments—Navy Models RBB-5, RBC-5, RBB-6 and RBC-6
CONTRACT	NObsr-52028, dated 25 Sept 1950
CONTRACTOR	Radio Corporation of America, Camden, New Jersey
COGNIZANT NAVAL INSPECTOR	Inspector of Naval Material, Camden, New Jersey

TABLE 1-5. EQUIPMENT SUPPLIED (UNCRATED)

QUAN. PER EQUIP.		NAME OF UNIT	NAVY TYPE DESIGNATION	OVERALL DIMENSIONS			VOLUME (CU. FT.)	WEIGHT (LBS.)
RBB	RBC			HEIGHT (IN.)	WIDTH (IN.)	DEPTH (IN.)		
1		RBB Radio Receiver: RBB-5 or RBB-6	 CRV-46147-D CRV-46296-A	 14 11/16 14 3/16	 18 1/8 19	 20 7/8 20 7/8	 3.3 3.3	 85 88
	1	RBC Radio Receiver: RBC-5 or RBC-6	 CRV-46148-D CRV-46297-A	 14 11/16 14 3/16	 18 1/8 19	 20 7/8 20 7/8	 3.3 3.3	 85 88
1	1	Rectifier Power Unit: Without mounting assy. or With CRV-10348-A mounting assy.	 CRV-20130-B CRV-20130-B	 13 7/16 14	 15 19	 9 1/2 9 13/16	 1.1 1.5	 55 59
1	1	Equipment Spares: RBB RBC	 — —	 6 6	 18 18	 12 12	 0.75 0.75	 47 52

TABLE 1-6. SHIPPING DATA (CRATED)

SHIPPING BOX NO.		CONTENTS		OVERALL DIMENSIONS			VOLUME (CU. FT.)	WEIGHT (LBS.)
RBB	RBC	NAME OF UNIT	NAVY TYPE DESIGNATION	HEIGHT (IN.)	WIDTH (IN.)	DEPTH (IN.)		
1	1	RBB Radio Receiver: RBB-5 or RBB-6	 CRV-46147-D CRV-46296-A	 29 1/2 31 3/4	 23 3/4 22 3/4	 32 29 1/2	 13 12.7	 185 175
1	1	RBC Radio Receiver: RBC-5 or RBC-6	 CRV-46148-D CRV-46297-A	 29 1/2 31 3/4	 23 3/4 22 3/4	 32 29 1/2	 13 12.7	 185 175
1	1	Rectifier Power Unit: Without mounting assy. or With CRV-10348-A mounting assy.	 CRV-20130-B CRV-20130-B	 25 1/2 29	 23 1/2 27 1/2	 21 1/2 22 1/2	 7.2 10.4	 122 134
1	1	Equipment Spares: RBB RBC	 — —	 8 1/2 8 1/2	 23 23	 16 3/4 16 3/4	 2 2	 72 73

TABLE 1-7. TECHNICAL SUMMARY RBB/RBC RADIO RECEIVING EQUIPMENTS

Frequency Range .....RBB, 0.5 to 4 megacycles
RBC, 4 to 27 megacycles

Number of Tuning Bands ...Four

Range of Tuning Bands ....

	RBB	*RBC*
(1)	0.50-0.84 mc	4.00- 6.45 mc
(2)	0.84-1.41 mc	6.45-10.30 mc
(3)	1.41-2.37 mc	10.30-16.50 mc
(4)	2.37-4.00 mc	16.50-27.00 mc

Type of Circuit .....superheterodyne

Intermediate Frequency .....400 kilocycles

Receiver Output .....15 milliwatts, maximum—into 1-20 pairs of paralleled headphones

Impedances .....Input:
Transmission line, 70 ohms, RBB or RBC
Antenna—RBB, 300 ohms at low-frequency end of Band 1; 1,500 ohms at high-frequency end of Band 4
Antenna—RBC, 300 ohms
Output: 600 ohms

Type of Reception A1, A2, A3

TABLE 1-8. RECTIFIER POWER UNIT CHARACTERISTICS

NAVY TYPE CRV-20130-B

CHARACTERISTICS	NORMAL LOAD RBB OR RBC	EMERGENCY LOAD RBB AND RBC
Input Voltage	110-120 volts, 55-65 cycles, single phase, ac	
Input Power	100 watts	160 watts
Power Factor	96%	97%
Output:		
6.3 volts, ac	5.4 amps	10.4 amps
17 volts, ac	0.6 amps	1.2 amps
105 volts, dc	5 ma, regulated	10 ma, regulated
200 volts, dc	78 ma	133 ma

TABLE 1-9. BASIC SIMILARITIES IN MODEL RBB/RBC SERIES EQUIPMENT

MODEL	TYPE RECTIFIER POWER UNIT	DIFFERENCES	REMARKS
RBB/RBC	CRV-20130	C301 above chassis	
RBB-1/RBC-1	CRV-20130	C301 above chassis	Serial Nos. 1-1000.
RBB-1/RBC-1	CRV-20130	C301 below chassis	Serial Nos. 1001 and up.
RBB-2/RBC-2	CRV-20130		Same as RBB-1/RBC-1 bearing serial Nos. 1001 and up.
RBB-3/RBC-3	CRV-20130-B	Minor electrical	For shelf mounting.
RBB-4/RBC-4	CRV-20130-B	Minor electrical	For rack mounting.
RBB-5/RBC-5	CRV-20130-B	Type CLP-10335 kit incorporated ·	For shelf mounting. Type CLP-10335 kit provides for coupling to CV-57URR Frequency Shift Converter or RBU/RBV Panoramic Adapter Unit.
RBB-6/RBC-6	CRV-20130-B	Type CLP-10335 kit incorporated	For rack mounting. Type CLP-10335 kit provides for coupling to CV-57URR Frequency Shift Converter or RBU/RBV Panoramic Adapter Unit.
RBB-2a/RBC-3a	CRV-20130-A, -B "Modified"		Units and power supply modified for operation from 110 volts, 400 cycles instead of from 110 volts, 60 cycles.

NOTE: Rectifier Power Units CRV-20130-A and -B are interchangeable, differences being minor electrical.

TABLE 1-10. ELECTRON TUBE COMPLEMENT

UNIT	NUMBER OF TUBES OF TYPE INDICATED								TOTAL NO. OF TUBES
	5U4-G	6AB7	6H6	6K6-GT	6SK7	(AMPERITE) 6-8B	991	OC3/ VR105	
RBB or RBC Receiver		5	3	1	7	1	1		18
Rectifier Power Unit	1							1	2
Total Number of Each Type	1	5	3	1	7	1	1	1	20

SECTION 2

THEORY OF OPERATION

1. GENERAL THEORY.

The RBB/RBC receiver is an 18-tube superheterodyne designed for reception in the medium-frequency and high-frequency bands. The RBB and RBC models, respectively, tune from 0.5 to 4 megacycles and 4 to 27 megacycles. Three basic types of transmission are received in the RBB/RBC units—voice, mcw, and cw. Refinements in these types of operation provide for various combinations of agc, silencer action, noise limiting, and output level or "gain," as selected by panel controls. In addition, the selectivity of the i-f stages may be varied, and the audio output response switched from broad to sharp. A separate circuit enables a frequency shift converter or a panoramic adapter to be coupled to the receiver.

Functionally and physically the RBB/RBC chassis is divided into two sections: the preselector section, and the if/af section. R-f circuits up to and including the first detector are in the preselector section; remainder of the circuits are in the if/af section. One terminal board and a shielded r-f lead provide for all chassis interconnections.

In the following discussion component parts of the Model RBB preselector have been assigned symbol designations in the 100-199 group. Model RBC preselector symbols fall in the 200-299 group. When discussing the preselector sections, therefore, where corresponding items are used in both sections, the symbol group 100-199 will indicate an item from the RBB preselector, and the 200-299 symbols in parentheses will designate an item from the RBC preselector. Since the if/af section is the same in both equipments, symbols in the group 300-399 and 500-599 have been assigned to that section. The audio filter is the sole point of difference in the RBB/RBC if/af section.

For complete treatment of the various circuit arrangements resulting from panel switching, it is necessary to include five overall functional block diagrams, Figures 2-1 to 2-5. This condition is chiefly the result of the five variations of speech, mcw, and cw reception, as selected by the panel RECEPTION transfer switch. Hence, the block diagrams are identified by designating them in accordance with the positions of the RECEPTION switch. Since this switch and most circuits are located in the if/af section, full circuit discussion will be made under the heading, "3. IF/AF Circuits," in this section.

Unless specifically noted otherwise, all material in this section will apply to both RBB and RBC units.

2. PRESELECTOR CIRCUITS.

Two r-f stages, a heterodyne oscillator, and the first detector comprise the preselector section. A six-gang, four-position switch provides choice of coil connections for full band coverage. Tuning is accomplished with a five-section shielded variable capacitor. Figures 7-64 and 7-65 are the preselector schematic diagrams for the RBB and RBC, respectively. As shown at the extreme right on the diagrams, operating voltage enters this section at terminal board E301.

a. R-F INPUT CIRCUITS.—Jack J101 (J201), the r-f input connection, is connected to terminal board E105 (E209) carrying link connectors for adapting the input circuit to various operating conditions. The link arrangement provides for the following types of operation from either an antenna or a transmission line:

Single receiver (RBB or RBC)

Single receiver with one or more companion receivers (RBB or RBC)

Multiple receivers (RBB or RBC)

Detailed procedure for setting the links is shown on Figures 3-11 and 3-12 in Section 3.

The RBB receiver connected for transmission line operation employs capacitor C107 to shunt the unused antenna input system in order to maintain alignment of the circuit. For common operation of more than one RBB equipment on the same antenna, decoupling resistor R101 is inserted in series with the input to each equipment. For operation of the RBB equipment in common with other low-frequency receivers from a transmission line input, decoupling capacitor C150 is employed. For common operation

of the RBC and RBB equipments from a single antenna, decoupling capacitor C217 is employed in series with the RBC input circuit.

Setting the links for the operating condition serves to connect the proper set of coupling coils for antenna or transmission line input. These coupling coils are part of transformers T101 to T104 (T201 to T204) and are the two vertical rows of coils at the extreme left on the preselector schematic diagram, Figures 7-64 or 7-65.

For transmission line input, the coupling system for the RBB/RBC equipments consists of separate coils for each band, coupled to the low-potential side of the respective tuned circuit. This method of coupling acts to minimize capacitance coupling. Proper coils for transmission line input are designed to match the receiver input to an average of 70 ohms resistance over each frequency band. The coil for a particular band is selected by a section of the band switch, S101 (S201).

For antenna input, the RBB coupling coils are designed to resonate in conjunction with the antenna at a frequency below the low limit of the particular band, and to match the receiver input to impedances varying from approximately 300 ohms resistance at the high-frequency end of the equipment range to 1,500 ohms reactance at the low-frequency end. The RBC antenna input coupling system is similar to the line input systems, except that the coupling coils are designed to match the receiver input to an average of 300 ohms resistance at the high-frequency end.

The input circuit is coupled to the first r-f tube through two tuned circuits for each band. These two circuits consist of coils "A" and "B" and the associated trimmer capacitors of transformers T101 to T104 (T201 to T204). An additional trimmer capacitor, C128 (C236), marked ANT. COMP., is employed for the first circuit. This capacitor permits tuning the circuit to resonance for antennas varying from 80 to 500 mmf capacity.

The type 991 gaseous discharge tube, V105 (V205), protects the input circuit from damage by high r-f voltages induced by local transmitters. Ionization in this tube bypasses excessive r-f currents to ground.

b. R-F STAGES.—The four tuning bands are selected by the ganged switches, S101 to S105 (S201 to S205). These switches not only select the appropriate transformers, T101 to T116 (T201 to T216), but also short out unused circuits which would otherwise introduce spurious resonance effects or "dead spots." Switches S101 to S105 (S201 to S205) operate to switch transformer coils in the two r-f amplifier stages and the oscillator stage.

In two positions of the RECEPTION transfer switch, S304, agc bias is applied to the control grids of the two r-f stages. Exactly how and when the bias is applied will be covered under "3. IF/AF Circuits" in this section. Similarly, the panel GAIN control enables the cathode voltage on the r-f stages to be varied in certain positions of S304. This feature will also be discussed under the same heading.

To expedite circuit tracing, the transformers and switch contacts associated with each band are listed in Table 2-1.

TABLE 2-1. PRESELECTOR RBB/RBC-TRANSFORMERS AND SWITCH CONTACTS UTILIZED IN EACH TUNING BAND

BANDS (SEE TABLE 1-1)	TRANSFORMERS	SWITCH CONTACTS S101 TO S105 (S201 TO S205)
1	T101, T105, T109, T113 (T201, T205, T209, T213)	1, 2, 7, 13
2	T102, T106, T110, T114 (T202, T206, T210, T214)	1, 6, 12, 18
3	T103, T107, T111, T115 (T203, T207, T211, T215)	5, 11, 17, 18
4	T104, T108, T112, T116 (T204, T208, T212, T216)	4, 10, 16, 17

Five-section capacitor C149 (C257) serves as the tuning control for all bands.

(1) R-F AMPLIFIER, RBB.—The transformers in the RBB preselector employ loosely-coupled primaries, resonant at frequencies considerably higher than the high limit of their respective bands. This design limits the r-f gain to a value just sufficient to insure a desirable high signal-to-noise ratio. The tubes are, accordingly, permitted to operate at the optimum for maximum signal-to-noise ratio and minimum cross-modulation. Each tuned circuit is supplied with separate trimmer capacitors for each band.

The two r-f amplifier stages in the RBB equipment employ two type 6SK7 tubes, V101 and V102. In this equipment, where the r-f selectivity appreciably affects the overall weak signal selectivity, degeneration is introduced in the cathode circuits of V101 and V102 by resistors R124 and R125. These resistors tend to neutralize variations in tube input capacities and thus minimize changes in overall selectivity resulting from gain control variation.

Resistors R102 and R103 are cathode bias resistors while capacitors C115 and C118 are the cathode bypass capacitors.

A trap circuit, L101-C106, in the screen grid circuit of V101 reduces interference from signals on the i-f amplifier frequency. Resistors R113-R122 and R114-R123 are screen-grid voltage-divider networks for V101 and V102, respectively. Items C116 and C119 are the screen grid bypass capacitors. Resistors R105 and R106 act as plate voltage filters while C117 and C120 are plate bypass capacitors. The combination of R110-C113 forms a control-grid filter network for V102.

(2) R-F AMPLIFIER, RBC.—Unlike the low-frequency receivers, the transformers in the RBC preselector employ primaries which resonate in conjunction with the tube plate capacitance at frequencies BELOW the low limits of their respective bands. This insures optimum performance over the operating range.

Capacitor C210 couples the RBC r-f input circuits to the first r-f amplifier stage which employs a type 6AB7 tube, V201. This type tube, by virtue of its high transconductance characteristic, permits better signal-to-noise ratio in the higher-frequency bands. (It should be noted at this point that the RBB unit utilizes a type 6SK7 tube for the first r-f stage—one of the chief differences in the two preselector sections.) The second r-f stage, V202, employs a type 6SK7 tube. Items R216 and R217 are grid leak resistors for V201 and V202, respectively. The control grid filter networks include R209-C222, and R210-C223. Bias on the control grids of V201 and V202 is set at the proper value by action of cathode resistors R201 and R202. Capacitors C225 and C228 are cathode bypass capacitors. Components C226 and C229 are the screen bypass capacitors. Resistors R205 and R206 are plate filters for V201 and V202 while C227 and C230 are plate bypass capacitors.

Tube V201 is coupled to V202 by C211: V202, in turn, is coupled to the first detector stage by C212.

(3) OSCILLATOR.—A type 6AB7 tube, V103 (V203), is used in the heterodyning oscillator stage. Operating as an electron-coupled oscillator, the screen grid of the oscillator tube functions as the plate of the oscillator circuit and operates at r-f ground potential because of the low-impedance connection of capacitor C123 (C233). Hence, any coupling between the oscillator circuit and the plate circuit, other than electron coupling, is minimized. Stray coupling occurring at the higher frequencies of the RBC equipment range is eliminated by the neutralizing circuit consisting of coil L201 and capacitor C216, connected from plate to filament of V203.

Instability at high frequencies resulting from cathode-heater capacity variations is eliminated by operation of the heater and cathode at the same r-f potential through the use of choke coil L201 and capacitor C259. At the high-frequency ends of the tuning bands the circuit temperature variations are compensated for by negative coefficient capacitors C101 to C104 (C206 to C209). The oscillator circuits are adjusted to track at 400 kilocycles higher than the radio-frequency and tuned-input circuits. This is accomplished by the use of fixed series capacitors C108 to C111 (C218 to C221) and adjustment of the inductance cores. Parallel trimmer capacitors C145 to C148 (C253 to C256) are provided for service alignment.

Oscillator supply voltages are stabilized by the use of an Amperite heater voltage regulator, V106 (V206), and a plate voltage regulator tube, V402, located in the rectifier power unit. The latter tube is of the OC3/VR105 type, which fixes the oscillator plate-screen supply at 105 volts.

(4) FIRST DETECTOR.—The output from oscillator V103 (V203) is coupled to the first detector or mixer tube V104 (V204). In the RBB units the output of the oscillator is fed to the cathode of V104 through C124, while the second r-f stage is coupled to the control grid of V104, a type 6AB7 tube. RBC units feed the combined signal from the second r-f and oscillator stages through C212 to the control grid of V204, a type 6SK7. The 400-kilocycle difference-frequency output from the plate of V104 (V204) is coupled to the if/af section by means of a coaxial conductor. (Attention is called to the difference in tube types used in RBB and RBC first detector stage.)

3. IF/AF CIRCUITS.

The IF/AF section includes the i-f, second detector, agc, and a-f circuits in addition to the silencer and noise limiter stages. Three i-f stages as well as three a-f stages are utilized. Figure 7-67 is the schematic diagram for the if/af section.

Major switching in the IF/AF section is accomplished by RECEPTION transfer switch S304 which controls the choice of voice, mcw, or cw reception, as well as of variations such as agc, silencer, and output level control. Therefore, for proper understanding of circuits involved, reference should be made to Table 2-2 and the five block diagrams, Figures 2-1 to 2-5, which summarize circuit operation.

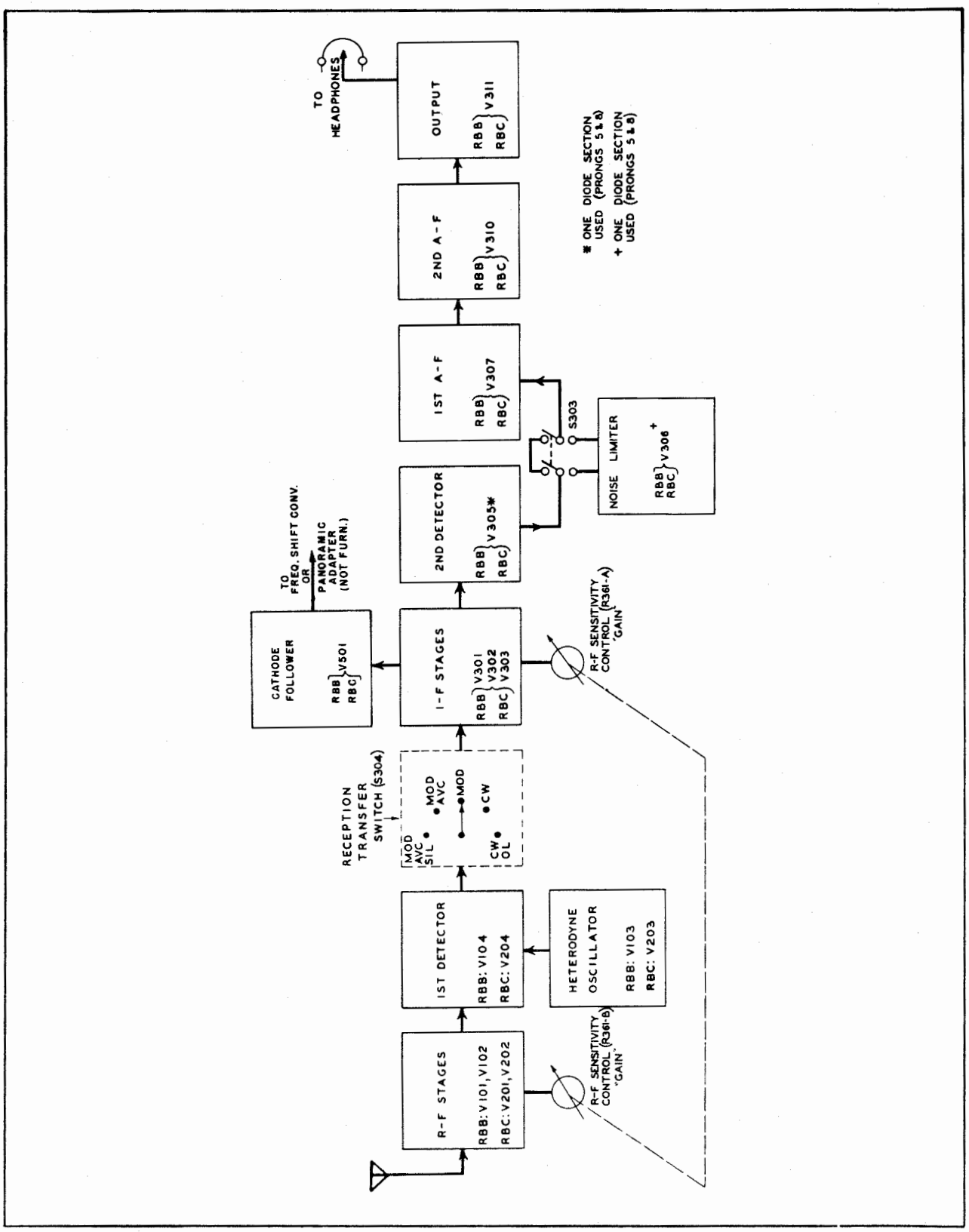


Figure 2-1. Over-all Functional Block Diagram, MOD Reception

To aid circuit tracing, the association of S304 panel settings and switch contacts is as follows:

MOD-AVC-SIL	S304, contacts 6, 12
MOD-AVC	S304, contacts 5, 11
MOD	S304, contacts 4, 10
CW	S304, contacts 3, 9
CW-OL	S304, contacts 2, 8

Since the RADIO SELECTIVITY switches, S306, S307, and S308, are shown in the BROAD position, as noted on Figure 7-67, no further identification is required.

To simplify circuit description and eliminate repetition, all circuits involved in each position of RECEPTION transfer switch S304 will be discussed briefly under the various switch position headings. Detailed analysis of the circuits will be given separately under headings such as "i-f," "silencer," etc.

a. "MOD" POSITION, S304.—Figure 2-1 is the block diagram for MOD reception. In the MOD position of S304, the 400-kc signal from the first detector is amplified in the three i-f stages, V301, V302, and V303, and coupled to the second detector, elements 5-8 of V305.

Output of V305 follows the optional path through S303 to the noise limiter stage, elements 5-8 of V306, or is fed directly to the a-f stages.

Tubes V307, V310, and V311 comprise the three a-f amplifying stages which are coupled through output transformer T301 to the phone jack, J303, or to the three-prong receptacle, J302.

Manual r-f sensitivity control, R361-A, -B, is connected through S304 and is identified as the GAIN control on the panel.

Although the MOD setting is generally intended for the reception of mcw signals, the position may also be used for voice reception.

Cathode follower stage, V501, coupled to the output of the second i-f stage, V302, enables a Frequency Shift Converter or a Panoramic Adapter to be connected to the RBB/RBC unit through J501.

b. "MOD-AVC" POSITION, S304.—Intended for voice reception, the MOD-AVC setting of S304 differs in only two particulars from the MOD position circuit operation described under the preceding heading. These two points, shown on Figure 2-2, are use of agc control and substitution of the a-f volume level control, OUTPUT LEVEL, for the GAIN control. Although the panel designation is "AVC," this position of S304 energizes the automatic gain control circuit (agc).

TABLE 2-2. SUMMARY-IF/AF CIRCUITS (RBB/RBC)

CIRCUITS AND CONTROLS	POSITIONS "RECEPTION" SWITCH, S304				
	MOD-AVC-SIL	MOD-AVC	MOD	CW	CW-OL
TYPE OF OPERATION — Voice	x	x	x		
TYPE OF OPERATION — Tone			x		
TYPE OF OPERATION — CW				x	x
AGC Circuit Energized	x	x			
OUTPUT LEVEL Control Connected	x	x			x
GAIN Control Connected			x	x	x
Silencer Circuit Energized	x				x
SILENCER Control Connected	x				
NOISE LIMITER Switch (Optional)	x	x	x	x	x
AUDIO SELECTIVITY Switch — BROAD	x	x	x	x	x
AUDIO SELECTIVITY Switch — SHARP	x	x	x	x	x
CW Oscillator Energized				x	x
Output Limiter Circuit Energized					x
Output to Frequency Shift Converter or Panoramic Adapter Available	x	x	x	x	x
RADIO SELECTIVITY Switch — BROAD	x	x	x	x	x
RADIO SELECTIVITY Switch — MED	x	x	x	x	x
RADIO SELECTIVITY Switch — SHARP	x	x	x	x	x

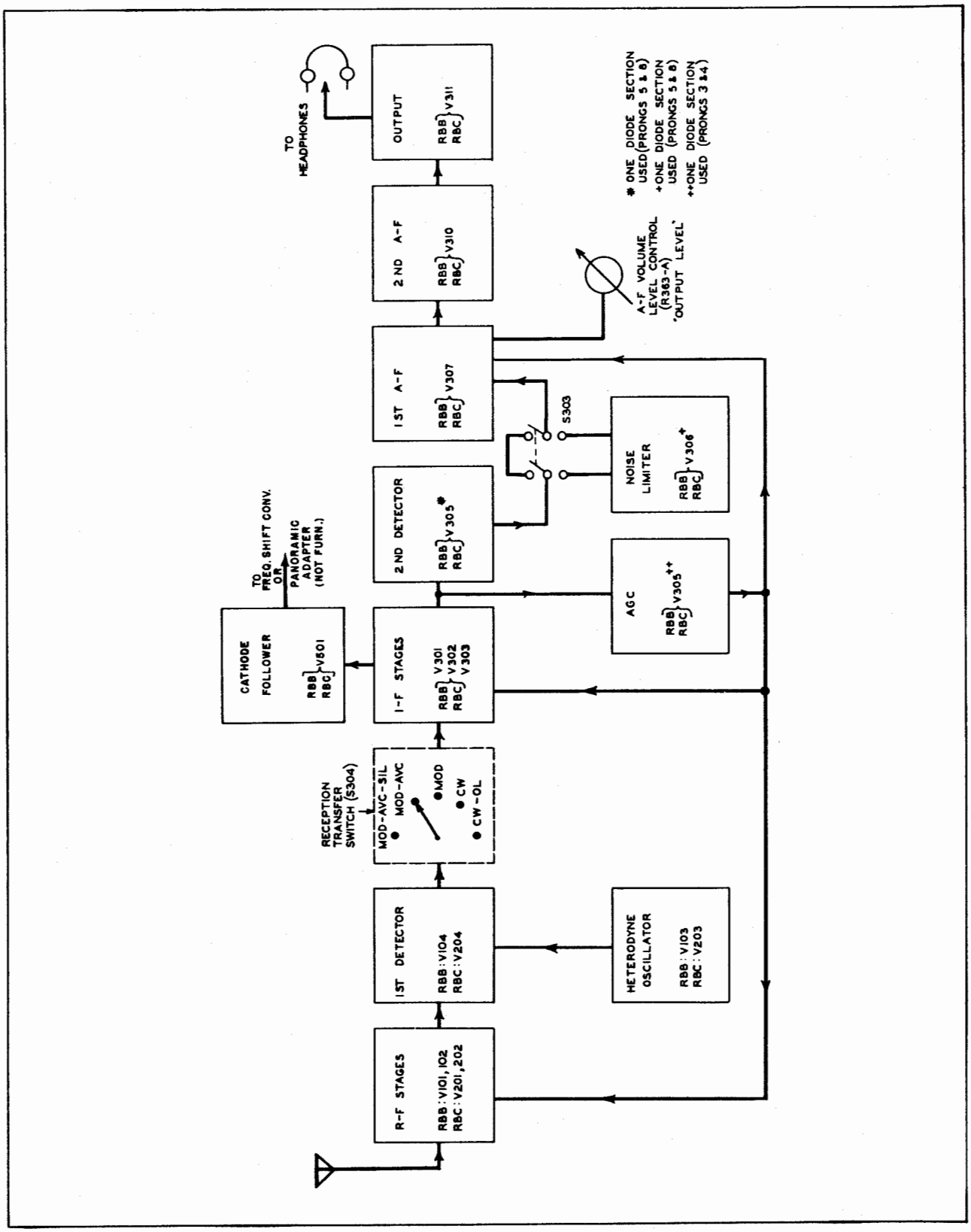


Figure 2-2. Over-all Functional Block Diagram, MOD-AVC Reception

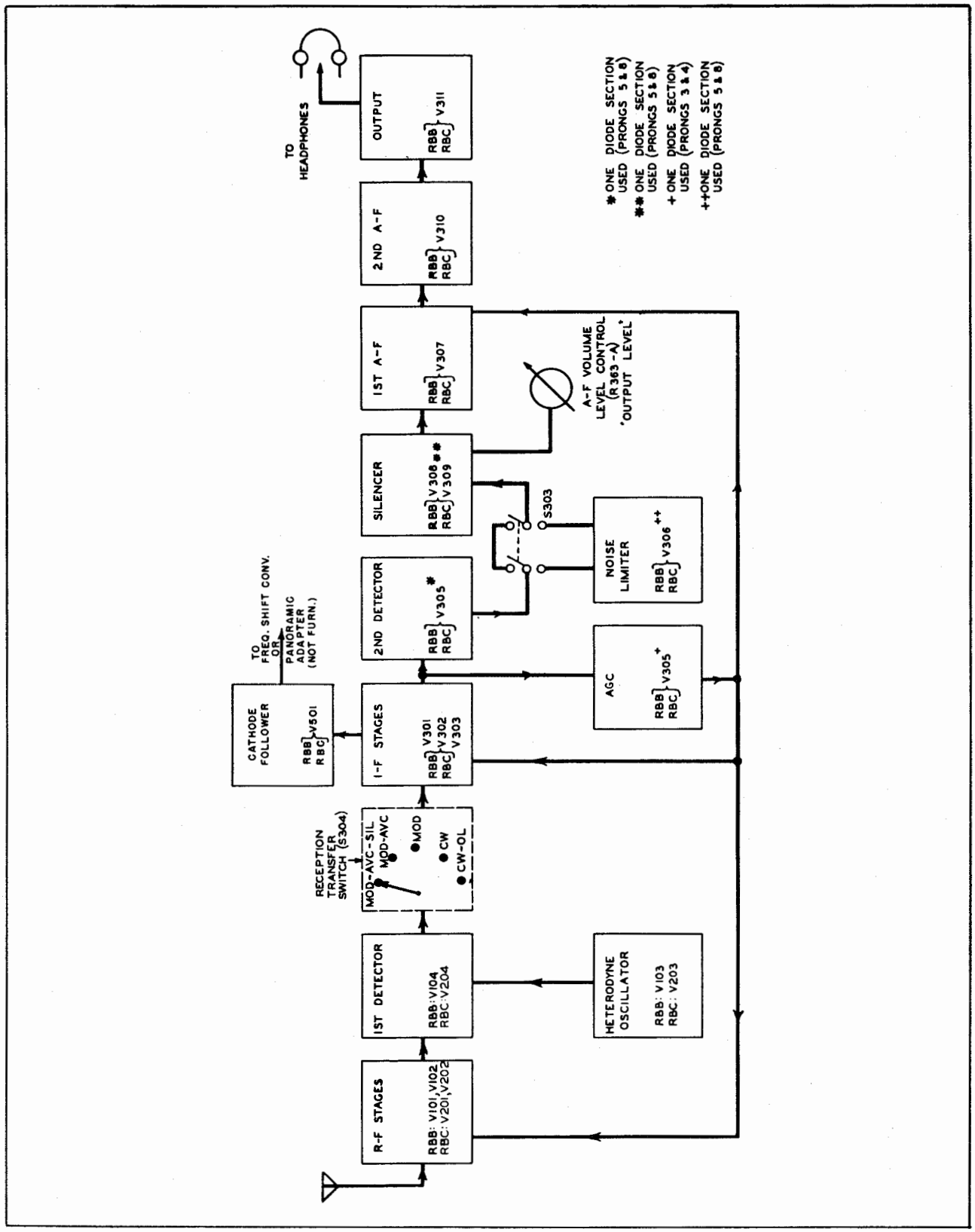


Figure 2-3. Over-all Functional Block Diagram, MOD-AVC-SIL Reception

Elements 3-4 of V305 constitute the agc stage which receives the 400-kc output from the third i-f tube, V303. Rectified output of the agc stage is utilized to control the bias on the first two r-f stages, V101, V102 (V201, V202), the first i-f stage, V301, and the first a-f tube, V307.

Using agc bias to control the r-f level of sensitivity makes unnecessary the use of GAIN control R361-A, -B. Hence, for MOD-AVC operation, OUTPUT LEVEL control R363-A is connected for regulating the a-f level in first a-f stage V307. The GAIN control is disconnected through contacts of S304.

c. "MOD-AVC-SIL" POSITION, S304.—As the designation "MOD-AVC-SIL" suggests, this position of S304 further expands the scope of the preceding MOD-AVC operation by including a silencing action. The silencer stages, V308 and elements 5-8 of V309, function to silence all signals above the level set by SILENCER control R369. The silencer stages are inserted between the output of second detector V305 and the first a-f stage, V307, as shown on Figure 2-3.

This switch setting is also intended for voice reception.

d. "CW" POSITION, S304.—The block diagram for the CW setting of S304 is shown in Figure 2-4. This type operation is intended for reception of cw telegraph signals.

For cw operation, the 400-kc signal from the first detector is amplified in the i-f stages, V301, V302, and V303, and is fed to the second detector, elements 5-8 of V305. Cw oscillator tube V304 generates an r-f signal which, with the i-f frequency, is mixed in the second detector stage.

The 1,000-cycle "beat" or difference frequency output of the second detector may be switched through the noise limiter, elements 5-8 of V306, or coupled directly to the a-f stages.

Output of the three a-f stages, V307, V310, and V311, is coupled through transformer T301 to jack J303 or receptacle J302. Audio band-pass filter L301, located between the first and second a-f stages, is designed for sharp attenuation of frequencies above and below the 1,000-cycle cw note.

GAIN control R361-A, -B controls the r-f sensitivity level for cw operation.

e. "CW-OL" POSITION, S304.—Operation in the CW-OL position of S304 involves the same circuits as in the preceding CW discussion, with the addition of output-limiter stages. The output limiter provides a substitute for agc action on cw signals, by limiting noise peaks which exceed the signal level. The action is useful in cases of severe fading.

After passing through the audio band-pass filter, L301, the 1,000-cycle cw signal is amplified in V308 which functions as an additional a-f stage—required for efficient limiting action. From V308 the signal is coupled to two output limiter diodes, elements 3-4 of V306 and 3-4 of V309. Bias on the output limiter diodes is set by R363-B, OUTPUT LEVEL control. Thus, by varying the setting of R363-B, the limiting action may be adjusted to operate on very weak signals or delayed for action on strong inputs.

Although the GAIN control, R361-A, -B, is also operative for CW-OL reception, this control sets the volume level for weak signals. The OUTPUT LEVEL control, R363-B, regulates the level at which limiting action occurs.

f. I-F CIRCUITS.—The 400-kc difference frequency from the first detector, V104 (V204), is inductively coupled through T302 to the three i-f stages, shown in simplified schematic diagram Figure 2-6. These three stages, V301, V302, and V303, utilize i-f transformers with tapped secondaries to provide three degrees of selectivity. Selection of BROAD, MEDIUM, or SHARP operation is made through switches S306, S307, and S308 which are connected to the tapped windings of i-f transformers T302 to T305.

Transformers T302 to T305 are of the permeability-tuned type, with two adjustable cores. Variable trimmers, mounted inside each transformer case, provide further circuit adjustments.

g. SECOND DETECTOR.—Diode section 5-8 of V305 acts as the second detector, being coupled to the i-f stages through T305. Audio voltage from this stage is developed across R338 and is fed to the a-f stages or through the noise limiter via S303. Direct-current output of the second detector diode is available for test purposes through the link connector tied to plate 5 of V305. Opening of this link enables a microammeter to be inserted in series with the plate lead to ground.

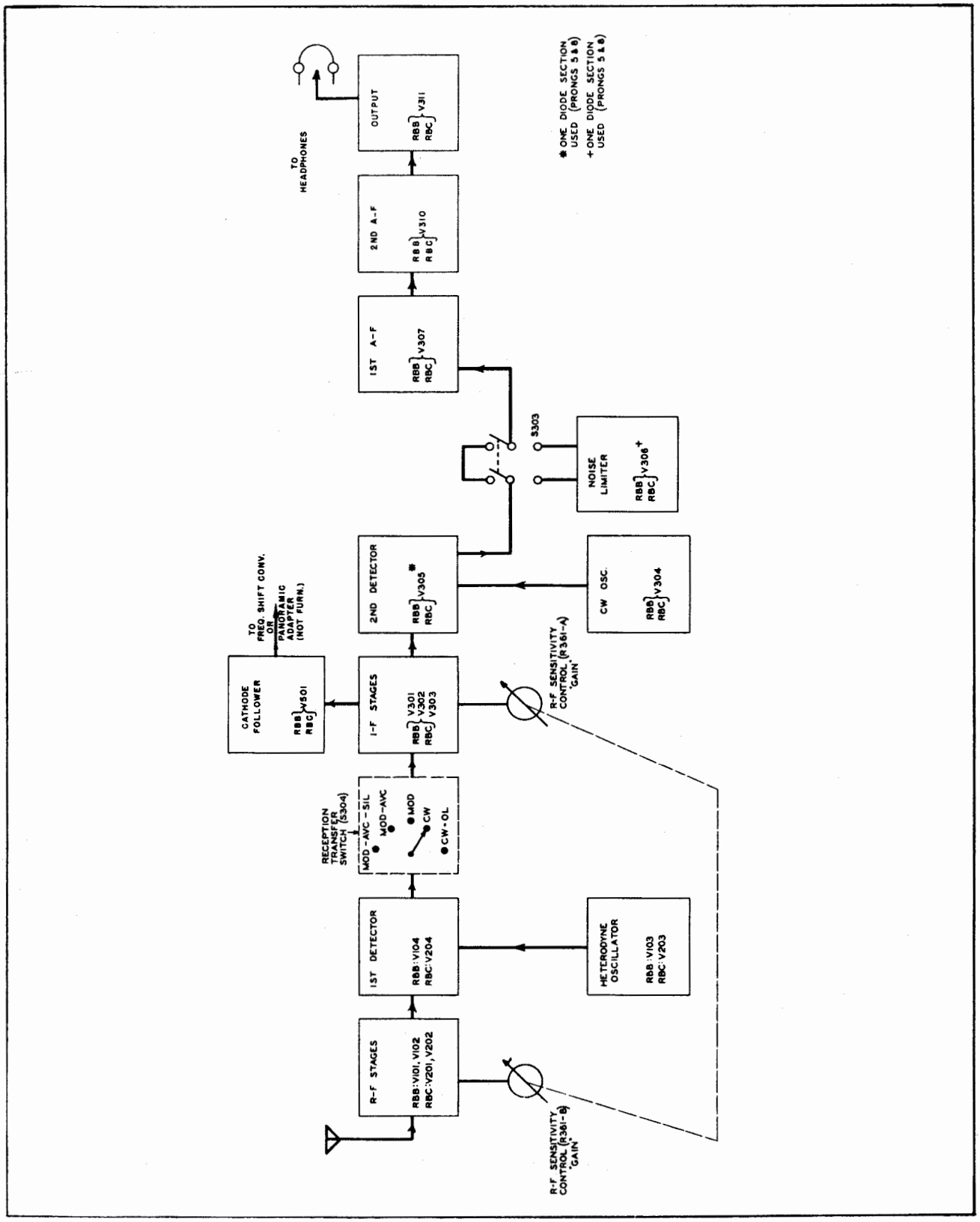


Figure 2-4. Over-all Functional Block Diagram, CW Reception

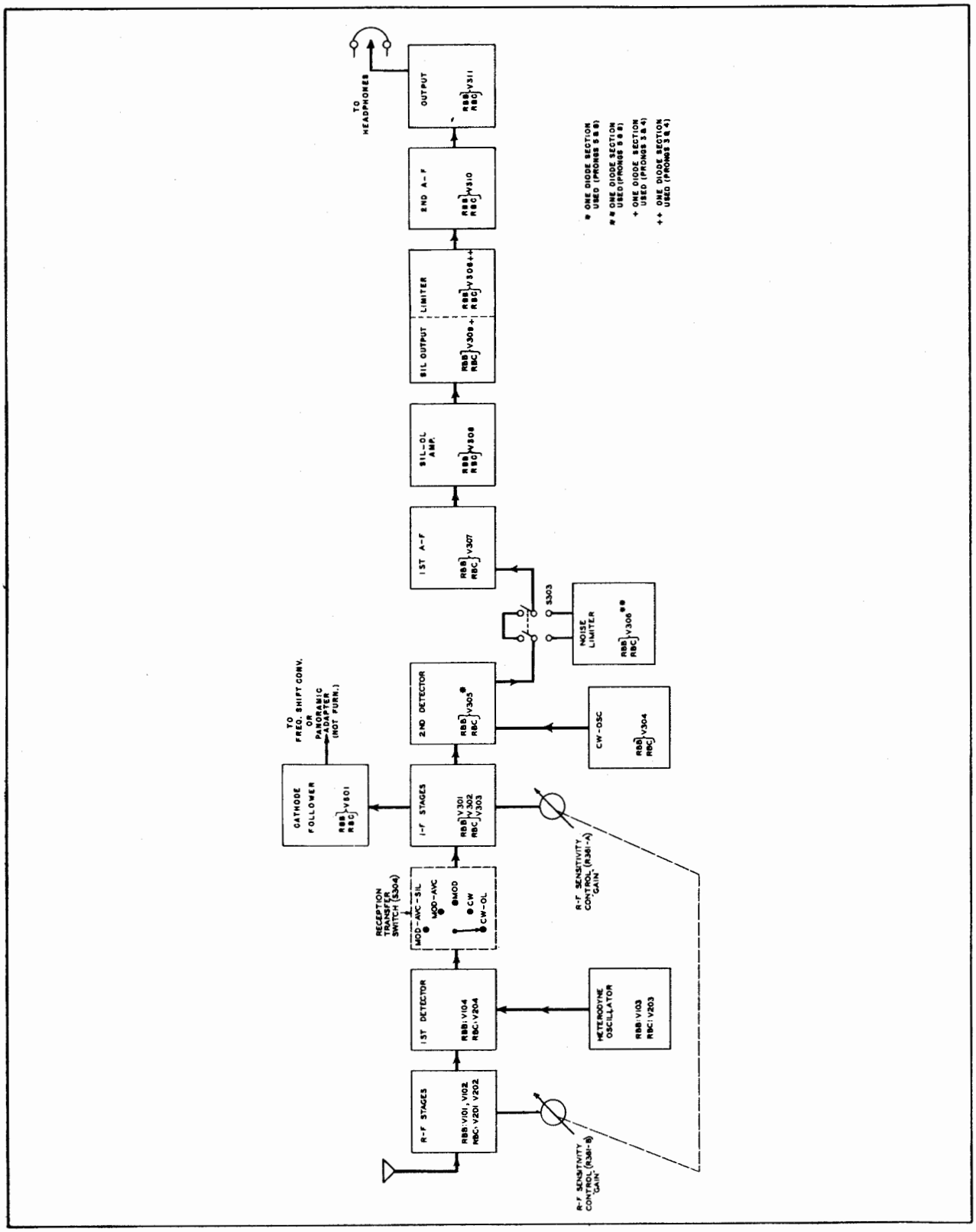


Figure 2-5. Over-all Functional Block Diagram, CW-OL Reception

Combinations R345-C320 and R363A-C328 are a-c load impedance networks designed to minimize distortion during deep modulation. Figure 2-7 includes a simplified schematic diagram of the second detector.

b. NOISE LIMITER.—The noise limiter stage is connected between the second detector and the following a-f stages. NOISE LIMITER switch S303 enables this circuit to be energized when desired.

Referring to the simplified schematic diagram, Figure 2-7, elements 5 and 8 of V306 comprise the limiter diode. When a loud noise impulse is received, the noise limiter diode acts as a switch to open the circuit between the diode load resistor, R348, and the a-f input coupling capacitor, C328. The noise limiter diode normally acts as a low resistance in series with the a-f input circuit, since its cathode is kept at a negative potential with respect to the plate because of the voltage drop across resistor R347. Electrical interference, representing noise, causes an immediate increase in potential on the plate of the noise limiter diode. Voltage to the cathode, however, is delayed by the length of time required to charge capacitor C320 through resistor R345. Thus, for a short interval, the plate is more negative than the cathode, and during this time, the diode acts as an open circuit. This momentary delay is usually sufficient to eliminate the noise pulse, preventing its amplification in the a-f stages.

i. A-F CIRCUITS.—Tubes V307, V310, and V311 are used in the three resistance-coupled, a-f amplifying stages. Switch S303 couples the first a-f tube, V307, to the output of either the second detector or the noise limiter. Figure 2-7 includes V307 while the other two a-f stages are shown on Figure 2-8.

Output to the a-f circuits is controlled by R363-A, OUTPUT LEVEL control, for three of the five types of operation, as listed in Table 2-2. This control varies the input level, through coupling capacitor C222, to the grid of V307.

Tube V307 is a conventional amplifier, employing R356 as the grid leak resistor. Bias for V307 is obtained by action of cathode resistor R314. Operating voltage for the screen grid of V307 is supplied through series resistor R349. The decoupling circuit R324-C348 is intended for reduction of power-supply hum.

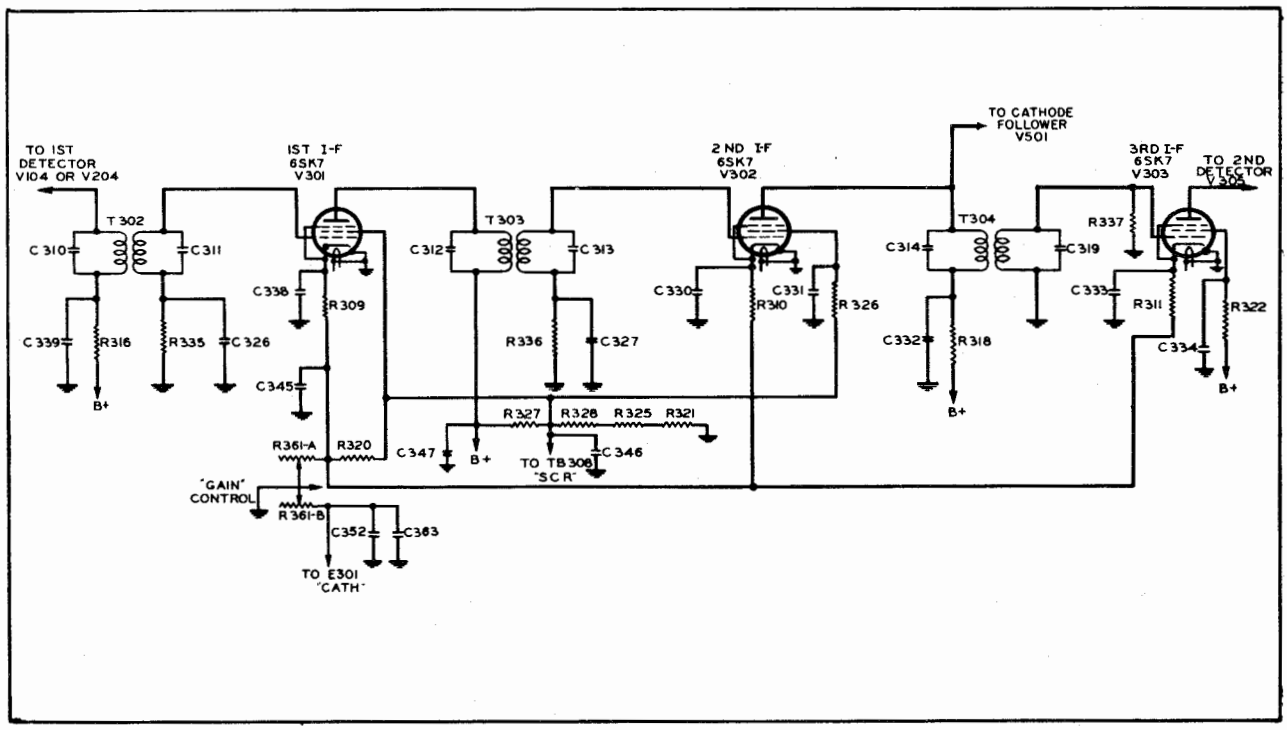


Figure 2-6. Simplified Schematic Diagram, I-F Circuits

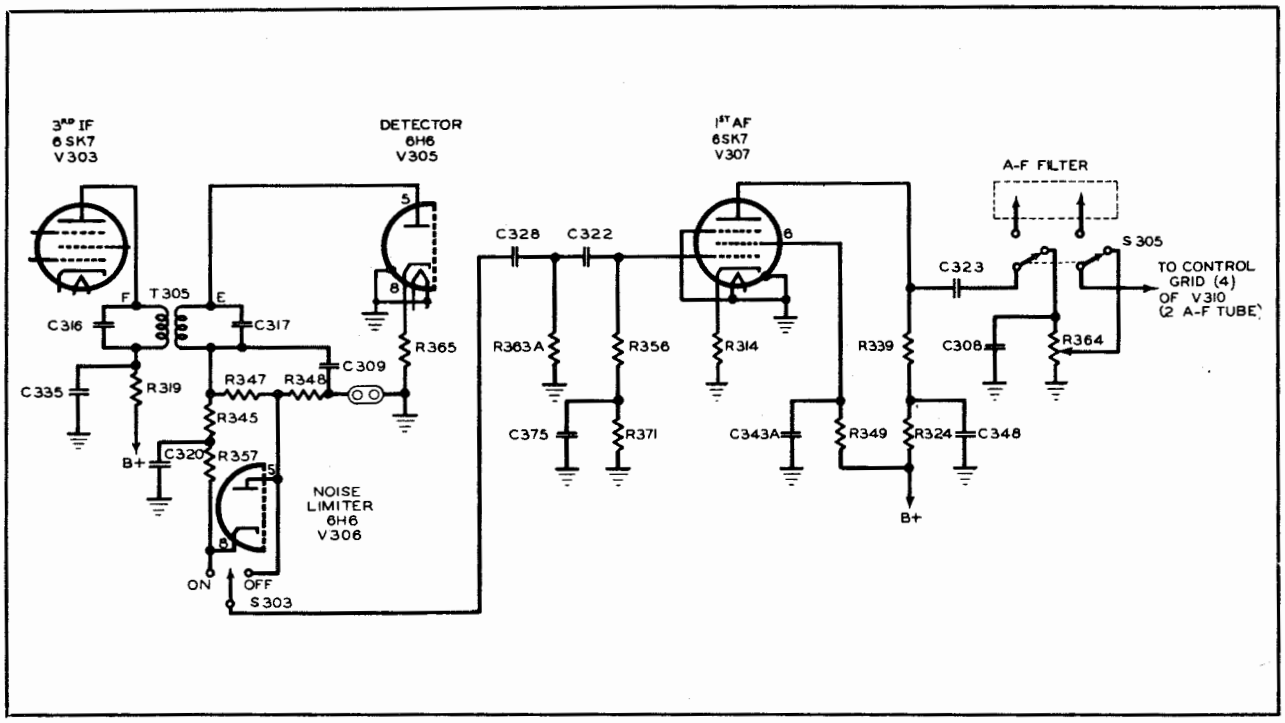


Figure 2-7. Simplified Schematic Diagram, Noise Limiter Circuits

For CW operation band-pass filter L301 is switched between V307 and V310, the first two a-f stages, through operation of AUDIO SELECTIVITY switch S305. Filter L301 actually consists of two different units, L301-1 and L301-2. The RBB receiver uses L301-1 which has a band-pass width of 200 cycles at 6 db attenuation. In the RBC receiver the band-pass width is 300 cycles. The wider band in the RBC equipment facilitates tuning at the higher frequencies. Both filters are designed to pass 1,000 cycles and have 0.1-megohm input impedances. The output resistance load is incorporated in the filter unit and in the case of L301-2 serves also as an attenuator so that the two units are interchangeable with respect to insertion loss.

When L301 is switched out of the a-f circuit by S305, potentiometer R364 is connected. Use of R364 permits the audio level to be adjusted to a value three to five db below that obtained when L301 is connected.

Circuits in the second a-f stage, V310, and the a-f output stage, V311, are similar to the a-f input circuits of V307. Cathode resistors R312 and R313 supply the bias for V310 and V311. Inverse feedback from output

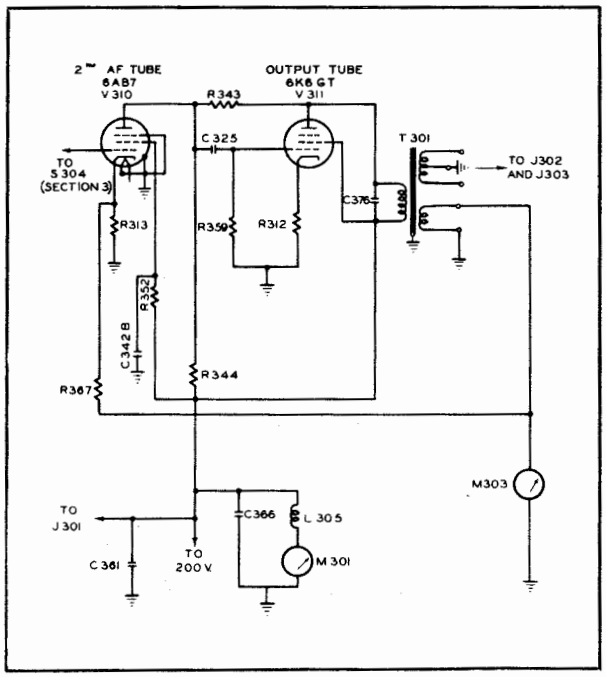


Figure 2-8. Simplified Schematic Diagram, Last Two A-F Stages

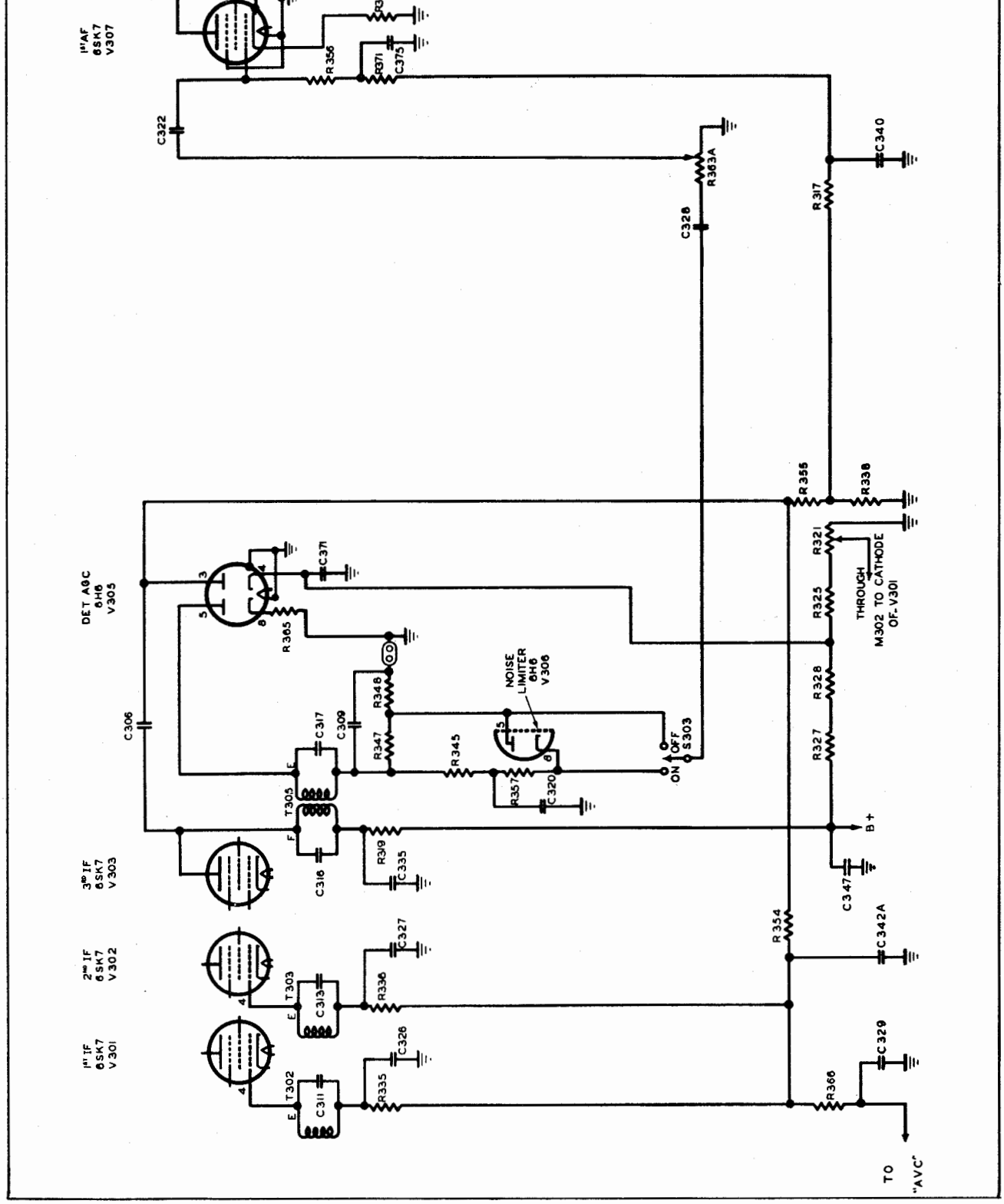


Figure 2-9. Simplified Schematic Diagram, AGC Circuits

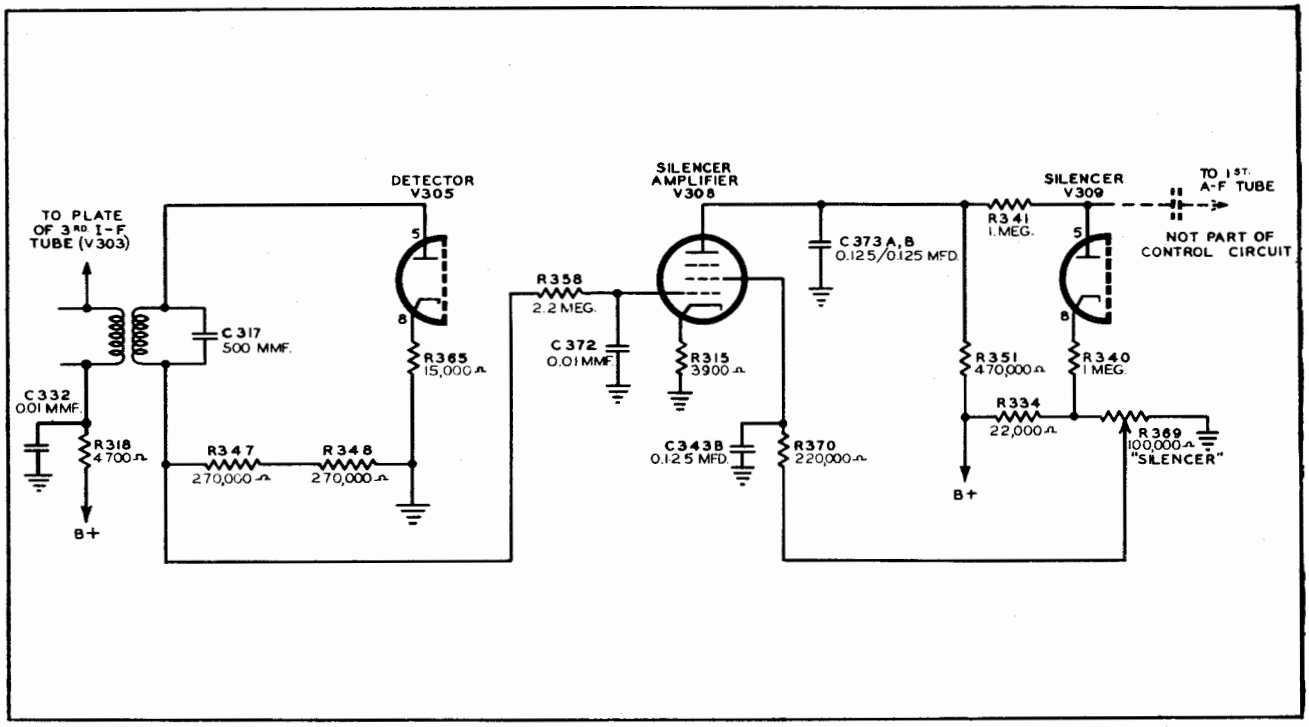


Figure 2-10. Simplified Schematic Diagram, Silencer Circuits

transformer T301 is applied through R367 to the second a-f stage, V310. Through coupling resistor R343, connected between the plates of V310 and V311, the degeneration produced serves to hold the output constant for wide variations in plate loading. Thus, the output winding of output transformer T301 will supply from one to twenty pairs of 600-ohm headphones connected in parallel, with not more than three db change in output.

Transformer T301 is provided with an output winding having a grounded center tap suitable for feeding a balanced 600-ohm line. The output winding is connected in parallel to a headphone jack, J303, located on the front panel and to an output receptacle, J302, mounted at the rear of the if/af unit. Both output connections are suitably filtered to minimize pickup from local transmitters.

A separate secondary winding on the output transformer is connected to meter M303 through OUTPUT switch S302.

j. AGC CIRCUIT.—Although "AVC" is the panel designation used in two positions of S304, the reference is to the agc, or automatic gain control circuit. The plate of the third i-f tube, V303, is coupled through C306 to the agc diode, elements 3 and 4 of V305. Delay voltage or bias obtained from bleeder network R321-R325-R327-R328 is applied to the cathode of the agc diode. Adjustment of potentiometer R321, therefore, enables the agc action to be set at a predetermined input signal level. Figure 2-9 includes the agc circuit.

The agc bias developed across load resistors R338-R355 is fed through filter resistor R354 to the two r-f stages, the first two i-f stages, and the first a-f stage. The agc time-constant, determined largely by C242-A, is kept at a low value so that serious distortion will not be introduced in the a-f stage at low modulation frequencies. It will be noted that the final i-f stage is not controlled by agc, since this stage is operated at its optimum output capabilities.

k. SILENCER AND O. L. CIRCUITS.—The silencer circuits are used only in the MOD-AVC-SIL and CW-OL positions of S304. The CW-OL position uses the output limiter circuit in addition to silencer action.

As shown in Figure 2-10, tube V308 and elements 5-8 of V309 comprise the silencer stages. Tube V308 acts as an additional a-f amplifier stage which raises the audio level for more efficient silencing action. The silencer diode, V309, functions as a limiter to pass only signals above a predetermined level.

The silencer circuits follow the second detector or noise limiter—the silencer input being coupled through filter resistor R358 to the grid of V308. When the signal voltage falls below a preset level the control grid bias on V308 is reduced. This action increases the plate current, causing greater voltage to be developed across plate resistor R351. This, in turn, biases the silencer diode V309 so that it becomes non-conductive and cuts off the input to the audio stages.

The silencer diode is, thus, made conductive or non-conductive by the variation in voltage across resistors R340 and R341. Operating level of the silencer circuit is set by SILENCER potentiometer R369 which varies the potential on the screen grid of V308. Through variation of R369 the circuit may be adjusted to operate on any carrier input level in the range of 5 to 10,000 microvolts. To prevent noise pulses from being received when the receiver is operating in the silenced condition, the resistance-capacity combinations R358-C372 and R351-C373-A, -B are used to introduce a time constant which holds the plate current of tube V308 relatively uniform for noise pulses considerably above the desired signal level.

The output limiter, when energized by setting S304 to the CW-OL position, receives the silencer circuit output and passes it through two diodes so as to limit both sides of the cw signal. Elements 3-4 of V306 and V309 constitute the limiter diodes, as shown on Figure 2-11. These two diodes are connected as a full-wave rectifier in shunt with the plate load, R350, of silencer amplifier V308.

Bias control of the limiting level is set by OUTPUT LEVEL control, R363-B. The setting of R363-B determines the value of bias on cathode 4 of V306 and, hence, the operating level of this tube. A signal must be strong enough to override the bias before V306 will conduct.

Output from cathode 4 of V309 is coupled through C324 and R362 to the second a-f stage, V310. Setting of R362 controls the gain of the second a-f stage.

The general action of the output limiter on the audio wave is similar to that of the noise limiter effect on r-f waves. Major difference is that the noise limiter is slow in action and cuts off all signals completely during a noise peak of short duration. The output limiter, however, is rapid in action, and exerts a continuous control on the audio wave peaks as long as they exceed the preset value.

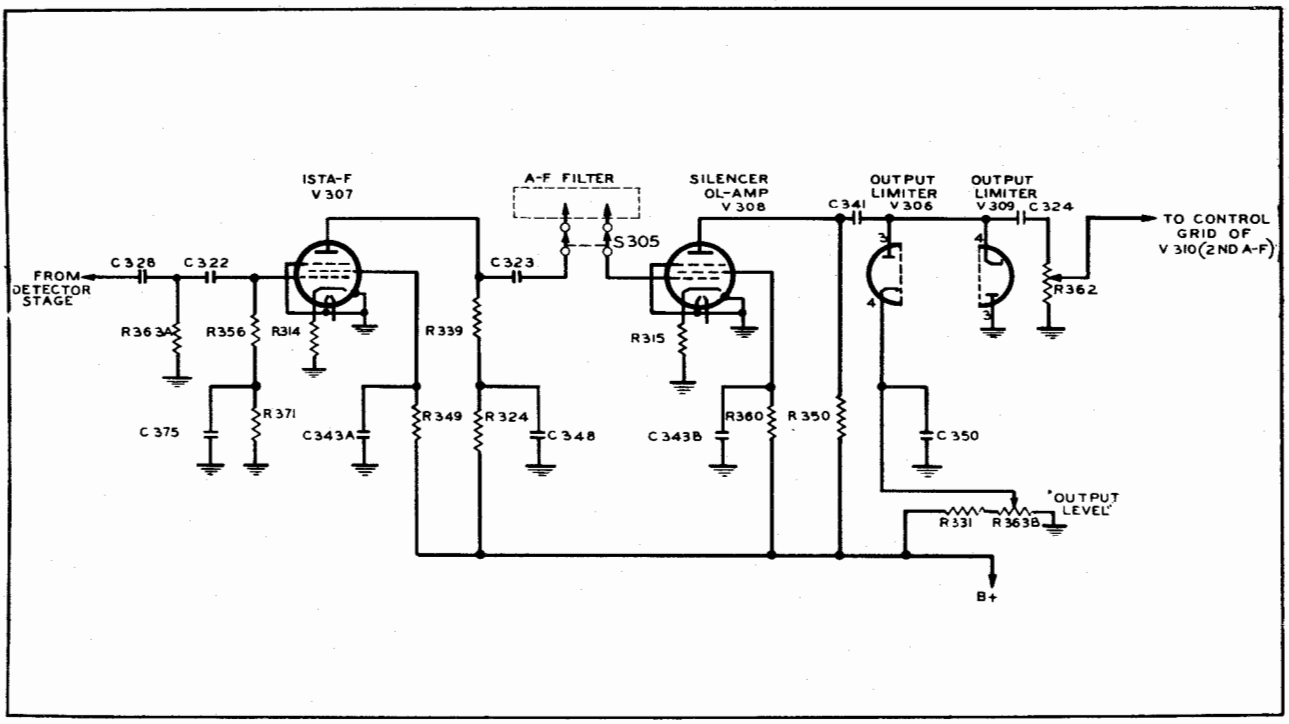


Figure 2-11. Simplified Schematic Diagram, Output Limiter Circuits

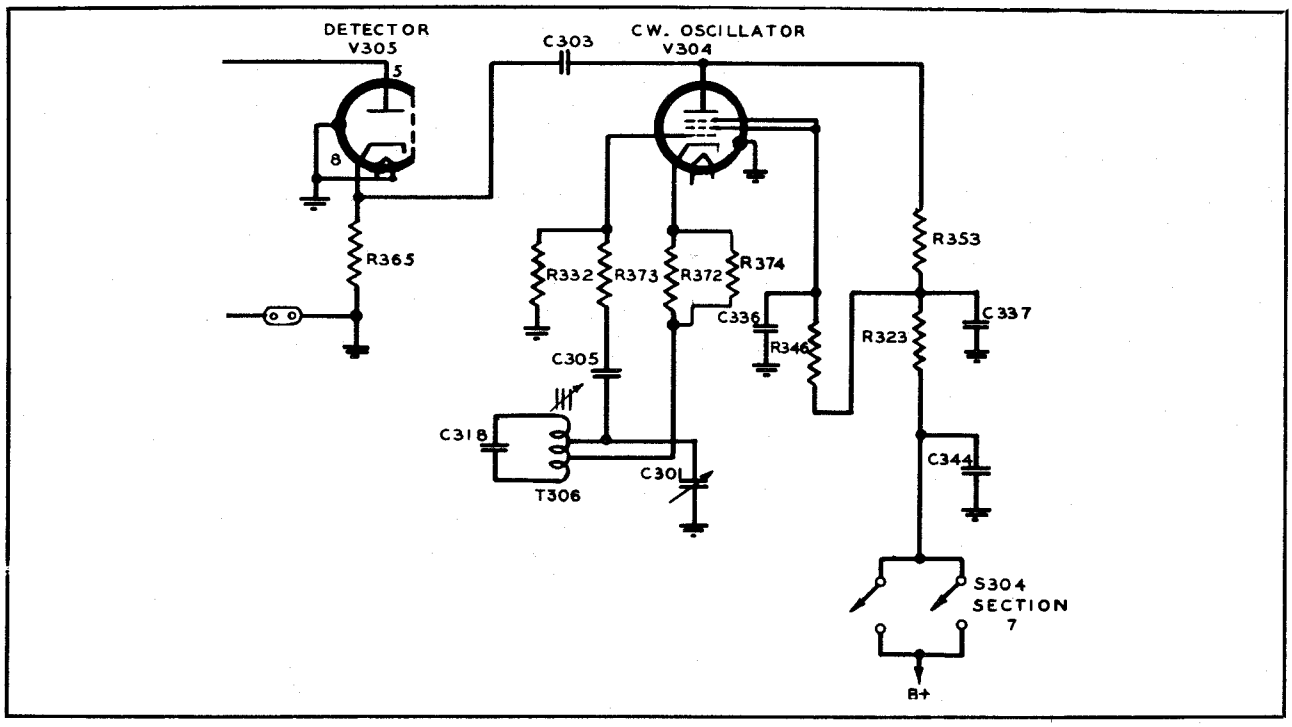


Figure 2-12. Simplified Schematic Diagram, CW Oscillator Circuit

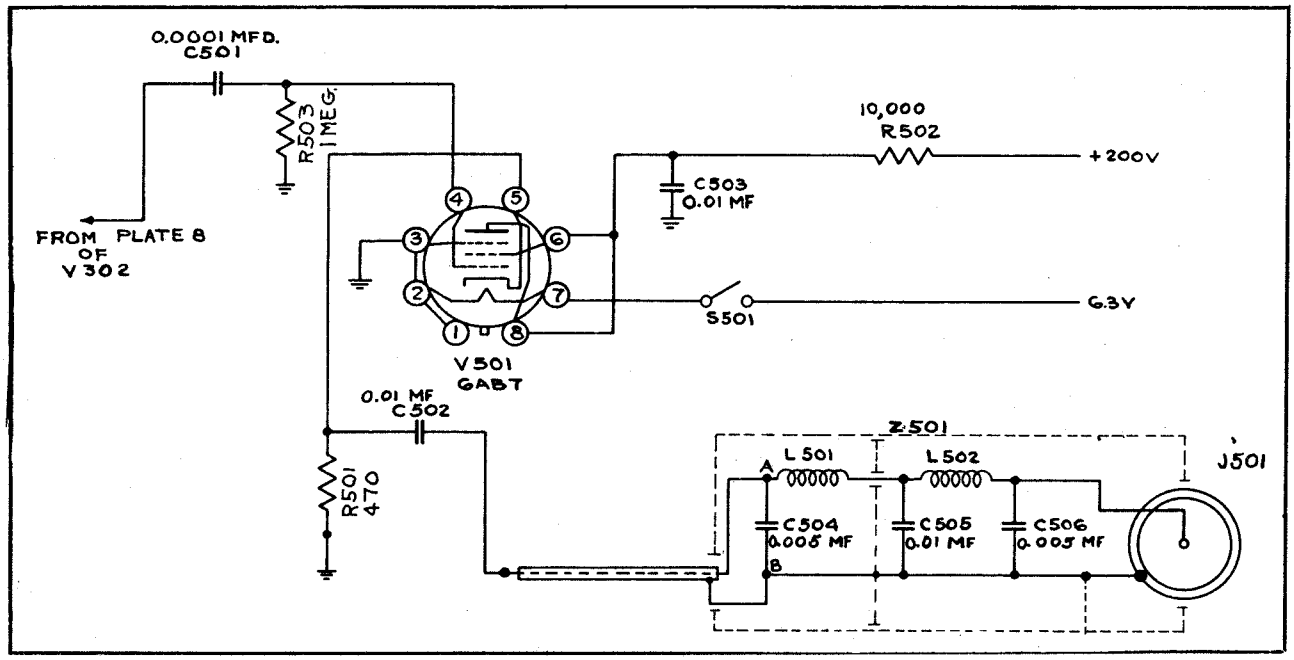


Figure 2-13. Simplified Schematic Diagram, Cathode Follower Circuit

l. CW OSCILLATOR.—For CW reception an oscillator stage, V304, provides a heterodyning frequency of 401 kilocycles, or 1,000 cycles higher than the intermediate frequency. A Hartley oscillator circuit is utilized for this stage, the plate output being electron-coupled to the screen grid. Output of V304 is fed through capacitor C303 to the cathode of the second detector, V305. The tuned circuit consists of transformer T306 and capacitor C318. Variable capacitor C301 provides for a variation of approximately 1,500 cycles from the oscillator frequency. Figure 2-12 is the simplified schematic diagram of the cw oscillator circuit.

m. METER CIRCUITS.—Three meters are included in the if-af section. Meter M301 is used to measure the plate voltage, M302 indicates the agc level, while M303 is an output meter.

When RECEPTION switch S304 is in either the MOD-AVC or MOD-AVC-SIL position, the INPUT meter M302 is connected. This meter, being shunted across cathode resistor R309 of V301, enables the input signal level to be determined in the first i-f tube. The meter is calibrated in decibels above one microvolt, up to a value of 120 decibels for one volt input. Two adjustments, potentiometers R368 and R321, are provided for calibration of the meter. Potentiometer R321 is the front panel ZERO SET control and is used to set the meter to zero for no signal input. The other potentiometer, R368, is a screwdriver adjustment located on the chassis, and is used for setting the maximum deflection to compensate for conditions of variation in overall gain, tube replacement, etc.

OUTPUT meter M303 is connected through switch S302 to secondary winding 3-4 of output transformer T301. Use of switch S302 and associated resistors enables output measurements to be made at varying levels.

n. CATHODE FOLLOWER.—The cathode follower circuit, employing tube V501, is utilized simply as a means for coupling a Frequency Shift Converter or a Panoramic Adapter to an RBB/RBC receiver. Essentially an impedance transfer device for connecting a low-impedance load to a high-impedance source, the cathode-follower stage is coupled to the output of the second i-f stage through capacitor C501. Figure 2-13 is the schematic diagram of this circuit.

Although the 400-kc i-f signal is amplified in V501, tying the output to the cathode results in no amplitude gain over the input signal level. Output receptacle J501 is connected to the cathode of V501 through capacitor C502 and filter Z501. Filter Z501 is a low-pass, two-section filter designed to pass frequencies below 550 kc, while attenuating those above 550 kc.

Filament switch S501 enables this stage to be energized only when required.

4. POWER UNIT CIRCUITS.

The Rectifier Power Unit utilizes a single 5U4-G tube in a full-wave rectifier circuit, as shown in Figure 2-14. A type OC3/VR105 tube is used for regulation of part of the d-c output. The unit operates from a power source of 110-120 volts, 55-65 cycles, single phase ac.

Input to the power unit, through receptacle J401, is passed through an r-f filter consisting of capacitors C401 to C404 and chokes L401 to L404. This filter, in conjunction with the power transformer shielding, provides attenuation between either a-c input terminal and any d-c or a-c output terminal of at least 80 decibels to r-f interference in the range of 0.5 and 27 megacycles. The filter also offers some protection against r-f interference at lower frequencies.

The POWER switch, S301, located on the receiver panel, is in series with the primary winding of power transformer T401.

Terminal board E405 serves as a tie-in point for the a-c input and the power transformer primary winding. An adjustable link on E405 provides means for selecting the 110, 115, or 120-volt transformer tap.

Four secondary windings are used in T401. Winding 11-12 supplies 5 volts for tube V401; winding 13-15 supplies 6.3 volts for all receiver tubes except oscillator tube V103 (V203); while 5-7 is the high-voltage winding. The remaining winding, 9-10, furnishes 17 volts ac for the filament circuit of V103 (V203).

Output of rectifier tube V401 is fed to a choke input, two-stage ripple filter L405-C406 and L406-C407. Although capacitor C405 is at the filter input, this capacitor is employed for r-f filtering and is of low capacity so as to have a negligible effect on regulation. The first stage of the filter employs tapped choke L405, the tapped portion being in series resonance with C406 at the ripple frequency. D-c output, approximately 200 volts, is connected to output receptacles J402 and J403.

Regulator tube V402 is connected through the series-dropping resistors R401, R402, and R403 to the 105-volt d-c output. This circuit provides a regulated d-c supply for oscillator V103 (V203).

Fuses F401 and F402 protect both sides of the power input to the rectifier unit.

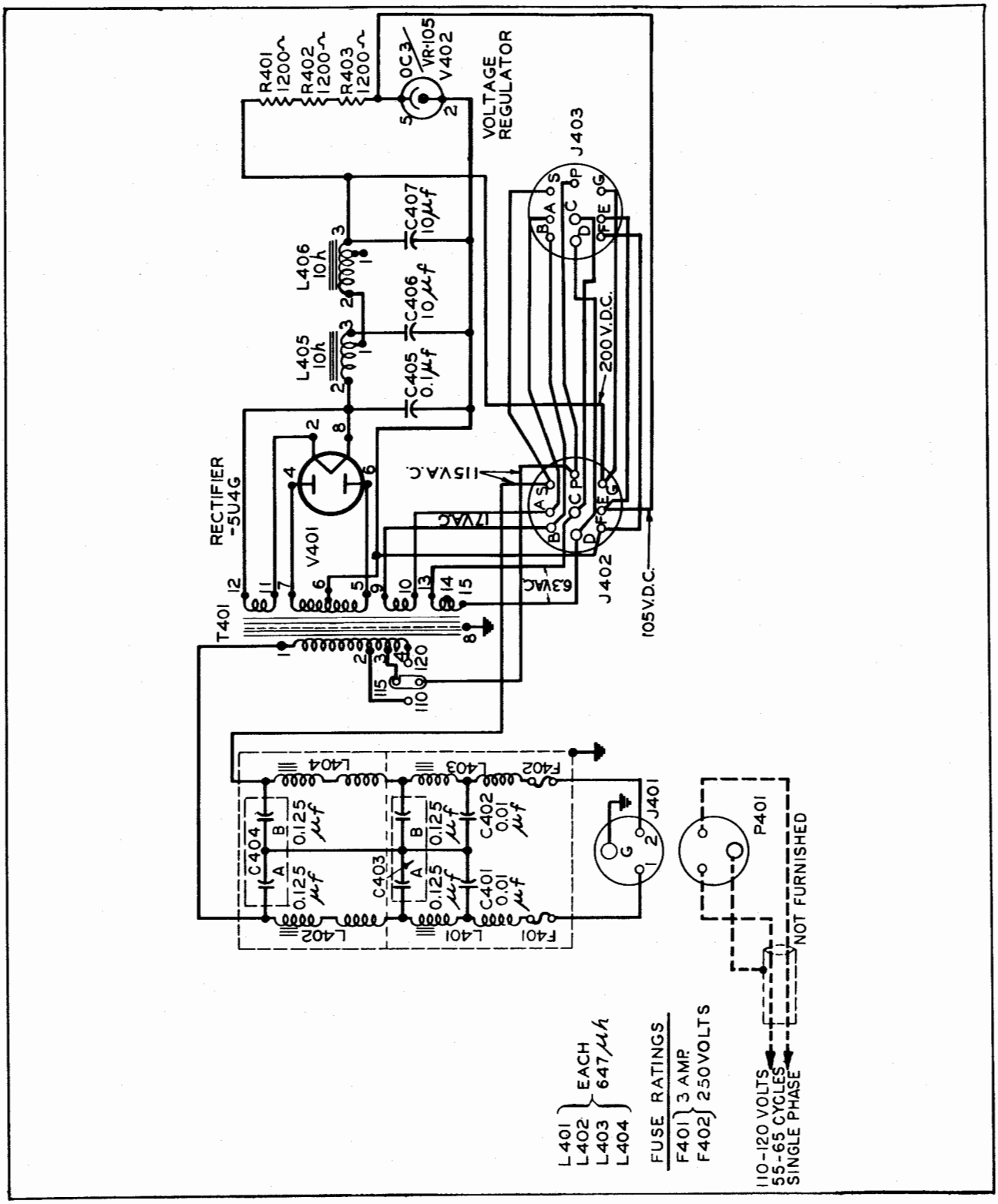


Figure 2-14. Schematic Diagram, Rectifier Power Unit

SECTION 3

INSTALLATION

1. UNPACKING.

To unpack the RBB/RBC receiver or the power unit, first cut the iron strapping around the wooden case.

Remove the wooden top cover and the excelsior around the inner carton.

Lift out the inner carton, and remove the waterproof outer wrappings from the carton.

Open the top of the carton and take out the various cardboard pads surrounding the unit. Then lift out the unit.

Inspect the unit for visible evidence of external damage.

2. INSTALLATION.

The RBB-5 and RBC-5 units are supplied with shock mounts attached and are intended for table-top installations. The RBB-6 and RBC-6 units, however, are not furnished with shock mounts but include mounting ears for rack mounting.

Similarly, the Rectifier Power Unit is furnished for the two types of mounting. Although shock mounts are not required for table-top installations, the addition of a type CRV-10348-A mounting shelf adapts the power unit for rack mounting. External marking on the shipping case denotes whether the CRV-10348-A mounting shelf is attached to the power unit. The difference in crated sizes will also serve to indicate a unit intended for rack mounting. The power unit itself is identical for both types of installations.

a. RACK MOUNTING.—Rack mounting of the RBB-6/RBC-6 receiver and the Rectifier Power Unit requires only that the units be fastened to the rack with suitable nuts and bolts, which are not supplied. Figure 3-1 shows the receiver rack-mounting dimensions, and Figure 3-2 the power unit mounting details.

b. SHELF MOUNTING.—The RBB-5/RBC-5 receiver is intended for mounting on a shelf or table top, as shown on Figure 3-3. Although also designed for shelf mounting, the power unit may be suspended from the underside of a table top as illustrated on Figure 3-3.

Figures 3-3 to 3-5 give the equipment outline dimensions and the space required for two receivers and associated power supplies. Five inches minimum clearance, for cable removal, should be provided at the rear of the receiver as shown on Figure 3-3.

(1) RECEIVER.—Remove the receiver chassis from its cabinet. This may be accomplished by disengaging the captive thumbscrews located around the edge of the panel. Take hold of the round pull-knobs provided on the front panel and withdraw the chassis. Note that the chassis strikes a pair of stops when partially withdrawn. These stops may be released by pressing on the stop arms, through holes on each side of the chassis.

Determine the receiver mounting area, then drill four mounting holes for each receiver as shown on Figure 3-5.

Next, mount the cabinet in place, using the hardware provided. As shown on Figures 3-5 and 3-6, insert the cap screws through the shock mounts, using one washer, lock washer, and nut on each screw.

(2) POWER UNIT.—If the power unit is to be mounted on a shelf or table top, drill four mounting holes in the shelf, as indicated on Figure 3-7.

If the unit is to be suspended from the underside of a shelf, use Figure 3-8 and drill four mounting holes in the top of the cabinet. Location of the holes is indicated on the shelf drilling plan, Figure 3-9. Remove the chassis from the case before drilling.

Mount the cabinet on the table, using the four cap screws, washers, lockwashers, and nuts supplied. Figure 3-10, showing the section for under-shelf mounting, illustrates placement of the mounting hardware. The cap screws should be inserted from the top for above-shelf mounting.

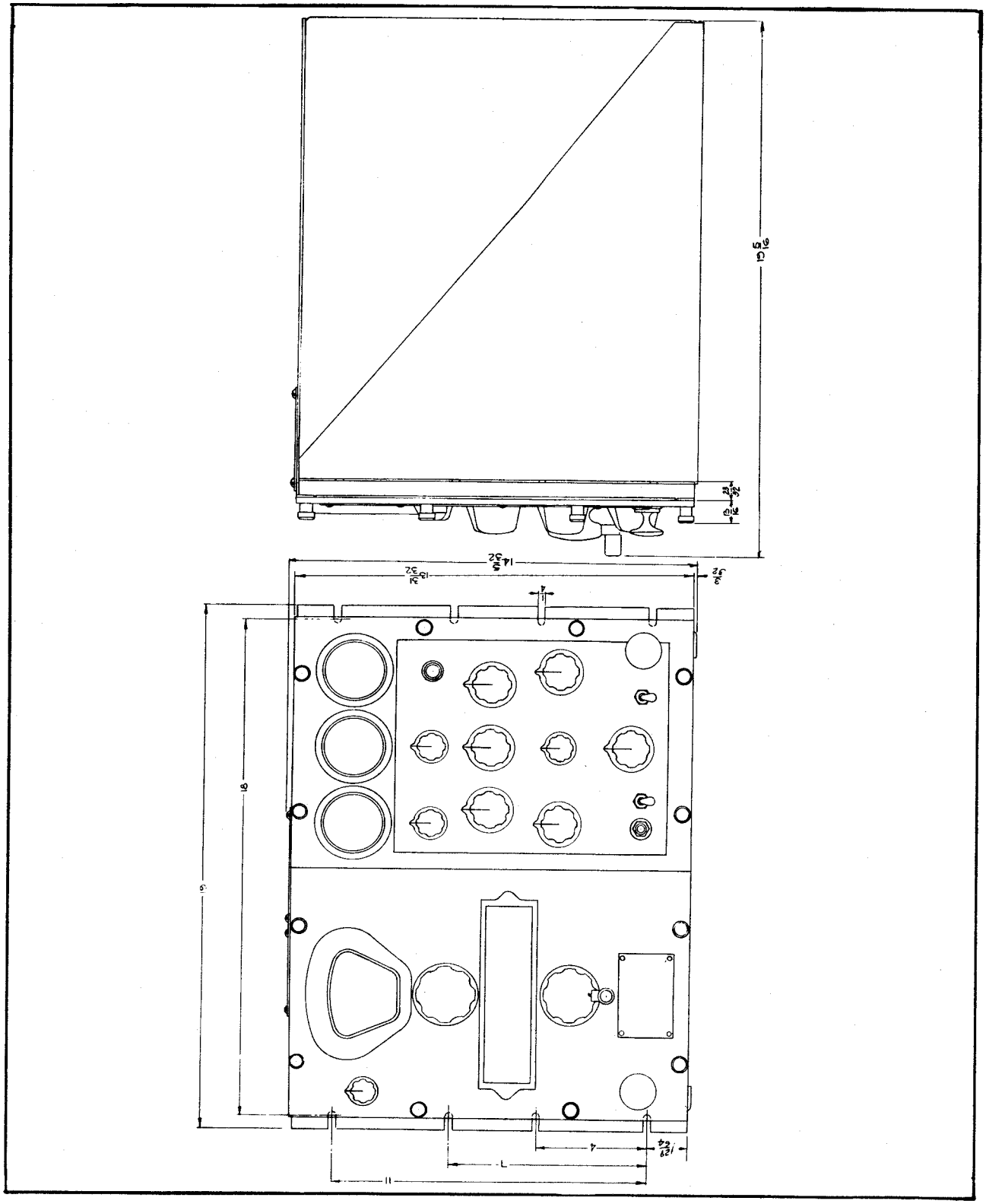


Figure 3-1. RBB-6/RBC-6 Rack-Mounting Dimensions and Outline

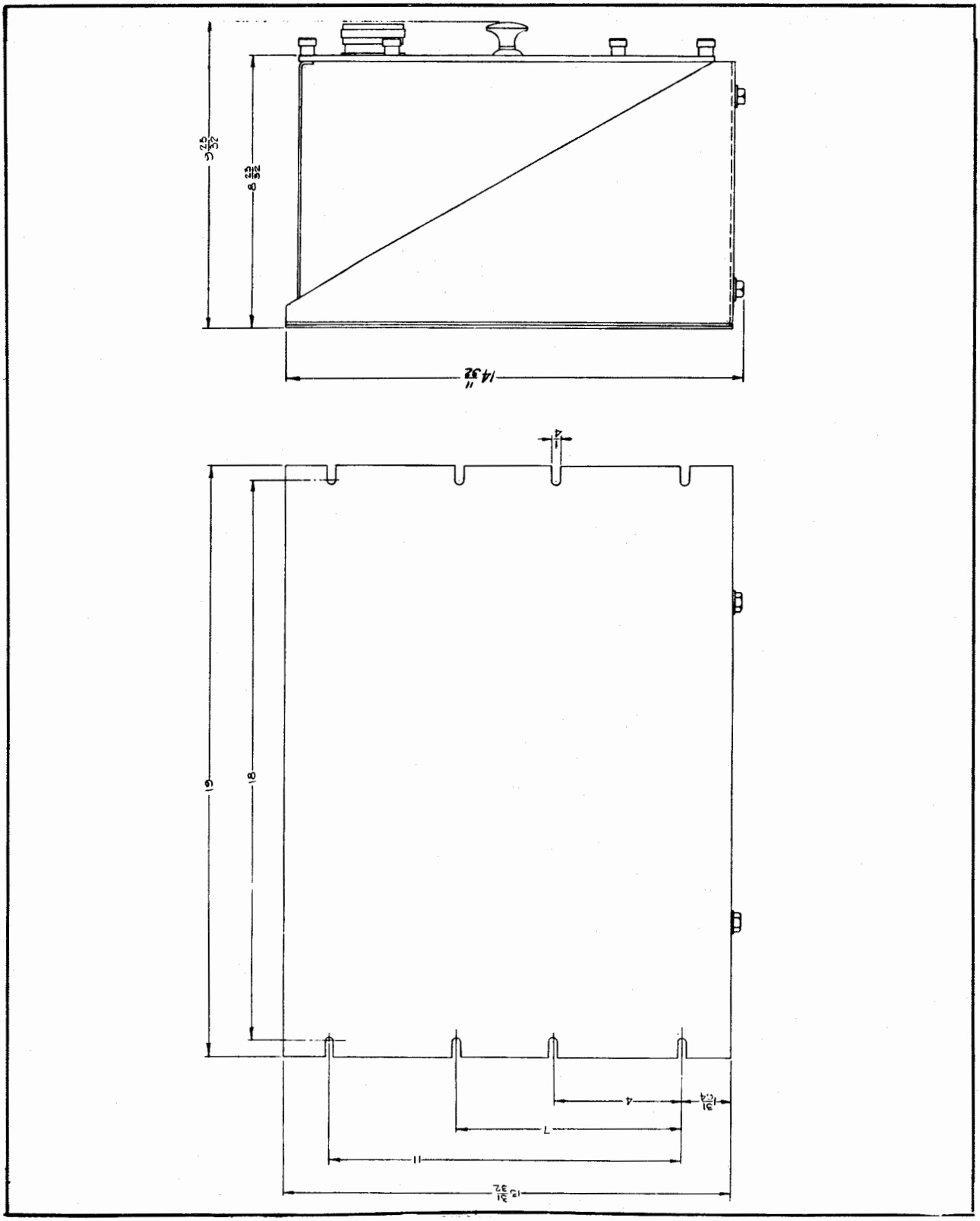


Figure 3-2. Power Unit Rack-Mounting Dimensions and Outline

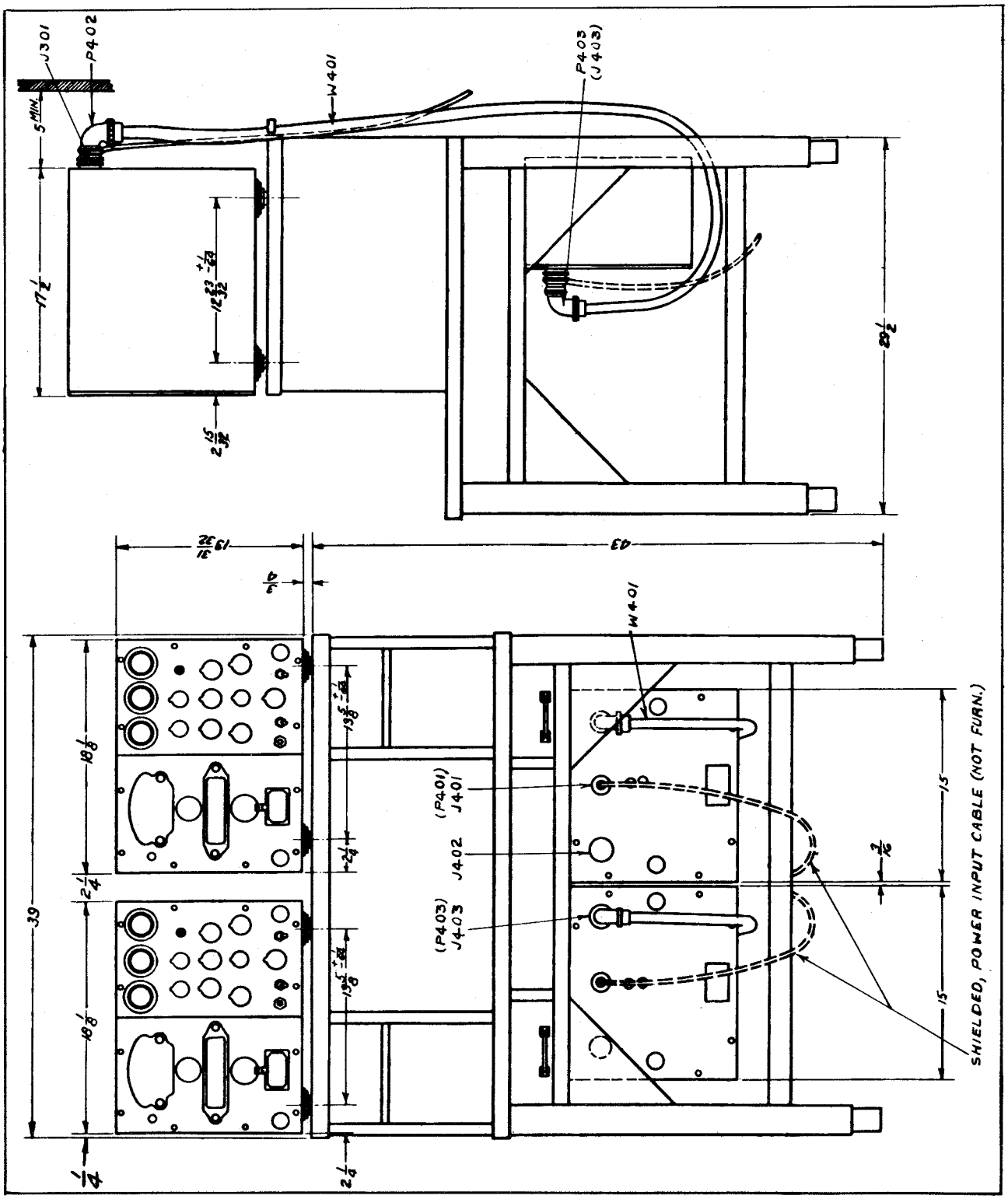


Figure 3-3. Clearance Dimensions and Cabling Details

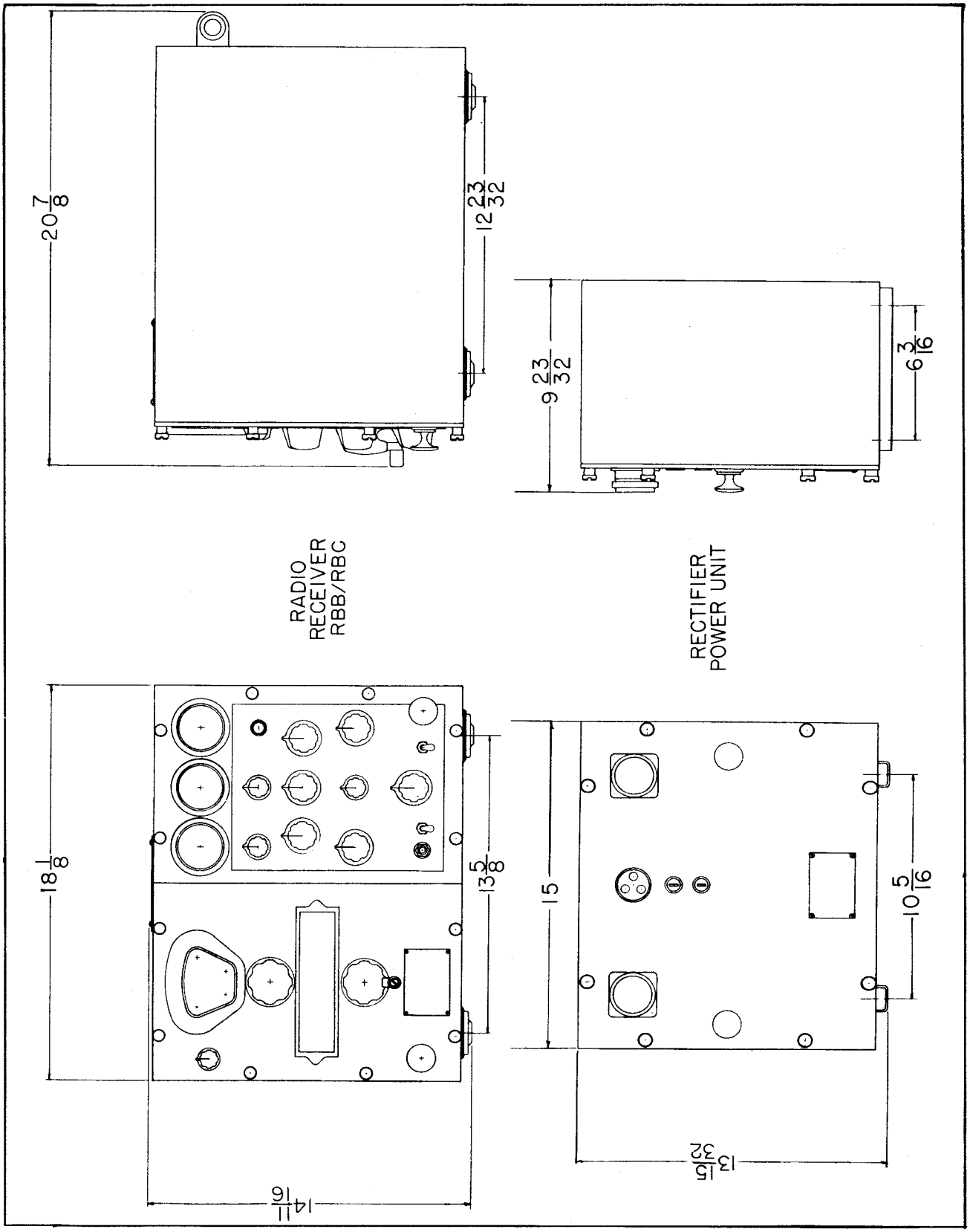


Figure 3-4. RBB-5/RBC-5 Shelf-Mounting Dimensions and Outline

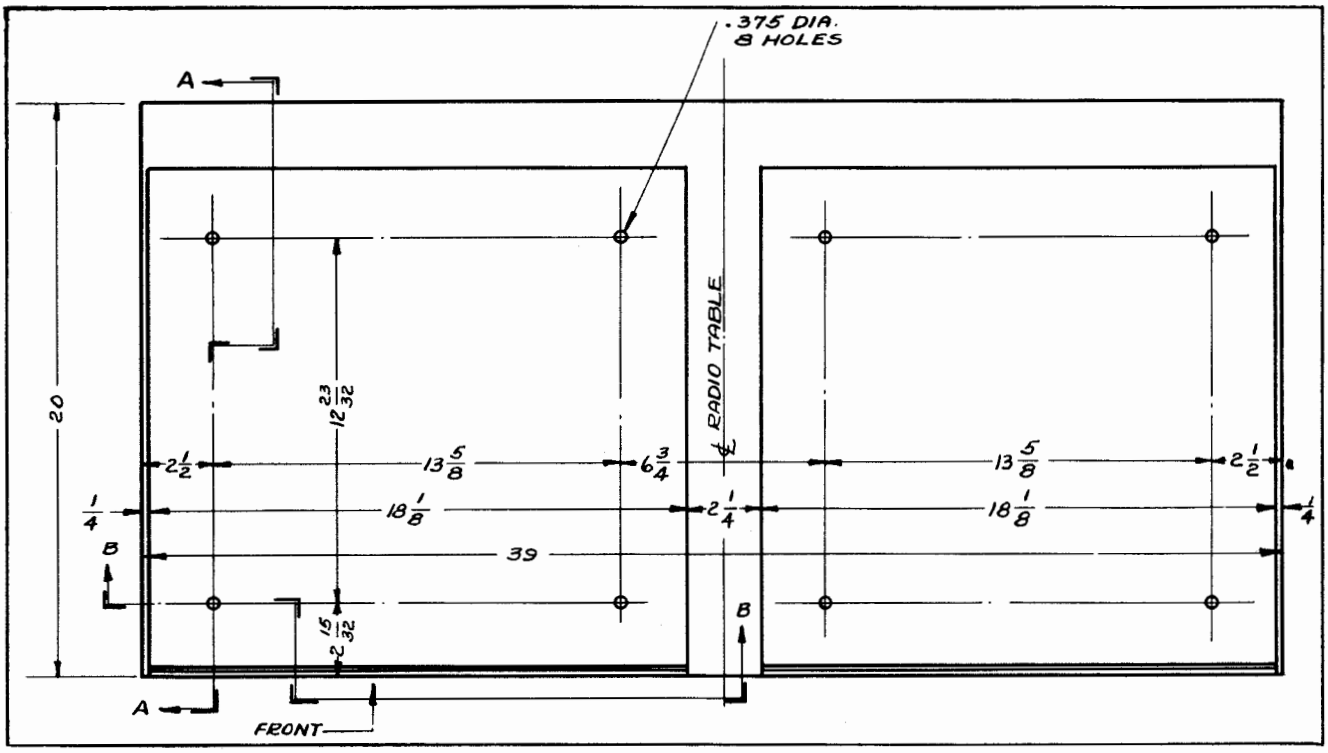


Figure 3-5. RBB/RBC Drilling Plan

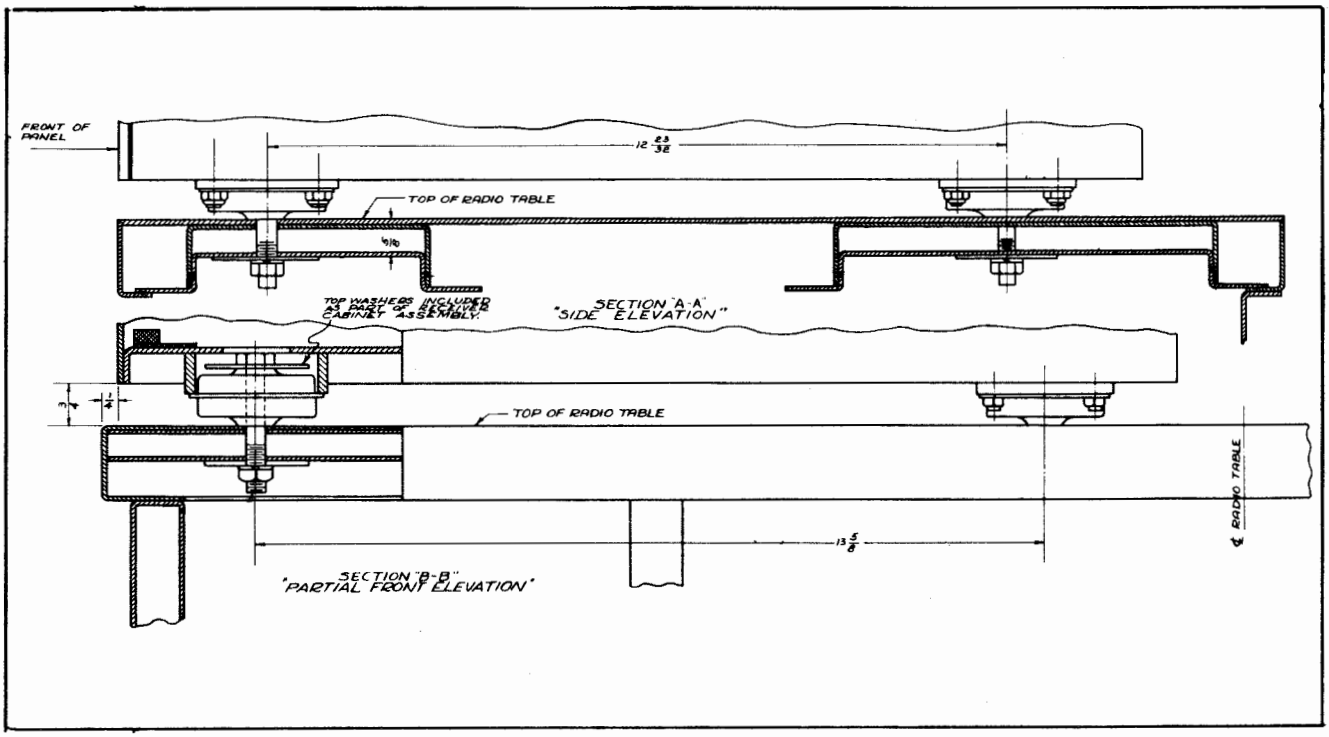


Figure 3-6. Sectioned Mounting Details, from Sections AA and BB on Figure 3-5

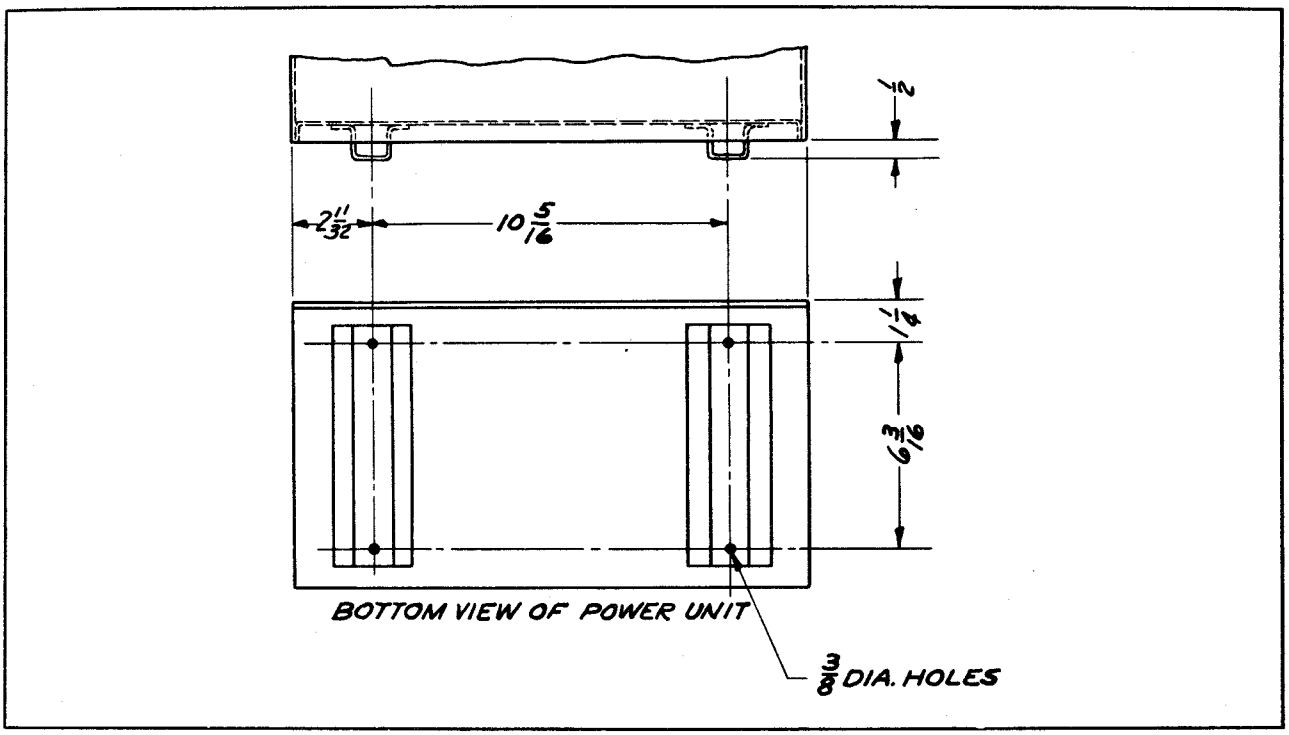


Figure 3-7. Power Unit Drilling Plan, Bottom View

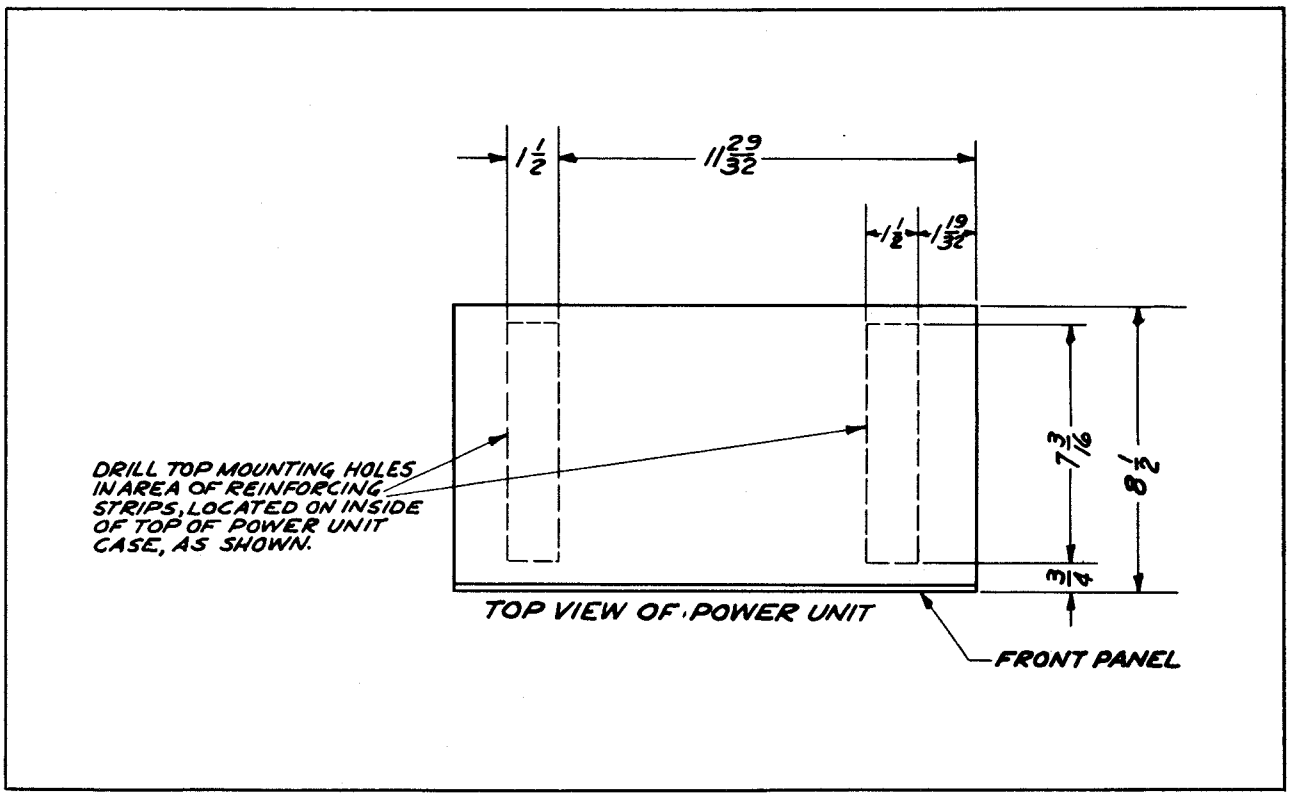


Figure 3-8. Power Unit Drilling Plan, Top View

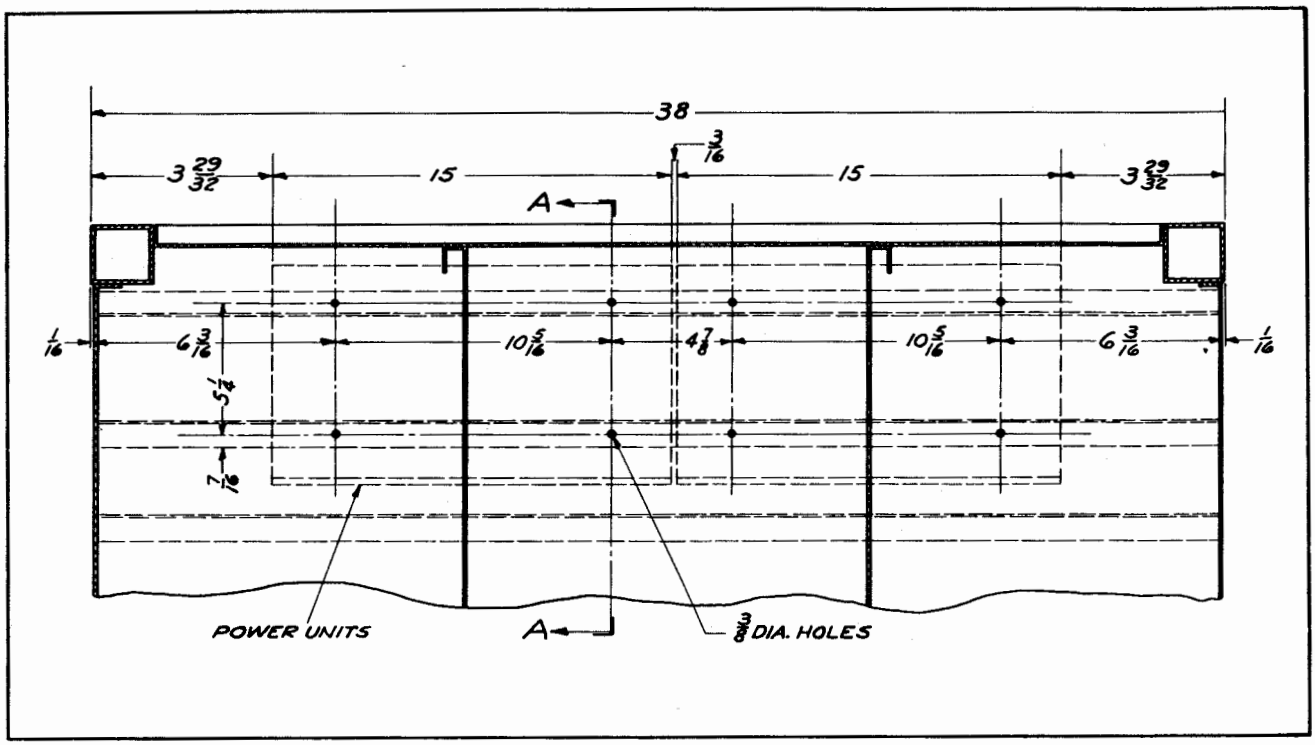


Figure 3-9. Shelf-Drilling Plan for Power Unit

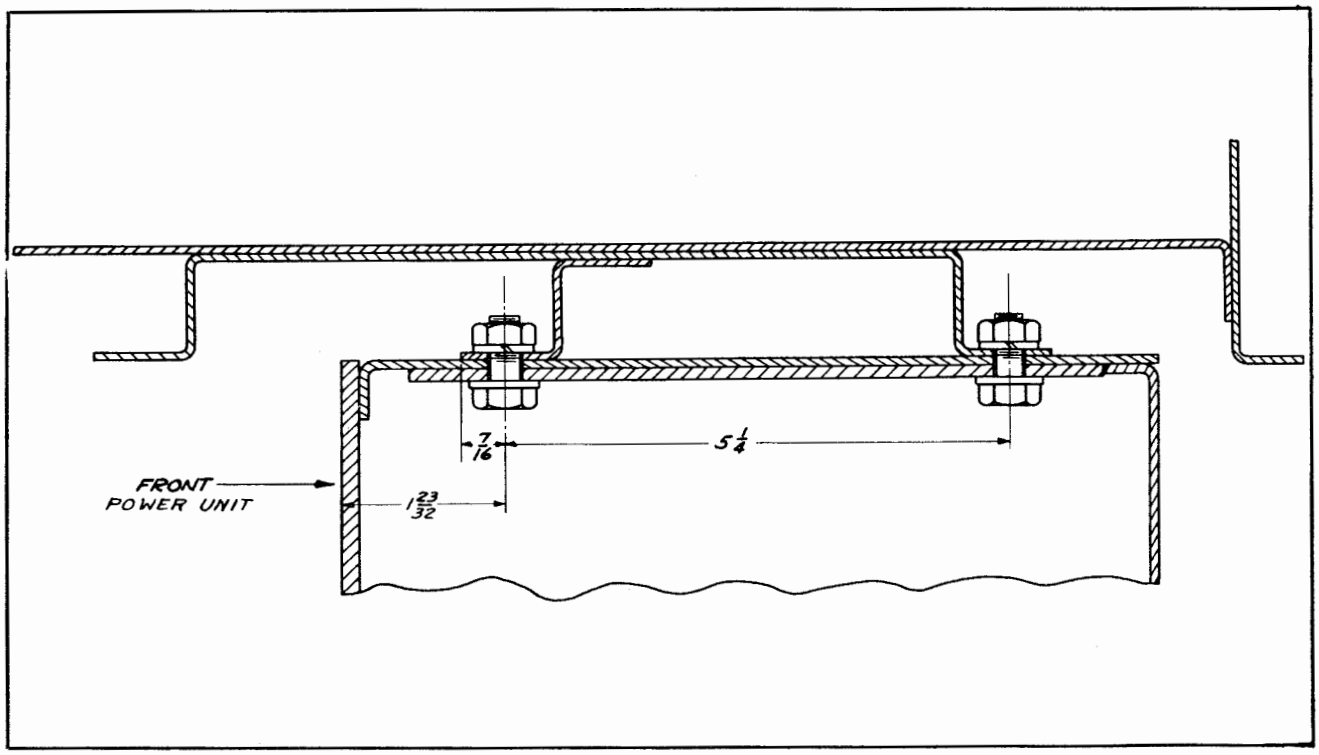


Figure 3-10. Sectioned Mounting Details from Section AA on Figure 3-9

c. LINK CONNECTIONS.—While the power unit and receiver chassis are out of the cases, link connections should be set on the antenna link board in the receiver and on the power unit voltage-tap terminal board.

Referring to Figures 3-11 and 3-12, set the links on receiver terminal board E105 (E209) for the installation conditions. This terminal board is located on the left side of the unit, facing the front, and is accessible by removal of the small cover (2¼" x 2½") over the board.

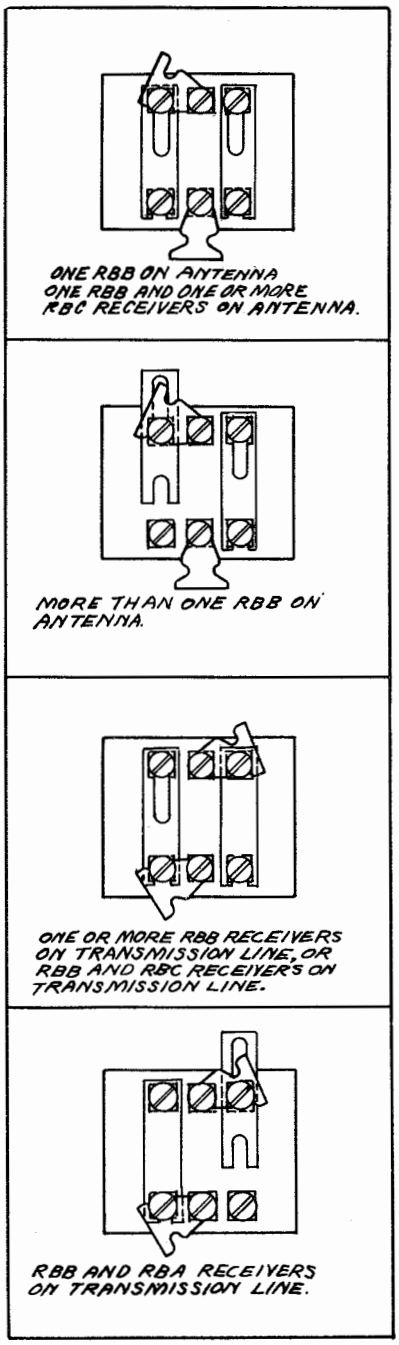


Figure 3-11. RBB Antenna Link Board Connections

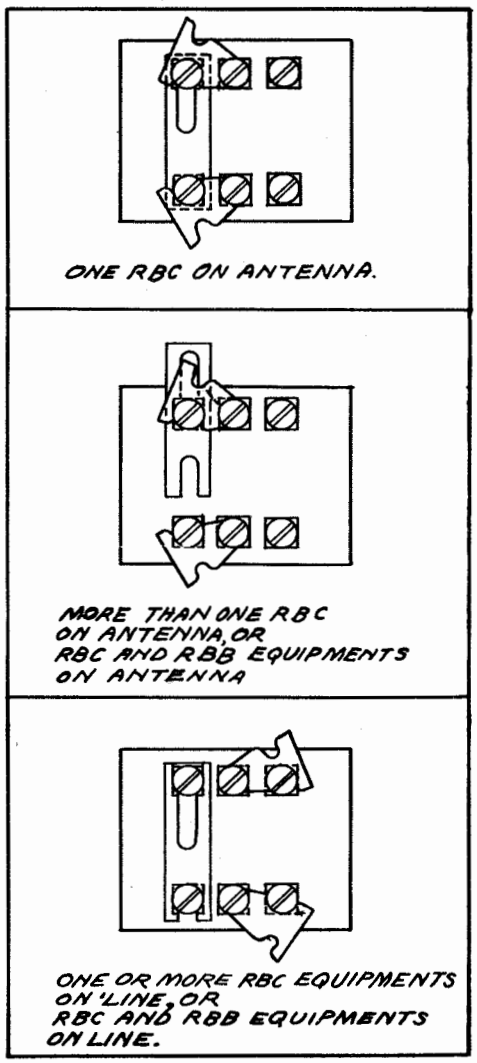


Figure 3-12. RBC Antenna Link Board Connections

Now measure the incoming power supply voltage and set the link on power unit terminal board E405 to the tap value nearest the measured voltage. This terminal board is situated above the chassis at the left, and carries tap designations of 110, 115, and 120 volts.

After setting the links, press each tube firmly in its socket. Place switch S501 in the ON position if a Frequency Shift Converter or Panoramic Adapter is to be operated in conjunction with the receiver. This switch is shown on Figure 3-13. Replace the chassis in their cabinets. Tighten the panel screws to insure proper shielding.

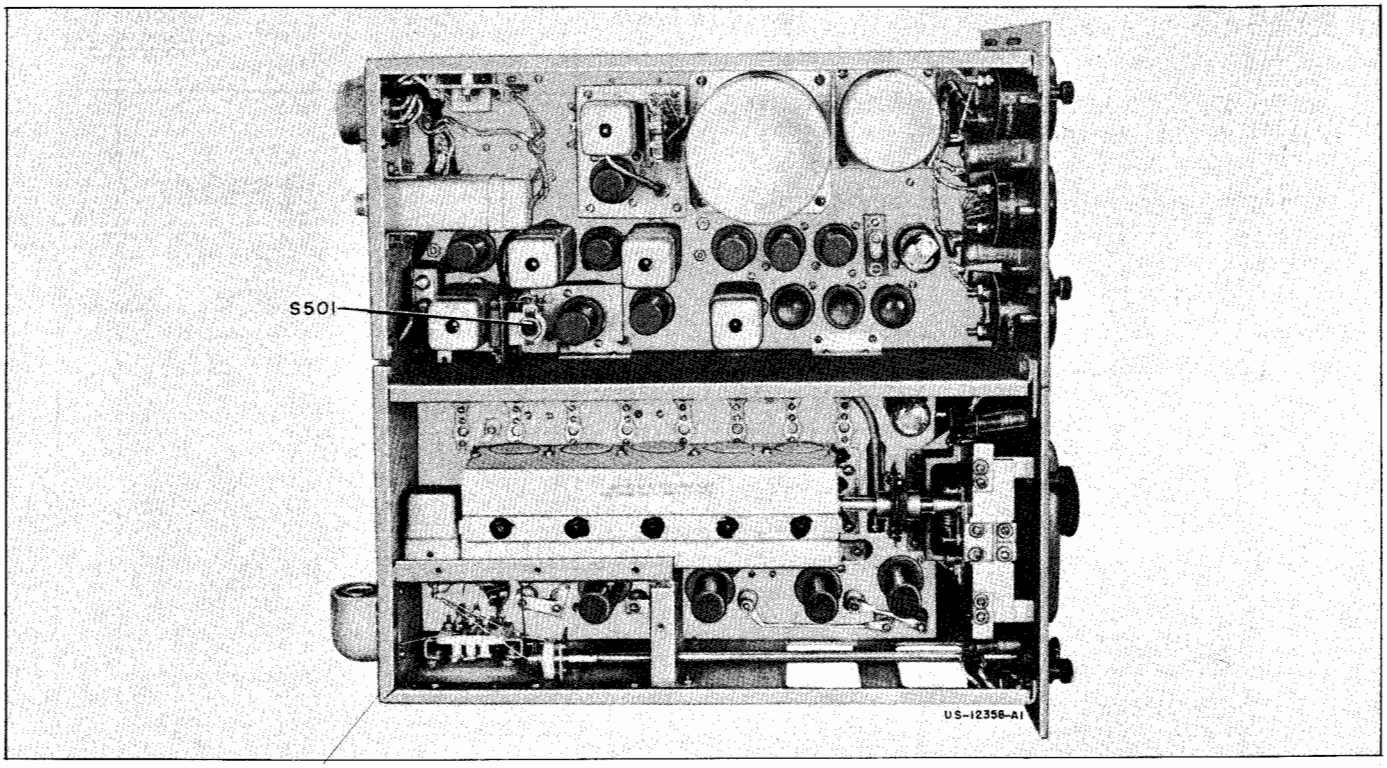


Figure 3-13. Switch S501 for Cathode Follower Stage

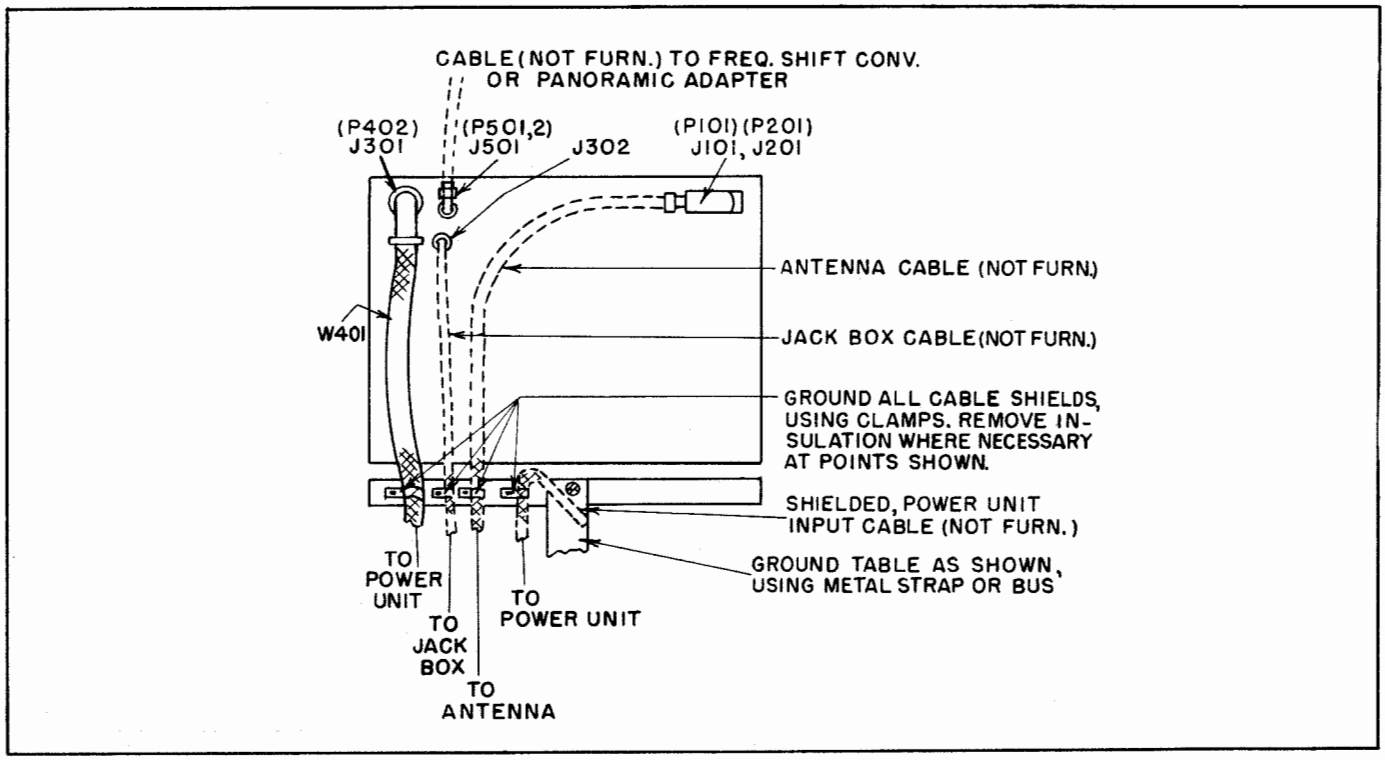


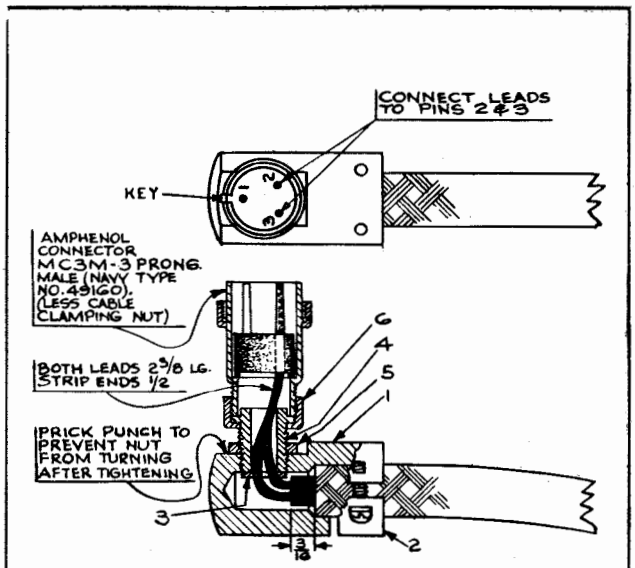
Figure 3-14. Cable Connections at Receiver

d. CABLE CONNECTIONS.—Only one cable type is supplied with the equipment. This cable, CRV-49162-A, interconnects the receiver and power unit, and carries symbol W401 as shown on Figure 3-3. Connectors supplied and cables required are listed in Table 3-1: Figures 3-3 and 3-14 contain cable identification details.

After all cable connections have been made, ground the shelf or table with a copper strap approximately two inches wide. Then ground all cable shields to the table. These grounding details are shown on Figure 3-14. Any paint on the table must be removed at the grounding points.

TABLE 3-1. CABLE CONNECTIONS REQUIRED

CABLE REQUIRED	FURNISHED	REMARKS
Interconnecting cable from receiver to power unit, J301 to J403.	Yes	Cable W401, type CRV-49162-A used. Second cable furnished is for emergency operation of additional receiver from J402. Clamp the cable in place as indicated on Figure 3-14. Be sure to clean paint off table so as to secure a good ground. Cable clamp, screw, lockwasher, and nut are supplied with the power unit. Cover unused receptacle with cover supplied.
Antenna Cable from receptacle J101 (J201).	No	Connect antenna to the receiver by means of concentric line plug P101 (P201). If a single wire feed-type antenna is used, antenna adapter P102 (P202), Navy type 49152, should be inserted into J101 (J201) and the antenna lead-in terminated at the binding post of the adapter.
Input power cable from power source to J401.	No	Plug P401 supplied. Cable should be Navy type MCOS-2. The cable must run to a grounded junction box (not supplied) located near the equipment table. Do not insert power plug P401 into J401 until the installation is complete. See Figure 3-17 for cable details.
Optional cable from phone receptacle J302 to jack box.	No	Plug P301 supplied. Connect J302 to the jack box where used. Jack box and cable are not furnished. When armored phone output cable Navy type TTHFWA-1, is used, adapter P301A is required with phone plug P301. See Figure 3-15 for cable details.
Optional cable from J501 to Frequency Shift Converter or Panoramic Adapter.	No	Plugs P501 and P502 supplied; cable is not furnished. Install angle plug P502 on receiver end of coaxial cable; P501 on other end. Cable type will be governed by auxiliary unit connected.



Remove the cable clamping ring furnished with output plug P301, Navy type 49160.
Strip the ends of the two conductors ½ inch.
Insert the cable into the connector body, part 1, and pull the two conductors through the tapped hole in the body.
Clamp the cable in place with the clamp, part 2. Two machine screws and lockwashers are furnished for this purpose.
Insert the insulating washer, 3, over the two conductors and into the bottom of the tapped hole in the connector body.
Assemble bushing, locknut, coupling nut 4, 5, and 6, and plug 49160. Insert the conductor leads into pins No. 2 and No. 3 as shown.
Before tightening the locknut, 5, note positions of the key and connections. Be sure that the positions agree with the illustration. Tighten the locknut.
Prick-punch the connector body adjacent to the locknut to prevent it from turning.
Solder conductors to pins No. 2 and No. 3.

Figure 3-15. Details, Armored Cable Connections to Jack Box

Installation having been completed, make sure the receiver POWER switch is OFF then connect the power input plug to the power source. Figure 3-16 is the primary power distribution diagram for the RBB/RBC equipment.

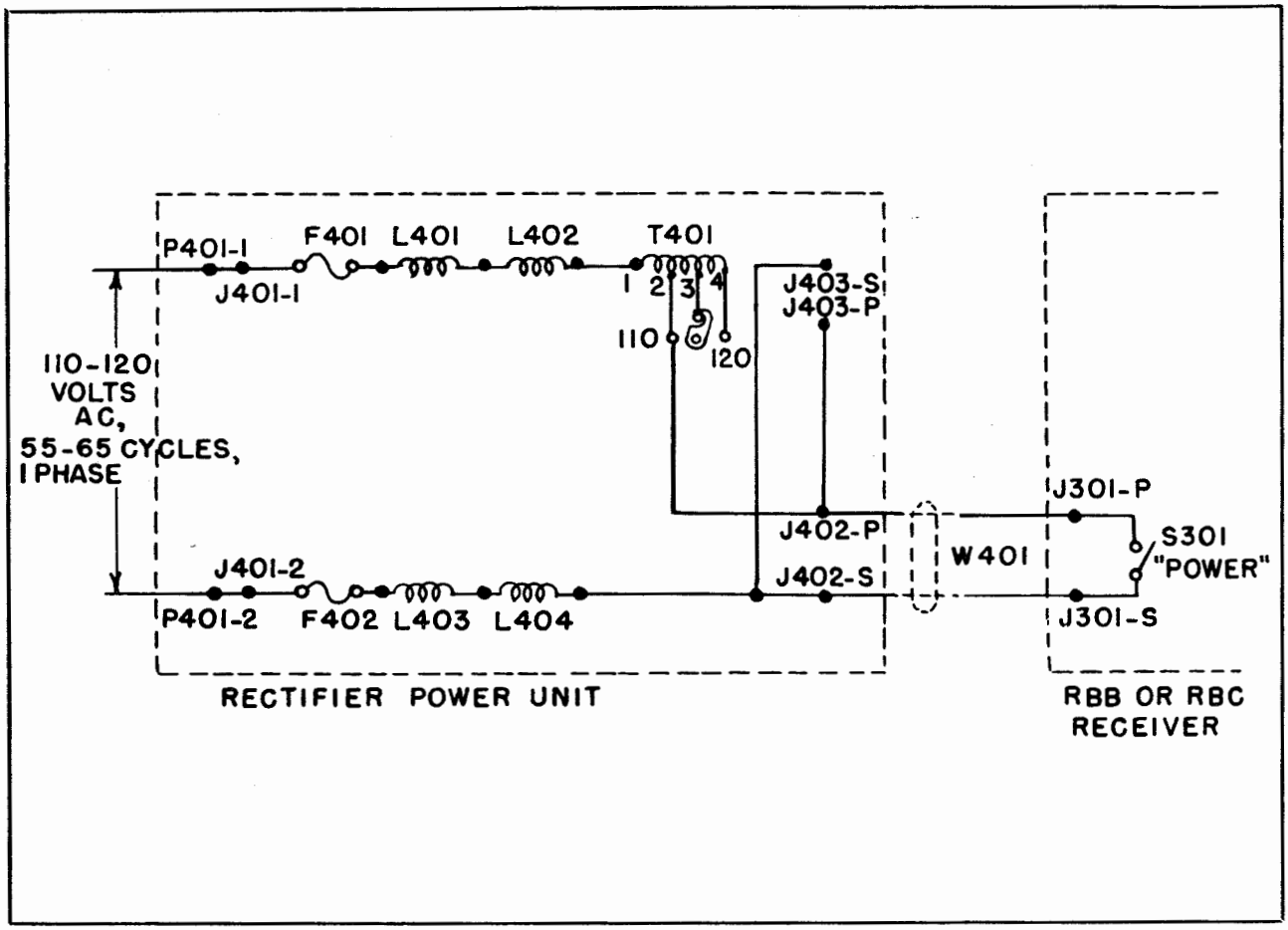


Figure 3-16. Primary Power Distribution Diagram

3. INITIAL ADJUSTMENTS.

Plug a pair of headphones in the PHONES jack. Rotate the following controls to the positions indicated:

CONTROL	*POSITION*
ADD DECIBELS	OFF
RADIO SELECTIVITY	BROAD
OUTPUT LEVEL	Zero
SILENCER	Zero
NOISE LIMITER	ON
GAIN	Zero
RECEPTION	MOD-AVC
AUDIO SELECTIVITY	BROAD
Band Switch	Band selected
Tuning Dial	Frequency of station selected (voice)

Throw the POWER switch to the ON position. The dial lights should glow. If the power unit is operating, the D.C. VOLTS meter should indicate approximately 200 volts.

To receive the station selected, turn the OUTPUT LEVEL knob until background noise is heard. Readjust the tuning knob for the desired station, then adjust the OUTPUT LEVEL control for a comfortable noise level.

Rotate the RADIO SELECTIVITY control to MEDIUM. A decrease in noise level should result. Turning the tuning knob to either side of a station's frequency should result in a decrease in the reading on the INPUT meter.

To adjust the INPUT meter so that it will indicate the approximate signal input in decibels above one microvolt, operate the RADIO SELECTIVITY knob to SHARP. Tune the receiver until it is past a station, so that no signal is heard. Adjust the ZERO SET control for zero meter reading. The INPUT METER will now indicate as desired.

Place the RADIO SELECTIVITY switch in the BROAD position. In succession pick up stations on each of the tuning bands, to check that operation on all four tuning bands is satisfactory. The OUTPUT meter should indicate the signal level when the ADD DECIBELS switch is rotated.

When a station is being received where intermittent noise bursts are audible, keeping the NOISE LIMITER switch in the ON position should serve to limit the noise peaks.

Turn the RECEPTION switch to MOD-AVC-SIL. This position will be used to check operation of the receiver when receiving distant stations, as well as functioning of the silencer circuits.

Tune the receiver to a station whose signal can hardly be heard above the noise level. Rotate the SILENCER knob slowly clockwise. Noise should gradually decrease, until only the signal is heard. For a station operating intermittently, the noise level should not rise when the station ceases transmission.

To check operation for mcw signal reception, turn the RECEPTION switch to MOD, and tune in an appropriate station. Noise level should be reduced when the AUDIO SELECTIVITY switch is thrown to SHARP. Further improvement should be noted when the RADIO SELECTIVITY control is turned to MEDIUM or SHARP. Finally place the latter two switches at BROAD.

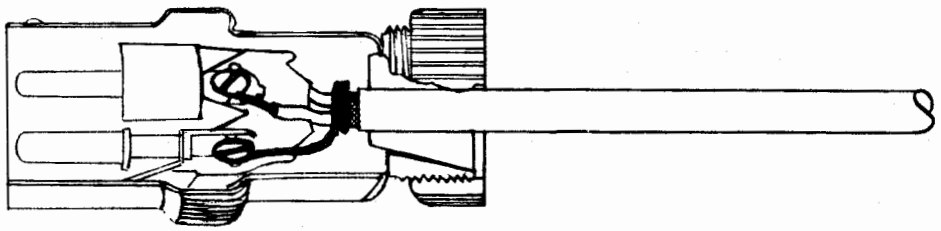
Cw reception is checked when the RECEPTION switch is turned to CW. Tune in a cw station and adjust the GAIN control for a satisfactory level of reception.

Rotate the FREQUENCY VERNIER knob, noting whether the pitch of the note is varied, as it should be.

Throw the AUDIO SELECTIVITY switch to SHARP. Noticeable improvement in signal quality should be apparent.

Where operation of a Frequency Shift Converter or a Panoramic Adapter is contemplated from the RBB/RBC equipment, the RADIO SELECTIVITY control should be set to the BROAD position. Check the cathode follower stage in the RBB/RBC unit by operating the converter or adapter unit.

If the preceding tests have been satisfactory, throw the POWER switch to OFF. The receiver may now be placed in operation. Any deviation from normal response requires correction as detailed in Section 7, Corrective Maintenance.



To assemble MCOS-2 cable to P401, proceed as follows:

1. Remove end cap from P401, then remove two screws from sides of P401 body and disassemble.
2. Insert end of MCOS-2 cable through end cap of P401.
3. Strip approximately two inches of outer sheath from cable end.
4. Using short length of No. 18 flexible wire, wrap two or three turns around exposed copper braid near body of cable and solder to the braid.
5. Strip copper braid from end of cable, to point where wire is soldered to it then remove rubber insulation from end of separate conductors.
6. Strip ½-inch insulation from end of each conductor. Tin the exposed wires. Attach one of these wires to one small diameter contact in body of P401 by screw on that contact. Attach other wire to other small diameter contact.
7. Leaving no slack, attach the third wire (soldered to braid in step 4) to large diameter contact. Cut off excess wire.
8. Reassemble body of P401, replace screws removed in step 1, then replace cap removed in step 1.

Figure 3-17. Details, MCOS-2 Cable Assembly

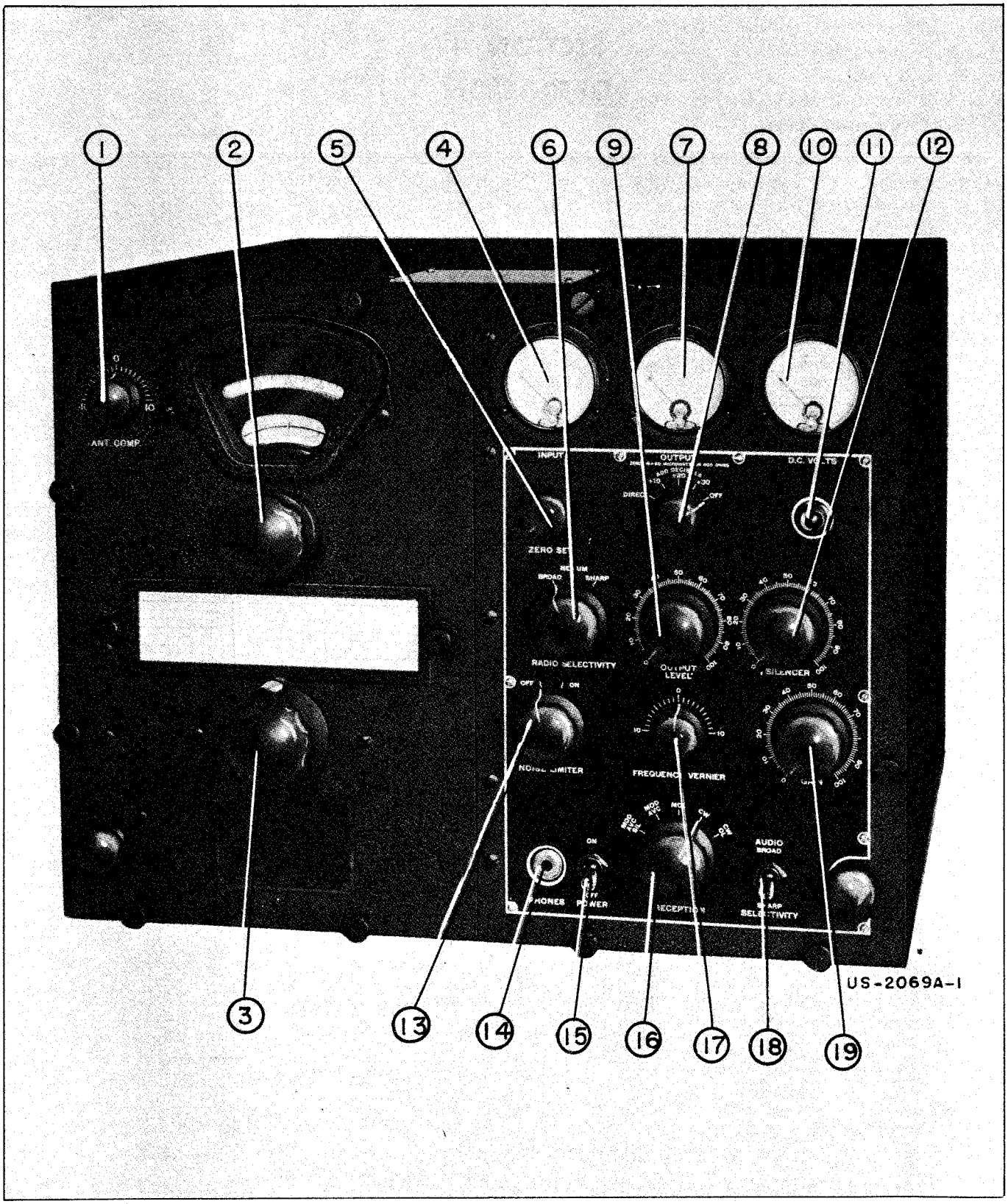


Figure 4-1. RBB/RBC Receivers, Front View

SECTION 4
OPERATION

1. ROUTINE OPERATION.

Four tuning bands in the RBB and RBC units cover frequency ranges as follows:

RBB—0.50 to 4 megacycles
RBC—4 to 27 megacycles

With the exception of the frequency range, operation is identical for both models.

Features in the RBB/RBC unit include control of overall sensitivity and selectivity, choice of agc, silencer and noise limiter circuits, and control of audio response. These featuers are utilized in varying combinations and degrees depending on local conditions and whether voice, mcw, or cw transmission is being received. In general, the RECEPTION switch controls selection of the specialized circuits. The various panel components and their purpose are listed in Table 4-1. Numbers in Table 4-1 refer to items similarly numbered on the RBB/RBC panel view, Figure 4-1.

For proper operation of the RBB/RBC receiver the significance of each panel component in Table 4-1 should be clearly understood. Of the items listed, only five controls are operative in (or have functions applicable to) certain receiving conditions as selected by the RECEPTION switch. Particular note should be made of these five controls; items 9, 12, 17, 18, and 19 in Table 4-1.

In any emergency, where one Rectifier Power Unit fails as part of a two-unit arrangement, it is possible to operate two receivers from the one operative power unit. To effect the emergency arrangement, disconnect the output cable from the disabled power unit. Remove the receptacle cap from the unused output

TABLE 4-1. RBB/RBC PANEL COMPONENT IDENTIFICATION

NO. (FIG. 4-1)	COMPONENT	FUNCTION
1	ANT COMP capacitor	Facilitates reception of distant stations. Should be readjusted on each band for difficult receiving conditions, as specified in operating instructions.
2	Band change switch	Selects choice of bands as follows: *RBB* *RBC* 1. 0.50-0.84 mc 4.00- 6.45 mc 2. 0.84-1.41 mc 6.45-10.30 mc 3. 1.41-2.37 mc 10.30-16.50 mc 4. 2.37-4.00 mc 16.50-27.00 mc
3	Tuning control	Selects frequency desired.
4	INPUT meter	Facilitates tuning by indicating input signal strength, but only when agc is selected.
5	ZERO SET control	Requires no adjustment during operation. Setting specified in Section 3, paragraph 3.

TABLE 4-1.—(Continued)

NO. (FIG. 4-1)	COMPONENT	FUNCTION
6	RADIO SELECTIVITY switch	Controls selectivity in i-f stages. Setting should be at BROAD unless excessive noise requires MEDIUM or SHARP position. Operation of auxiliary equipment such as Frequency Shift Converter requires BROAD setting.
7	OUTPUT meter	Indicates output in decibels. Not required during operation.
8	ADD DECIBELS switch	Connects OUTPUT meter and adjusts for varying levels during test and maintenance.
9	OUTPUT LEVEL control	Functions to control audio level when agc is selected and when output limiting (O. L.) is used during cw reception. Inoperative under other conditions. Substitutes for GAIN control.
10	D.C. VOLTS meter	Indicates presence of plate voltage, approximately 200 volts, and thus whether power unit is operating.
11	Panel light	Illumination, and indirectly as indication of tube heater voltage.
12	SILENCER control	Adjusts silencer circuit to quiet receiver during intermittent transmission by cutting off all signals below the level selected. Operative only in MOD-AVC-SIL position of RECEPTION switch.
13	NOISE LIMITER switch	Limits noise by blocking reception during noise peaks.
14	PHONES jack	For connecting headphones.
15	POWER switch	Controls input power to Rectifier Power Unit.
16	RECEPTION switch	Five switch positions are: MOD-AVC-SIL—For voice reception. Includes agc and silencer circuit. MOD-AVC— For voice reception. Includes agc. MOD— For mcw (tone) reception, although restricted voice reception is possible. CW— For cw reception. CW-O. L.— For cw reception. Includes output limiting action, which cuts off all inputs below the level selected by OUTPUT LEVEL control.
17	FREQUENCY VERNIER control	Adjusts pitch of cw note.
18	AUDIO SELECTIVITY	Used in SHARP position for restricted cw or mcw audio response. Otherwise used in BROAD position.
19	GAIN	Controls sensitivity when agc is not used; otherwise inoperative. Substitutes for OUTPUT LEVEL control.

TABLE 4-2. OPERATING INSTRUCTIONS

SEQUENCE	CONTROL AND POSITION	VOICE	MCW	CW	REMARKS
	STARTING THE EQUIPMENT				
1	ADD DECIBELS to OFF	x	x	x	
2	RADIO SELECTIVITY to BROAD	x	x	x	
3	OUTPUT LEVEL to zero	x		x	
4	SILENCER to zero	x		x	
5	NOISE LIMITER to ON	x	x	x	
6	GAIN to zero		x	x	
7	AUDIO SELECTIVITY to BROAD	x	x	x	
8	RECEPTION: MOD-AVC-SIL MOD-AVC MOD CW CW-OL	x x	 x	 x x	For excessive interference or for intermittent reception. For local reception. Voice reception also possible. For excessive interference.
9	Band Switch to proper band	x	x	x	
10	POWER switch to ON	x	x	x	
	OPERATING THE EQUIPMENT				
11	OUTPUT LEVEL	x			Rotate until background noise is heard.
12	Tuning knob to station	x			INPUT meter deflection should be maximum.
13	OUTPUT LEVEL	x			Readjust for desired level. For excessive noise, turn RADIO SELECTIVITY switch to MEDIUM. Retune as necessary. For distant stations use MOD-AVC-SIL setting of RECEPTION switch. After station is tuned in, turn up SILENCER control until noise disappears. Retune as necessary. Setting of the SILENCER control is critical: a division or two on the dial may cause loss of reception.
14	GAIN control		x		Rotate until background noise is heard.
15	Tuning knob to station		x		
16	GAIN control		x		Readjust for desired level. For excessive interference turn RADIO SELECTIVITY knob to MEDIUM or SHARP. Retune as necessary. For excessive noise, throw AUDIO SELECTIVITY switch to SHARP.
17	GAIN control			x	Rotate until background noise is heard.
18	Tuning knob to station			x	
19	GAIN control			x	Readjust for desired level.
20	FREQUENCY VERNIER			x	Adjust for loudest signal.
21	AUDIO SELECTIVITY to SHARP			x	
22	FREQUENCY VERNIER			x	Readjust for loudest signal. For excessive fading, use CW-OL setting of RECEPTION switch. Set OUTPUT LEVEL control to 100. Turn up GAIN until weak signal is heard. Decrease OUTPUT LEVEL setting until volume of signal begins to decrease. Leave control in that position.
23	ANT. COMP	x	x	x	For best distance reception on each band, tune in a signal at the extreme high-frequency end of the band and adjust the ANT. COMP. knob for greatest volume. If no signal is available, set the tuning dial at 860 for the RBB or at 870 for the RBC, and adjust for maximum noise output.
	STOPPING THE EQUIPMENT				
24	POWER switch to OFF	x	x	x	

receptacle of the other power supply. Then plug the cable into this receptacle. Closing the POWER switch on either receiver will energize the power unit. Conversely, both switches must be at OFF to deenergize the power unit.

Where a Frequency Shift Converter or a Panoramic Adapter is coupled to the RBB or RBC receiver, the r-f from the receiver will be fed to the auxiliary units whenever the receiver is in operation. For prolonged periods when the receiver alone is in use, without the converter or adapter, it is advisable to open the heater circuit of the cathode follower stage. To accomplish this, open the POWER switch. Loosen the captive thumbscrews located around the edge of the panel. Take hold of the round pull-knobs provided on the front panel and partially withdraw the chassis until it strikes the stops on the sides of the chassis. Referring to Figure 3-13 in Section 3, operate S501 to the OFF position. Slide the chassis back into its case and tighten the panel screws.

SECTION 5

OPERATOR'S MAINTENANCE

1. ROUTINE CHECK CHARTS.

TABLE 5-1. ROUTINE CHECK CHART—DAILY

WHAT TO CHECK	HOW TO CHECK	COMMENTS
Heater voltage from Rectifier Power Unit.	Operate POWER switch to ON.	Glowing of pilot light indicates presence of tube heater voltage. If none, check fuses as described under paragraph 2, "Emergency Maintenance," in this section.
Plate voltage.	Read voltage on D.C. VOLTS meter.	Reading of approximately 200 volts is normal. If other than this value, refer to maintenance notes in Section 7. If no reading, check tubes and fuses as described under paragraph 2, "Emergency Maintenance," in this section.
Voice, cw, and mcw reception.	In succession, rotate RECEPTION switch to each of the five positions.	Check operation by background noise or station reception. INPUT meter should indicate signal level in MOD-AVC and MOD-AVC-SIL positions.
Silencer circuit.	Rotate RECEPTION switch to MOD-AVC-SIL. Vary position of SILENCER control.	Effect of silencer circuit on reception should be apparent. If no response, check tubes V308 and V309.
Noise limiter circuit.	Operate NOISE LIMITER switch to OFF, then ON.	Noise reduction should be apparent. If not, check V306.
Output limiter circuit.	Operate RECEPTION switch to CW-O. L. then back to CW.	Signal stability should be good in CW-O. L. position. If no difference is noted check V306, V308, and V309.
CW oscillator circuit.	Operate RECEPTION switch to CW position.	If no cw note can be received, check V304.
Cathode follower circuit.	Operate Frequency Shift Converter or Panoramic Adapter if part of installation.	If switch S501 is ON and Converter or Adapter are not operating, check V501.

2. EMERGENCY MAINTENANCE.

a. NOTICE TO OPERATORS.

Notice to Operators

Operators shall not perform any of the following emergency maintenance procedures without proper authorization.

b. REPLACEMENT OF TUBES AND FUSES.

(1) PROBABLE FUSE FAILURE.

WARNING

Never replace a fuse with one of higher rating unless continued operation is more important than probable damage. If a fuse burns out immediately after replacement, do not replace it a second time until the cause has been corrected.

If the power unit is not operating, as evidenced by failure in the first two steps of Table 5-1, check both fuses in the power unit. These fuses are accessible on the front panel of the power unit. Both fuses, F401 and F402, have a 3-ampere, 250-volt rating.

(2) TUBE LOCATIONS.—Locations of the tubes in the RBB and RBC receivers are indicated and identified on Figures 5-1 and 5-2, respectively. Tubes in the Rectifier Power Unit are identified on Figure 5-3.

(3) REPLACING ELECTRON TUBES.—Only two tubes require special removal instructions due to inaccessibility. Tube V101 (or V201) can be removed by taking off the shield on the first r-f compartment. The gas-filled type 991 tube, V105 (or V205), is located inside the shield indicated. To remove this tube, pull off the shield cover. The 991 tube can then be removed by the usual method employed for bayonet-type bases.

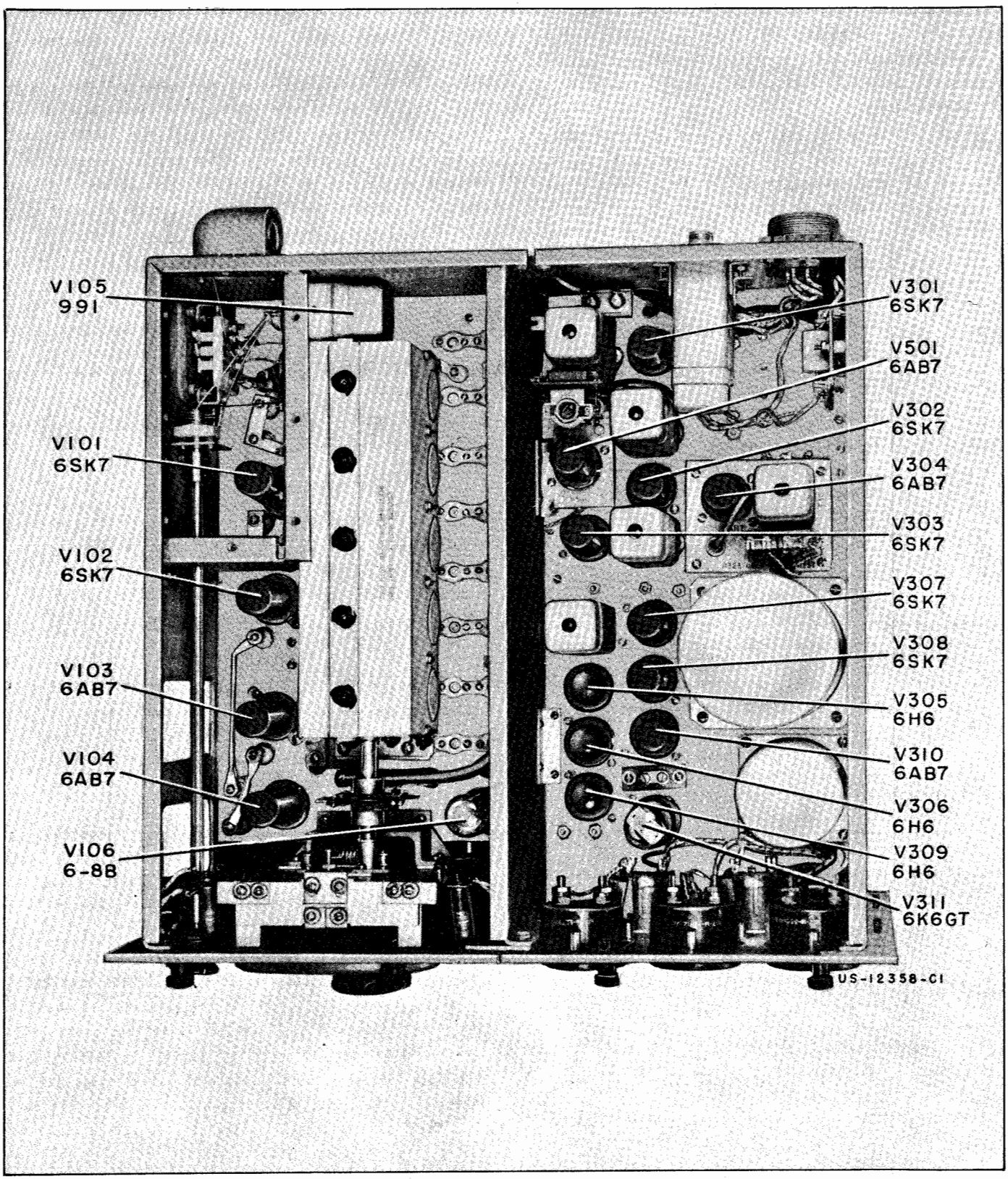


Figure 5-1. Tube Locations, RBB

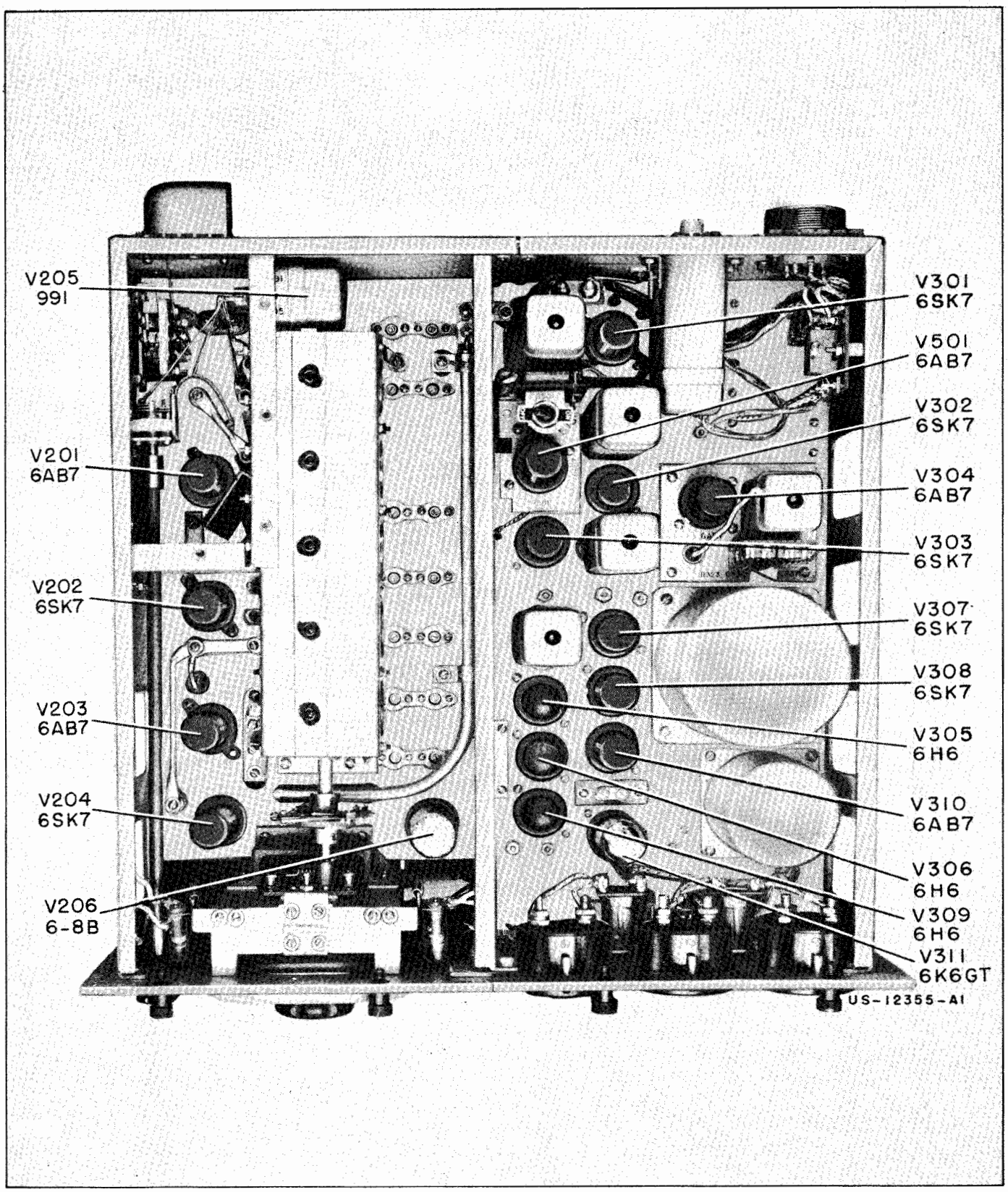


Figure 5-2. Tube Locations, RBC

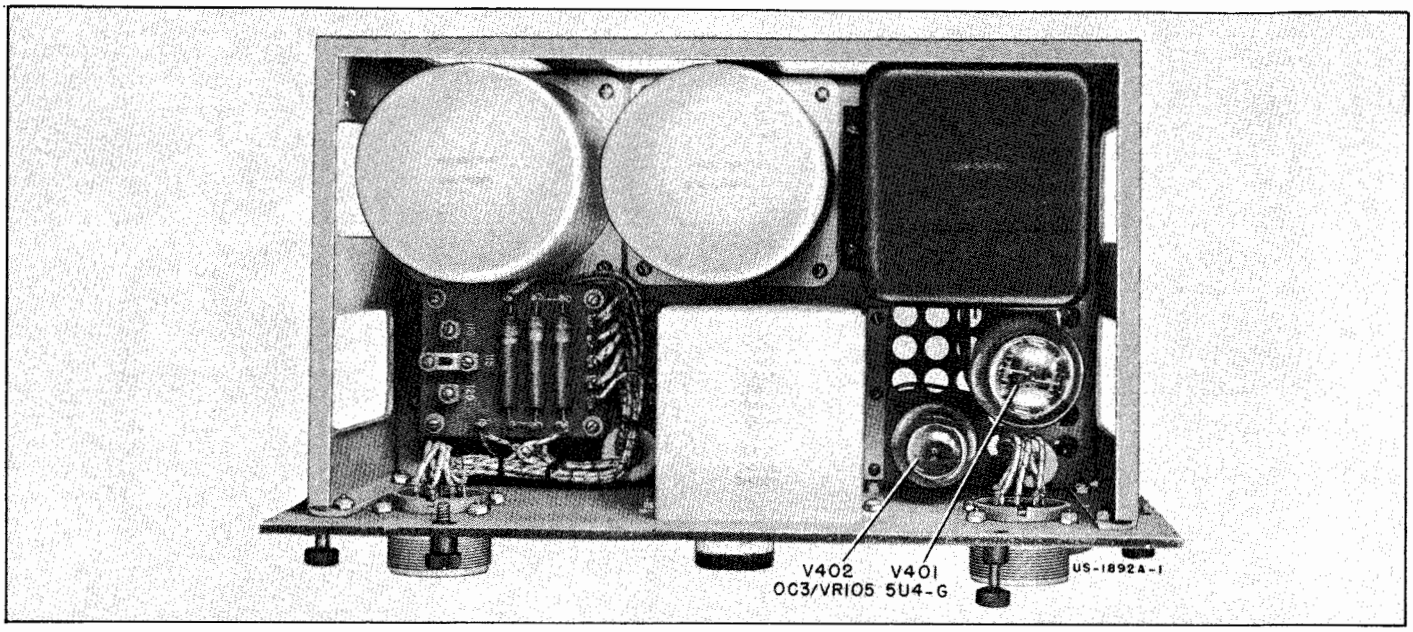


Figure 5-3. Tube Locations, Power Unit

SECTION 6
PREVENTIVE MAINTENANCE

1. ROUTINE MAINTENANCE CHECK CHART.

Note

The attention of maintenance personnel is invited to the requirements of Chapter 67 of the Bureau of Ships Manual, of the latest issue.

2. LUBRICATION

The shaft of the ganged tuning capacitor, C149 (C257), should be lubricated annually, and is the only point requiring periodic lubrication as shown on Figure 6-1.

TABLE 6-1. ROUTINE MAINTENANCE CHECK CHART

WHAT TO CHECK	HOW TO CHECK	COMMENTS
M-O-N-T-H-L-Y		
Cables and connectors.	Inspect.	Note any damage that might cause trouble, particularly damage to coaxial leads. Check connectors for broken or loose pins. Remove any foreign matter between connector pins or holes, using air blast, carbon tetrachloride, or small brush.
Terminal board connections.	Inspect.	Tighten any loose connections or mounting screws.
Knobs.	Inspect.	Tighten any loose set-screws.
Chassis.	Inspect for charred insulation or an area of discolored metal.	Check circuit or adjacent components for cause.
Resistors and capacitors.	Inspect for spots, discoloration, or leakage.	Check component value and circuit involved.
Q-U-A-R-T-E-R-L-Y		
Tubes.	Check in transconductance tester if possible.	Replace any tube registering below normal. Remove tubes one at a time when testing to insure replacement in same socket. This will avoid possibility of disturbing circuit alignment.
Spare tubes.	Check condition.	Replace if defective.
Spare parts.	Check quantity.	Order as necessary to bring stock to proper level.

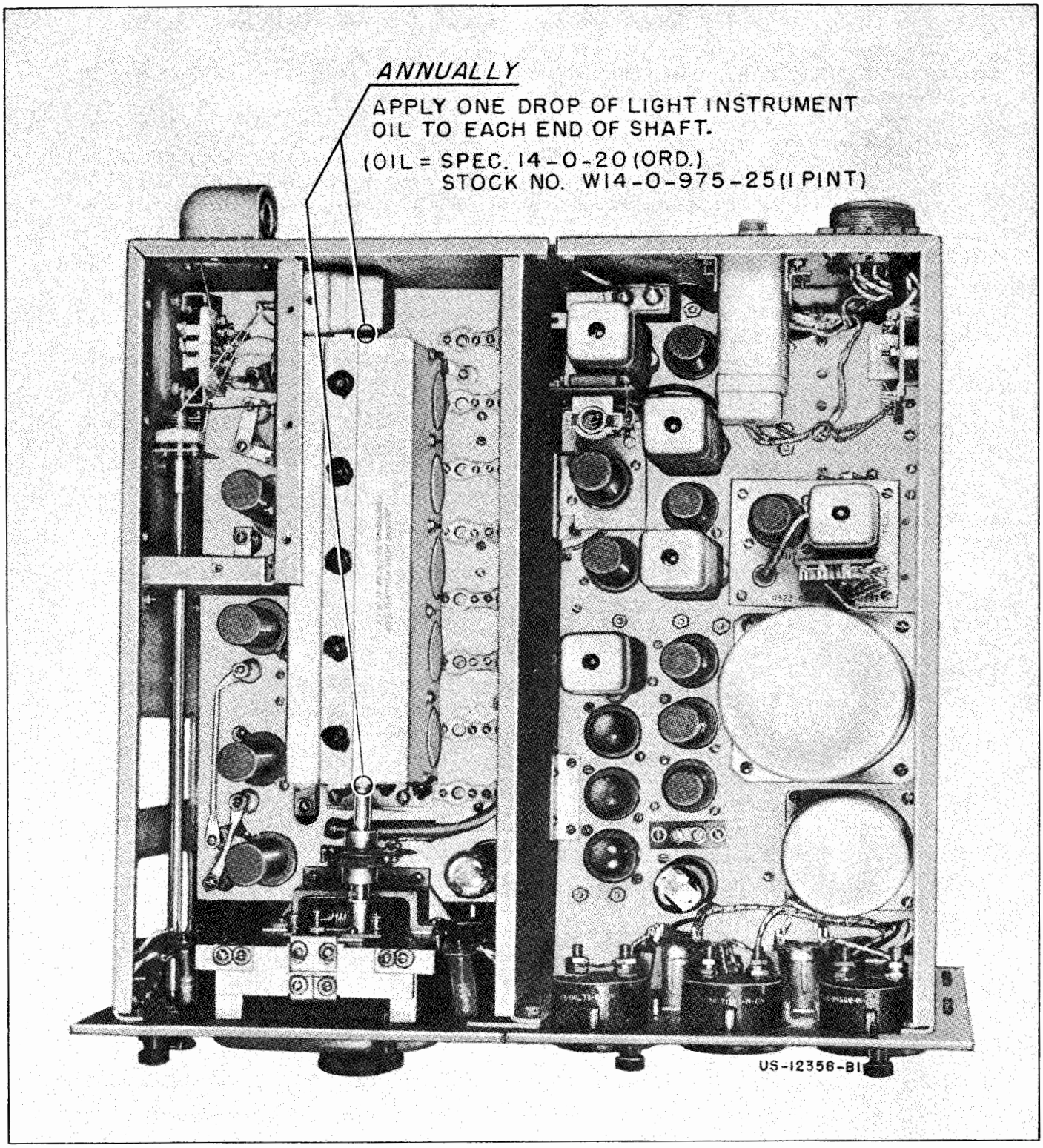


Figure 6-1. Lubrication Data, RBB/RBC

FAILURE REPORTS

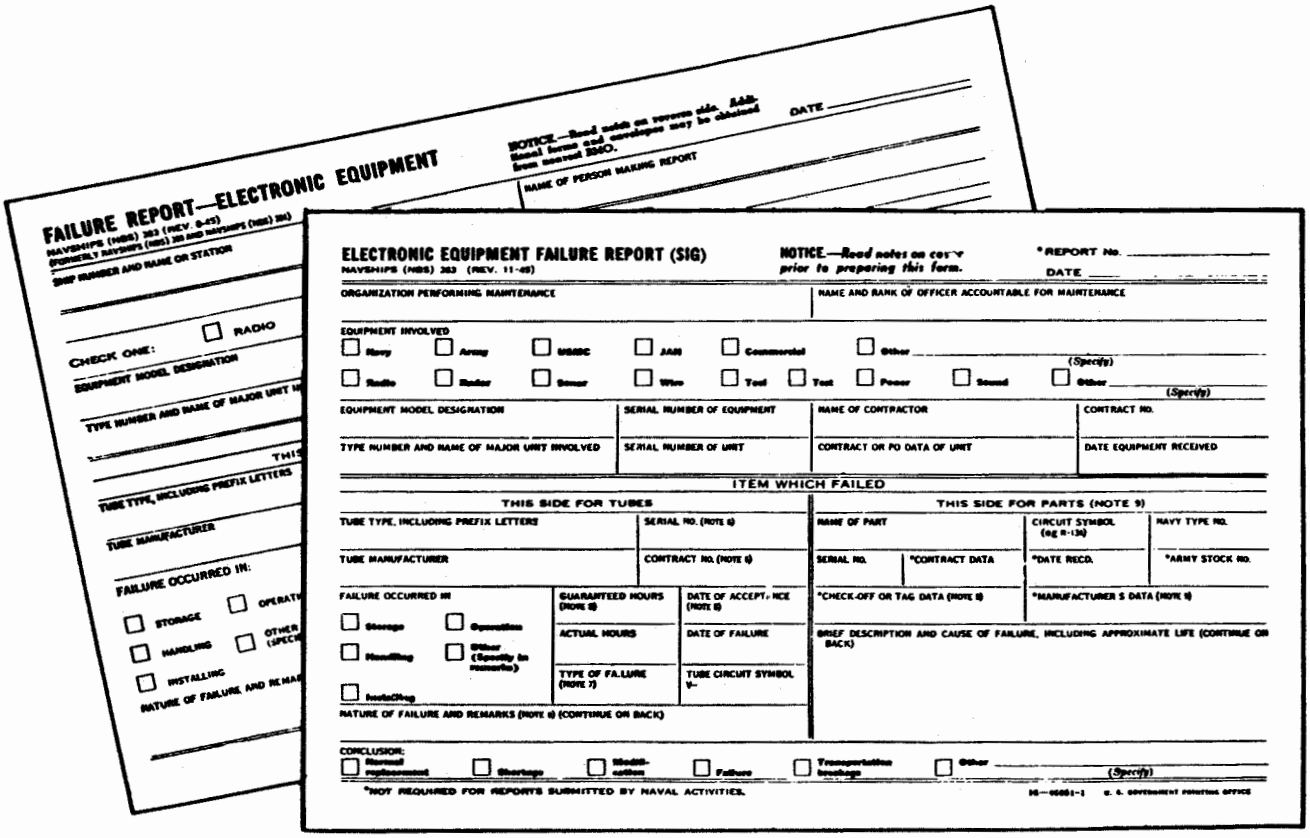
A FAILURE REPORT must be filled out for the failure of any part of the equipment whether caused by defective or worn parts, improper operation, or external influences. It should be made on Failure Report, form NBS-383, which has been designed to simplify this requirement. The card must be filled out and forwarded to BUSHIPS in the franked envelope which is provided. Full instructions are to be found on each card.

Use great care in filling the card out to make certain it carries adequate information. For example, under "Circuit Symbol" use the proper circuit identification taken from the schematic drawings, such as T-803, in the case of a transformer, or R-207, for a resistor. Do not substitute brevity for clarity. Use the back of the card to completely describe the cause of failure and attach an extra piece of paper if necessary.

The purpose of this report is to inform BUSHIPS of the cause and rate of failures. The information is used by the Bureau in the design of future equipment and in the maintenance of adequate supplies to keep the present equipment going. The cards you send in, together with those from hundreds of other ships, furnish a store of information permitting the Bureau to keep in touch with the performance of the equipment of your ship and all other ships of the Navy.

This report is not a requisition. You must request the replacement of parts through your Officer-in-Charge in the usual manner.

Make certain you have a supply of Failure Report cards and envelopes on board. They may be obtained from any Electronics Officer.



FAILURE REPORT—ELECTRONIC EQUIPMENT

NOTICE—Read notes on reverse side. Additional forms and envelopes may be obtained from nearest SOAO.

DATE

NAME OF PERSON MAKING REPORT

SHIP NUMBER AND NAME OR STATION

CHECK ONE: RADIO

EQUIPMENT MODEL DESIGNATION

TYPE NUMBER AND NAME OF MAJOR UNIT

THIS

TUBE TYPE, INCLUDING PREFIX LETTERS

TUBE MANUFACTURER

FAILURE OCCURRED IN:

STORAGE OPERATI

HANDLING OTHER (SPECI

INSTALLING

NATURE OF FAILURE AND REMA

ELECTRONIC EQUIPMENT FAILURE REPORT (SIG)

NAVSHIPS (NBS) 383 (REV. 11-48)

NOTICE—Read notes on cover prior to preparing this form.

*REPORT No.

DATE

ORGANIZATION PERFORMING MAINTENANCE

NAME AND RANK OF OFFICER ACCOUNTABLE FOR MAINTENANCE

EQUIPMENT INVOLVED

Navy Army USMC AAF Commercial Other (Specify)

Radio Radar Sonar Wire Test Test Power Sound Other (Specify)

EQUIPMENT MODEL DESIGNATION | SERIAL NUMBER OF EQUIPMENT | NAME OF CONTRACTOR | CONTRACT NO.

TYPE NUMBER AND NAME OF MAJOR UNIT INVOLVED | SERIAL NUMBER OF UNIT | CONTRACT OR PO DATA OF UNIT | DATE EQUIPMENT RECEIVED

ITEM WHICH FAILED

THIS SIDE FOR TUBES

TUBE TYPE, INCLUDING PREFIX LETTERS | SERIAL NO. (NOTE 6)

TUBE MANUFACTURER | CONTRACT NO. (NOTE 6)

FAILURE OCCURRED IN: Storage Operation Handling Other (Specify in remarks) Installing

GUARANTEED HOURS (NOTE 8) | DATE OF ACCEPTANCE (NOTE 8)

ACTUAL HOURS | DATE OF FAILURE

TYPE OF FAILURE (NOTE 7) | TUBE CIRCUIT SYMBOL V-

NATURE OF FAILURE AND REMARKS (NOTE 6) (CONTINUE ON BACK)

THIS SIDE FOR PARTS (NOTE 9)

NAME OF PART | CIRCUIT SYMBOL (eg R-13) | NAVY TYPE NO.

SERIAL NO. | *CONTRACT DATA | *DATE RECD. | *ARMY STOCK NO.

*CHECK-OFF OR TAG DATA (NOTE 8) | *MANUFACTURER'S DATA (NOTE 8)

BRIEF DESCRIPTION AND CAUSE OF FAILURE, INCLUDING APPROXIMATE LIFE (CONTINUE ON BACK)

CONCLUSION: Normal replacement Shortage Modification Failure Transportation breakage Other (Specify)

*NOT REQUIRED FOR REPORTS SUBMITTED BY NAVAL ACTIVITIES.

16—66801-1 U. S. GOVERNMENT PRINTING OFFICE

Figure 7-1. Failure Report

SECTION 7

CORRECTIVE MAINTENANCE

1. TROUBLE SYMPTOMS AND CIRCUIT ANALYSIS.

First step in servicing of the RBB/RBC equipment should be to check the power unit fuses and make a visual inspection of the unit chassis. This inspection may reveal charred insulation or other evidence of abnormal operation. Resistors and capacitors should be inspected for discoloration or leakage. If components appear normal, tubes should be checked as specified in Section 6. When testing tubes remove them one at a time to insure replacement in the same socket. This procedure will avoid the possibility of disturbing circuit alignment.

A fault in some part of the equipment may usually be associated with abnormal receiver output conditions, control settings, control operation, or operation of meters and pilot lamp. Any visible deviation from normal operation of the equipment usually will assist in localizing the source of trouble. Possible causes of troubles which might develop, and the symptoms by which they may be recognized, are described in Table 7-1.

TABLE 7-1. SYMPTOMS AND CAUSES

SYMPTOMS	CAUSES
No Signal or Noise Output.	See that all knob settings are correct. Defect in rectifier power supply. If pilot lamps do not light check input to power supply. If no indication on "D-C VOLTS" meter is obtained check rectifier tube V401 in Rectifier Power Unit. Check headphones and associated equipment. Check to see if receiver is totally inoperative in other positions of the band switch. If receiver is inoperative in one band switch position only, refer to Figures 7-64 and 7-65, and check components in inoperative band switch position. Defective tubes (starting at audio end, check each tube). Check tube socket voltages and compare readings obtained with those given in Tables 7-2 to 7-8.
Low Sensitivity.	See that all knob settings are correct. Check for normal noise output readings on OUTPUT meter. If normal indications are obtained, refer to Figures 7-64 and 7-65, and check components of antenna input stage. Defective tubes (aging tubes will cause a reduction in sensitivity). Measure inputs to various stages of receiver and compare results with those given in Paragraph 3. Check to see if a condition of low sensitivity exists on all positions of band switch. If sensitivity is low on one band switch position only, check components in band switch position where low sensitivity is evident.
Low Maximum Noise Output and No Signal Output.	Defect in heterodyne oscillator circuit. Replace oscillator tube V103 (or V203) with one of known condition. Refer to Figures 7-64 and 7-65, and check components of this circuit. Refer to Tables 7-9 and 7-10 and check to see that resistance measurements obtained agree with those given.

(Continued)

TABLE 7-1.—(Continued)

SYMPTOMS	CAUSES
Low Signal-to-Noise Ratio is Obtained with Normal Output Readings (see Paragraph 3).	Check the ANT COMP. knob setting. Check the antenna circuits. Check the external transmission line connections. Check the connections of other receivers to the same antenna. Check the receiver circuits preceding the grid of the first r-f tube V101 (or V201). Check that the condition is not due to external noise pick-up, or interference from local transmitters or other electrical equipment. Check the antenna link connections as shown in Figures 3-11 and 3-12. **NOTE** A condition of poor signal-to-noise ratio may be caused also by a noisy condition in the receiver circuits or failure of the r-f amplifier tubes and circuit. These conditions, however, may be detected usually by the use of Tables 7-13 and 7-14.
No Output or Low Sensitivity for Particular Control Settings.	Defect in circuit affected by particular control setting. Refer to Figures 7-64 and 7-65, and check components associated with the control. If faulty operation is obtained with the RECEPTION knob on CW or CW-OL, and the equipment operates normally on the MOD position of the switch, check the cw oscillator tube, V304, and its associated circuit. Normal operation of the cw oscillator is indicated by reception of cw signals, and by an increase in receiver noise output of approximately 6 db, when the RECEPTION knob is changed from MOD to the "CW" position. Check the contacts of the band switch by switching back and forth through affected band several times. If intermittent operation is evident check band switch contacts. If trouble is experienced with RADIO SELECTIVITY switch check input to various stages with the values given in Tables 7-15 to 7-18. Abnormal operation when the NOISE LIMITER switch is placed in the ON position, may be due to defective noise limiter tube V306 or other components of the circuit. Normal operation of the a.g.c. system is indicated by the INPUT meter operation and by an essentially constant output from signals of widely different intensity, except the output of very weak signals. Faulty operation of the a.g.c. system may be evidenced by distortion of strong signals. Make certain that the OUTPUT LEVEL control is sufficiently retarded. Failure of the INPUT meter to operate indicates trouble in the meter circuit, first i-f grid circuit V301 or a.g.c. diode tube V305 and associated circuits. If the INPUT meter operates, but trouble is still evident in the a.g.c. system the grid circuits of the first a-f stage, second i-f stage, or first and second r-f stages should be investigated. Normal operation of the silencer circuit is indicated, if with the RECEPTION transfer switch in the MOD-AVC-SIL position, a high background noise is obtained with the SILENCER control at minimum and the OUTPUT LEVEL control sufficiently advanced. The noise output should remain constant as the SILENCER control is advanced to a setting of approximately 30. At this setting the noise output should be reduced approximately 20 db and remain cut off as the SILENCER control is further advanced to maximum. A fault in the silencer circuit is indicated by failure of the silencing action, abnormal hum output in the silenced condition, and by wide deviations of the control setting at which silencing action occurs. Check the circuit by reference to Paragraph 2. Normal operation of the output limiter circuit (RECEPTION transfer switch in the CW-OL position) is indicated if this circuit holds the receiver output essentially constant for wide variations in signal level or GAIN control setting except for very weak signals. If faulty operation is obtained, the output limiter circuit should be analyzed by reference to Paragraph 2. Difficulty with operation of the AUDIO SELECTIVITY switch in the SHARP position would indicate a fault in the audio band-pass filter unit and associated circuit.
Selectivity Low and Interference High.	A faulty condition of selectivity or signal interference is difficult to recognize since the strength of the interfering signal is usually unknown. An approximate measure of selectivity may be made, by noting approximate signal and interference input levels as indicated on the INPUT meter, and the frequency separation indicated by receiver tuning dial readings. Reduction in selectivity will be accompanied normally by reduction in sensitivity, and the trouble may be analyzed in the manner described for low sensitivity conditions. Interference conditions from local transmitters may be attributed usually to faulty shielding, poor ground connections, or line filter defects. The panel thumbscrews should be tightened and all ground connections examined. Refer to Paragraph 5.

(Continued)

TABLE 7-1.—(Continued)

SYMPTOMS	CAUSES
Noisy Operation.	Should a condition of noisy operation arise, check the effect of removing the antenna connection, to determine whether the noise originates within the equipment. The trouble may be located in some cases by measurement of noise outputs with successive tubes removed (Paragraph 3). Loose connections, imperfect shielding, or noisy tubes may be located by tapping various suspected parts.

As a further aid in locating difficulties, Figure 7-2 is provided. Switch positions on this trouble-shooting chart are supplied as a guide only: circuits associated with a particular switch setting should be checked. Table 2-1 in Section 2 lists the band switch positions and contacts. RECEPTION switch S304 panel settings and contacts are as follows:

MOD-AVC-SIL	S304, contacts 6-12
MOD-AVC	S304, contacts 5-11
MOD	S304, contacts 4-10
CW	S304, contacts 3-9
CW-OL	S304, contacts 2-8

The RADIO SELECTIVITY switches, S306, S307, and S308, are shown in the BROAD position on the if/af section schematic diagram, Figure 7-67.

In locating trouble, the servicing block diagram, Figure 7-63, should also be utilized.

CAUTION

To avoid shock due to charging current in the a-c line filter capacitors, the equipment should never be operated while ground connections are removed from the rectifier power or receiver unit cabinets. When a unit is operated out of its cabinet, an additional ground should be connected to the chassis.

Due to the many circuits involved in the five positions of S304, the servicing block diagram, Figure 7-63, should be utilized when localizing trouble. Figure 3-16, Section 3, is the primary power distribution diagram.

Only interconnection cable W401, between receiver and power unit, is supplied with the equipment. Details for cable W401 are shown on Figure 7-59. Other cables are shown on Figures 3-3 and 3-14 in Section 3.

2. VOLTAGES AND RESISTANCES.

Localizing a circuit fault is facilitated by checking the resistances and operating voltages throughout the equipment. A 20,000 ohms-per-volt meter such as Multimeter TS-352/U series is required for this purpose.

a. POWER UNIT.—Measurement of the power unit load voltages may be made at terminal board E301 or at the rear of receptacle J301. Values should be as listed in Table 7-2.

TABLE 7-2. RECTIFIER POWER UNIT, OUTPUT VOLTAGES

MEASUREMENTS AT E301	MEASUREMENTS AT J301	VOLTAGES
		LOAD—1 RBB OR 1 RBC RECEIVER
2 to 5	A to B	17 v. ac
7 to 8	C to D	6.3 v. ac
1 to 5	E to F	105 v. dc
3 to 5	F to G	200 v. dc
—	P to S	115 v. ac

Voltage tolerance, 20%.

No-load voltages from the power unit may be measured at the receiver end of cable W401 by connecting a jumper between pins S and P on the plug. These voltages are tabulated in Table 7-3. Before connecting the jumper remove input supply plug P401 from receptacle J401. Do not operate the power unit without load for more than a few minutes.

TABLE 7-3. RECTIFIER POWER UNIT, NO-LOAD OUTPUT VOLTAGES

MEASUREMENTS AT W401	VOLTAGES NO-LOAD
A to B	18 v. ac
C to D	7.3 v. ac
E to F	108 v. ac
F to G	240 v. dc

Voltage tolerance, 20%.

Resistances in the power unit are listed in Table 7-4. As an additional check, Figure 7-3 lists the tube socket resistances. Power unit components are identified on Figures 7-4 and 7-5.

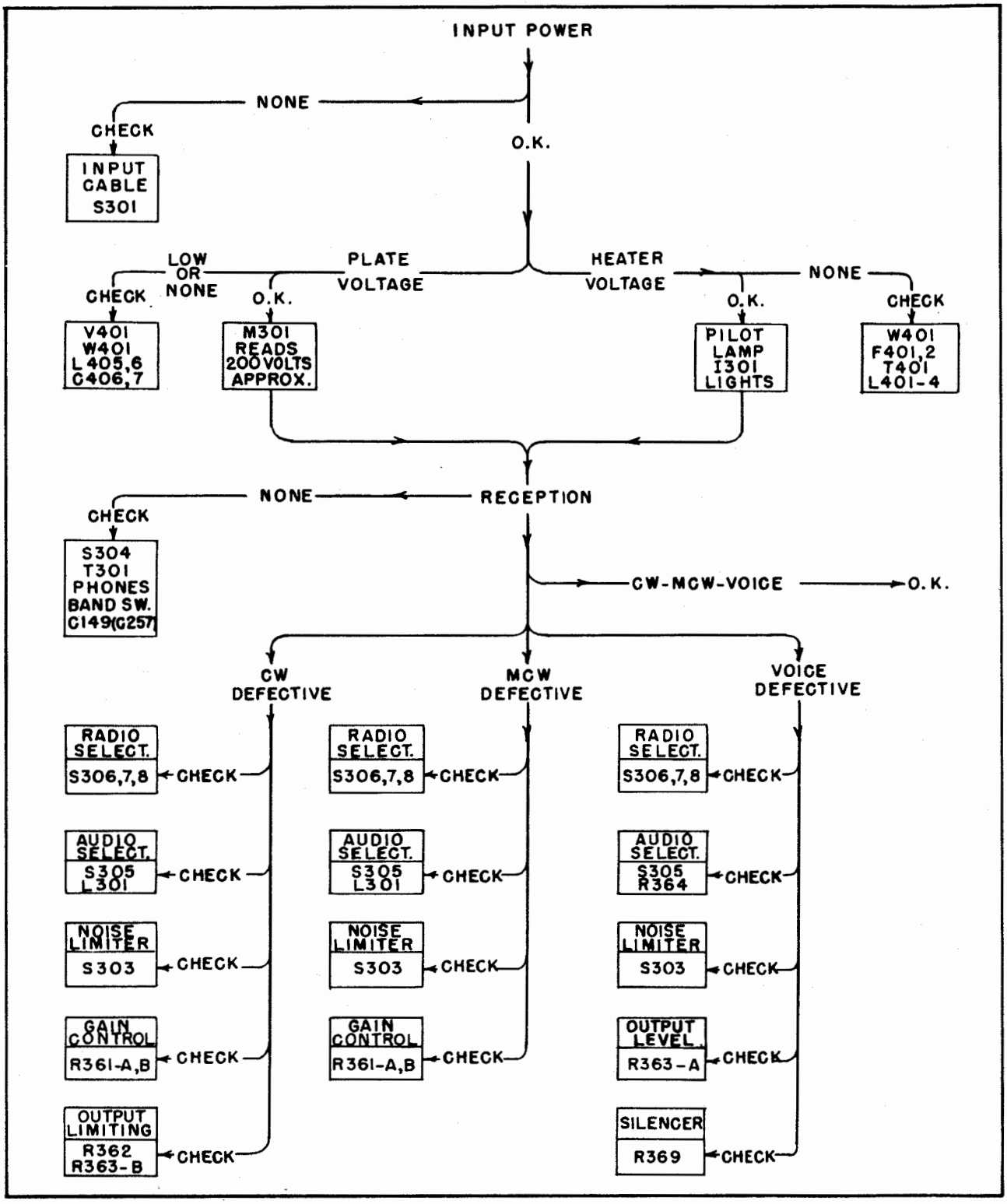
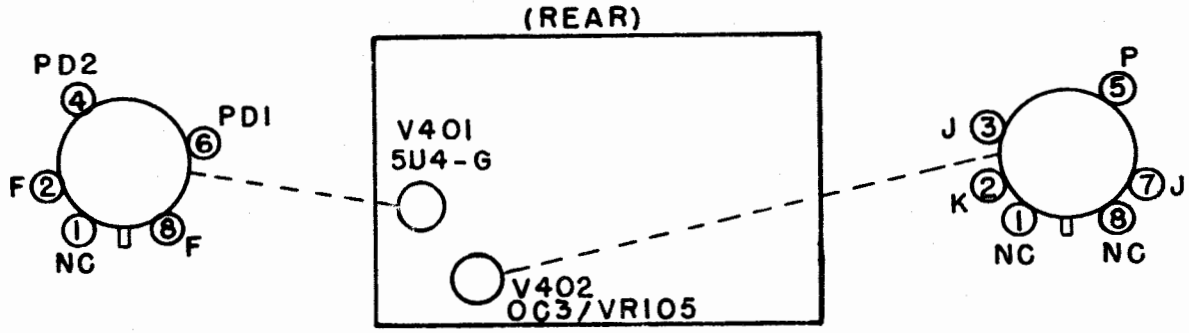


Figure 7-2. Trouble-Shooting Chart



TUBE SYMBOL NO.	PIN NUMBERS							
	1	2	3	4	5	6	7	8
V401	NC	open	NC	open	NC	open	NC	open
V402	NC	open	NC	NC	open	NC	NC	NC

All external cables disconnected.
All tubes in sockets.
All measurements made to ground.

Figure 7-3. Power Unit, Tube Socket Resistances

TABLE 7-4. RECTIFIER POWER UNIT, RESISTANCE MEASUREMENTS

MEASUREMENT POINTS	RESISTANCE
J401-2 to J403-S	1.63
J401-1 to T401-1	1.61
J401-1 to T401-2	2.68
J401-1 to T401-3	2.72
J401-1 to T401-4	2.75
J403-P to J401-1 (link on 115 v.)	2.75
V401-2 to V401-8 (tube out)	0.07
J403-F to V401-4 or T401-7	43.6
J403-F to V401-6 or T401-5	43.6
J403-A to J403-B	0.52
J403-C to J403-D	0.11
J403-G to T401-12	200
J403-G to J403-E	3600

All external cables disconnected.
All tubes in sockets unless otherwise noted.
All resistances in ohms.
Tolerance 20%.

Figures 7-58 and 7-59 are the power unit connection and schematic diagrams, respectively.

b. RBB/RBC RECEIVER.—Tube layout and identification for the RBB/RBC units are indicated on Figure 7-6.

CAUTION

When removing first heterodyne oscillator tube V103 (or V203), turn off power or remove regulator tube V106 (or V206), to avoid overload of the heater-shunt potentiometer, R116 (or R219).

Table 7-5 lists the tube operating characteristics.

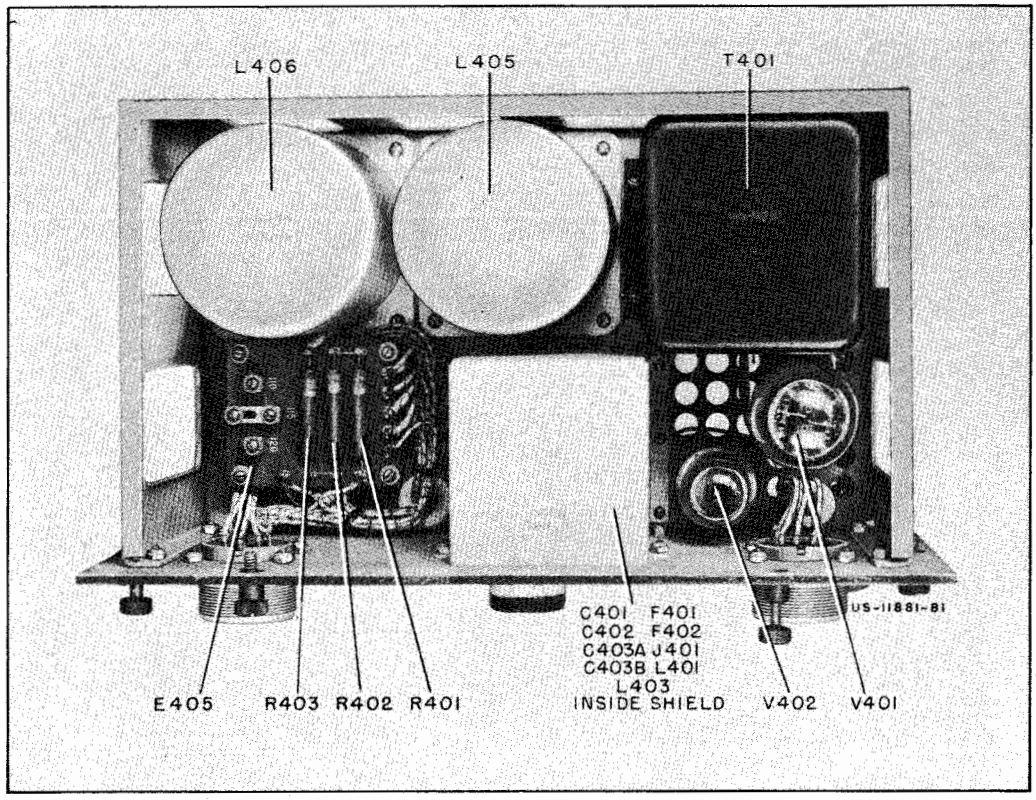


Figure 7-4. Power Unit Component Identification, Above Chassis

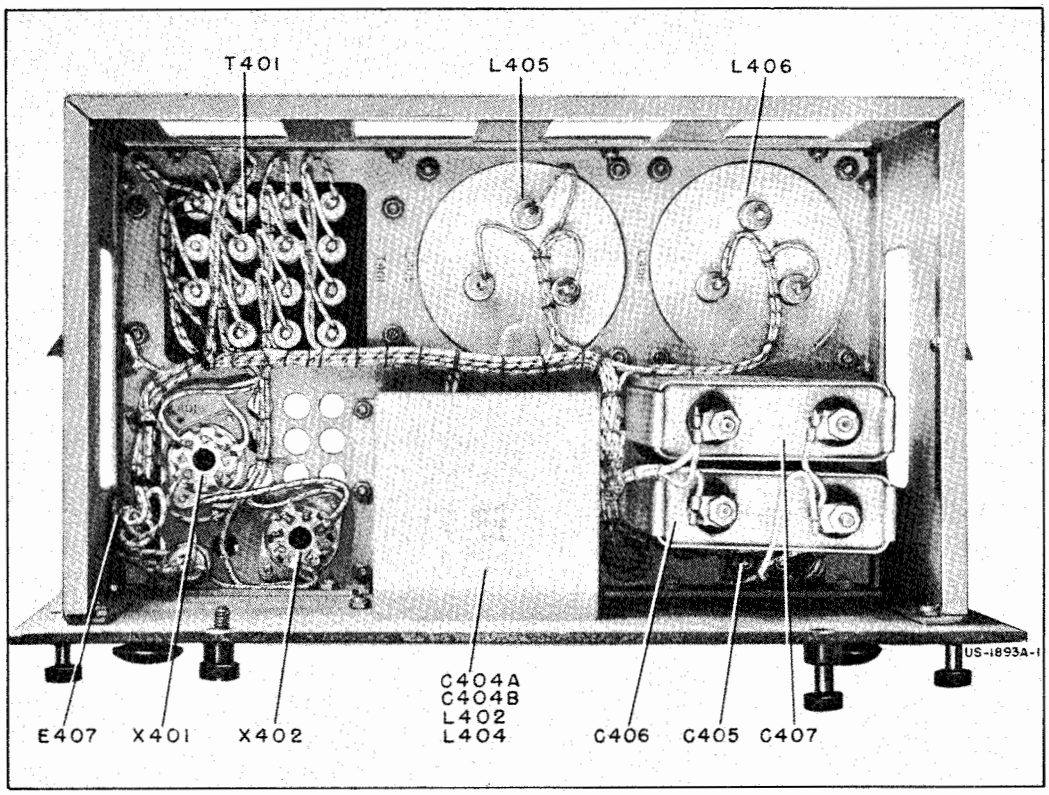


Figure 7-5. Power Unit Component Identification, Below Chassis

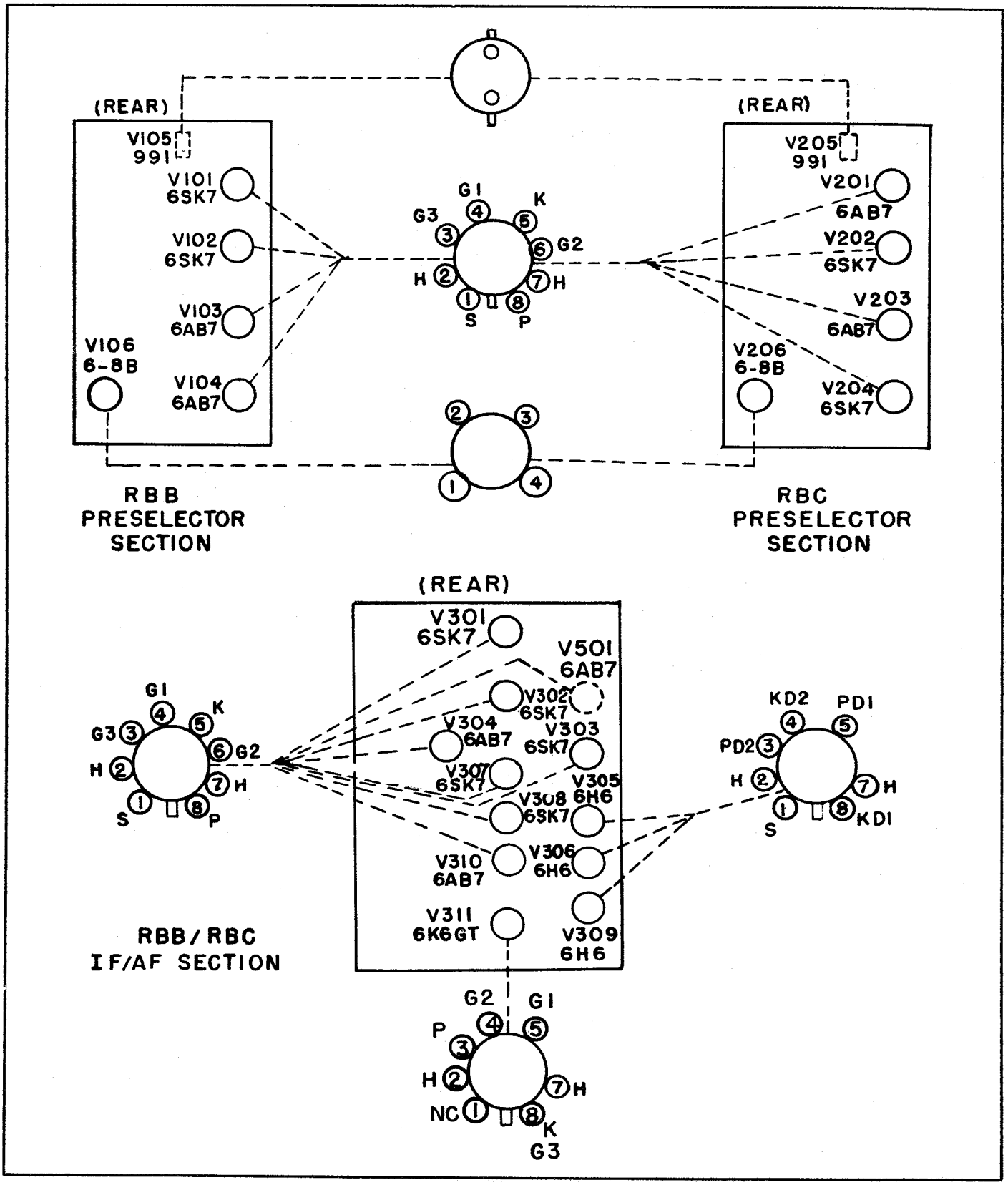


Figure 7-6. RBB/RBC, Tube Socket Layout and Identification

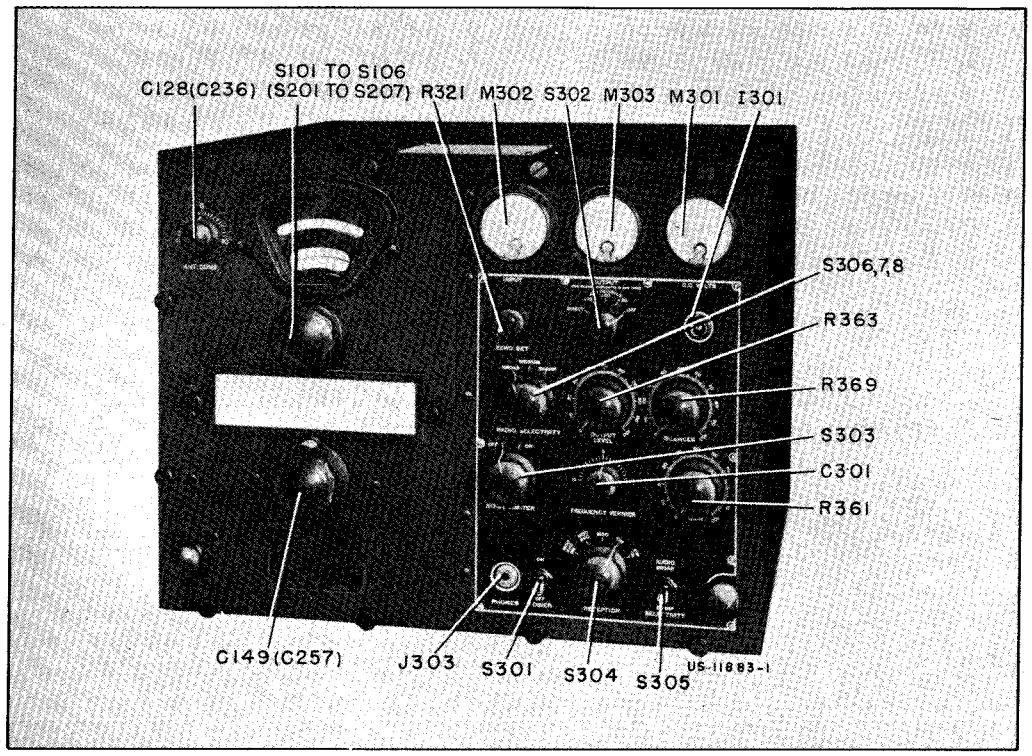


Figure 7-7. RBB/RBC Panel Component Identification

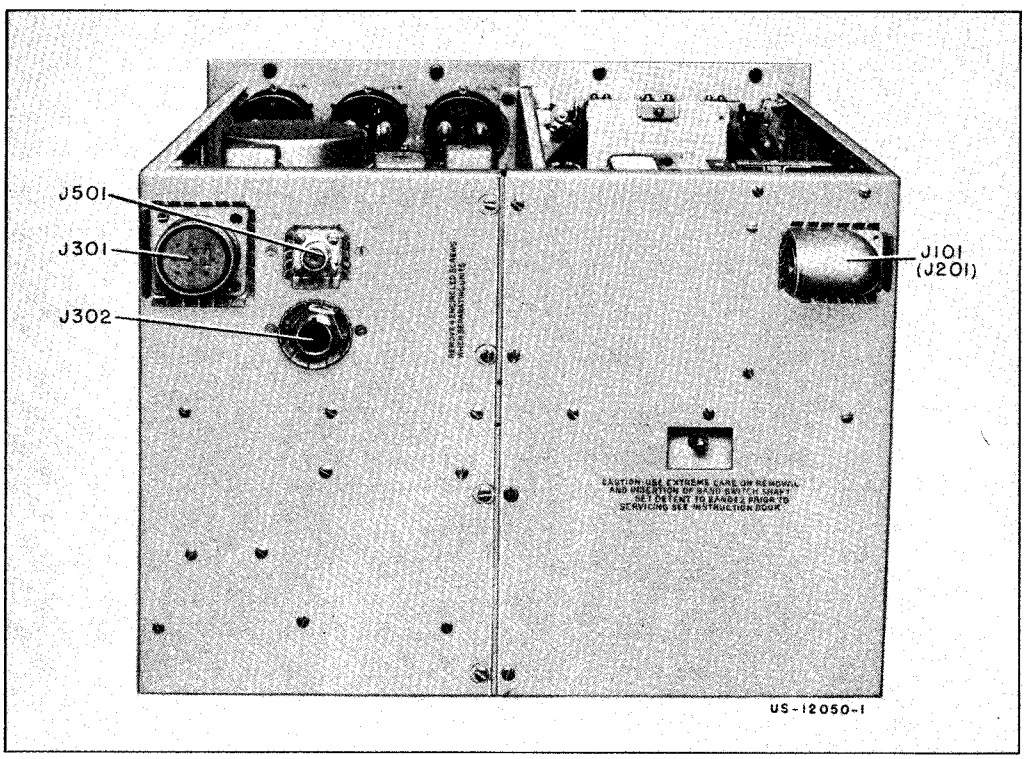


Figure 7-8. RBB/RBC Receptacle Identification, Rear View

Note

All tubes of a given type supplied with the equipment shall be consumed prior to employment of tubes from general stock.

To facilitate voltage and resistance measurements, the preselector section is shown separately from the if/af section. Tube socket voltages and resistances are given in the following tables:

Table 7-6—RBB preselector section, voltages
Table 7-7—RBC preselector section, voltages
Table 7-8—RBB/RBC if/af section, voltages
Table 7-9—RBB resistances
Table 7-10—RBC resistances

Resistances at receptacles J301 and J302 are supplied in Tables 7-11 and 7-12, respectively. Tube operating currents are supplied along with the socket voltages.

TABLE 7-5. RATED TUBE CHARACTERISTICS

TUBE TYPE	FILAMENT VOLTAGE (V)	FILAMENT CURRENT (A)	PLATE VOLTAGE (V)	GRID BIAS (V)	SCREEN VOLTAGE (V)	PLATE CURRENT (MA)	SCREEN CURRENT (MA)	A-C PLATE RESISTANCE (OHMS)	VOLTAGE AMPLIFICATION FACTOR (MU)	TRANSCONDUCTANCE (MICROMHOS)		EMISSION	
										NORMAL	MINIMUM	I_s (MA)	TEST VOLTS
5U4-G	5.0	3.0										225	75
6AB7	6.3	0.45	300	-3	200	12.5	3.2	700,000	3,500	5,000	4,000	20	65
6H6	6.3	0.3	117			8						15	20
6K6-GT	6.3	0.4	250	-18	250	33	10	90,000	207	2,300	1,800	40	30
6SK7	6.3	0.3	250	-3	100	9.2	2.6	800,000	1,600	2,000	1,600	65	30
6-8B†													
991			59*			2							
OC3/VR105			105**			5-40							

† Amperite regulating tube, 6-8 volts, 0.5 ampere capacity.
* 67-87 volts starting.
** 115 volts starting.

TABLE 7-6. TUBE SOCKET VOLTAGES—RBB PRESELECTOR

TUBE SYMBOL	TUBE TYPE	UNIT	PIN NUMBER								GAIN CONTROL SETTING
			1	2	3	4	5	6	7	8	
V101	6SK7	volts	0	6.1 ac	0.76	0	2.1	66	0	180	*max.
		ma	0		0	0	6.0	1.4		5.0	*max.
		volts	0	6.1 ac	18	0	18	85	0	208	min.
		ma	0		0	0	0.5	0.1	0	0.4	min.
V102	6SK7	volts	0	6.1 ac	0.7	0	2.0	66	0	180	*max.
		ma	0		0	0	5.7	1.3		4.6	*max.
		volts	0	6.1 ac	13.5	0	13.5	85	0	208	min.
		ma	0		0	0	0.34	0.06	0	0.3	min.
V103	6AB7	volts	0	6.3 ac	0	0	0	90	0	40	*max.
		ma	0		0	0	14	3.7		11	*max.
V104	6AB7	volts	0	0	0	0	7.8	160	6.1 ac	195	max.
		ma	0	0	0	0	1.2	0.2		1.1	max.
V106	6-8B	volts	6.3†			17 ac†					

All voltages measured to ground.
All voltages dc unless otherwise noted. Variation 20%.
All measurements made on 20,000 ohms-per-volt meter, scale used having maximum range not more than three times value given.
* Grid must be grounded while measuring.
† 10 volts ac between pins 1-4 of V106.
RECEPTION switch S304 at CW setting.

TABLE 7-7. TUBE SOCKET VOLTAGES—RBC PRESELECTOR

TUBE SYMBOL	TUBE TYPE	UNIT	PIN NUMBER 1	2	3	4	5	6	7	8	GAIN CONTROL SETTING
V201	6AB7	volts	0	6.1 ac	1.3	0	1.3	73	0	182	*max.
		ma	0		0	0	5.6	1.1		4.7	*max.
		volts	0	6.1 ac	23	0	23	208	0	211	min.
		ma	0		0	0	0	0		0	min.
V202	6SK7	volts	0	6.1 ac	1.25	0	1.25	55	0	182	*max.
		ma	0		0	0	5.5	1.2		4.3	*max.
		volts	0	6.1 ac	23.5	0	23.5	155	0	206	min.
		ma	0		0	0	1.55	0.34		1.2	min.
V203	6AB7	volts	0	6.3 ac	0	0	0	85	0	66	*max.
		ma	0		0	0	8.8	2.15		8	*max.
V204	6SK7	volts	0	0	13	0	13	140	6.1 ac	194	max.
		ma	0	0	0	0	2.8	0.64		2.2	max.
V206	6-8B	volts	6.3 ac†			17 ac†					

All voltages measured to ground.
All voltages dc unless otherwise noted. Variation 20%.
All measurements made on 20,000 ohms-per-volt meter, scale used having maximum range not more than three times value given.
* Grid must be grounded while measuring.
† 10 volts ac between pins 1-4 of V206.
RECEPTION switch at CW setting.

TABLE 7-8. TUBE SOCKET VOLTAGES—RBB/RBC IF/AF SECTION

TUBE SYMBOL	TUBE TYPE	UNIT	PIN NUMBER 1	2	3	4	5	6	7	8	CONTROL SETTINGS GAIN	RECEPTION	SILENCER	OUTPUT LEVEL
V301	6SK7	volts	0	0	4.5	0	4.5	95.0	6.1 ac	202	*max.	CW		
		ma	0		0	0	5.8	1.35		4.8	*max.			
		volts	0	0	23.5	0	23.5	120.0	6.1 ac	212	*min.			
		ma	0		0	0	0.24	0.04		0.2	*min.			
V302	6SK7	volts	0	0	3.5	0	3.5	80.0	6.1 ac	182	*max.	CW		
		ma	0		0	0	5.8	1.27		4.8	*max.			
		volts	0	0	23.5	0	23.5	120.0	6.1 ac	212	*min.			
		ma	0		0	0	0.27	0.05		0.22	*min.			
V303	6SK7	volts	0	0	2.9	0	2.9	70.0	6.1 ac	180	max.	CW		
		ma	0		0	0	5.6	1.25		4.4	min.			
		volts	0	0	24.5	0	24.5	170	6.1 ac	205	min.			
		ma	0		0	0	1.8	0.35		1.5	max.			
V304	6AB7	volts	0	0	125	0	4.2	125	6.1 ac	145	max.	CW		
		ma	0		0.08	0	1.85	0.34		1.5	max.			
V305	6H6	volts	0	6.1 ac	0	30	−0.3		0	0.02	max.	MOD	max.	max.
		ma	0	0	0	0	0		0	0	max.	MOD	max.	max.
V306	6H6	volts	0	0	0.4	60.0	−4.61		6.1 ac	0.2	min.	CW-OL	....	max.
		ma	0		0.03	0.03	0			0	min.	CW-OL	....	max.
		volts	0	0	0	0	−4.6		6.1 ac	0.2	max.	CW-OL	....	min.
		ma	0		0.11	0.11	0			0	max.	CW-OL	....	min.
V307	6SK7	volts	0	0	0	0	1.55	28.0	6.1 ac	68.0	max.	MOD	max.	....
		ma	0		0	0	1.45	0.36		1.1	max.	MOD	max.	....
V308	6SK7	volts	0	0	0	0	1.4	15.0	6.1 ac	60	min.	CW-OL	max.	....
		ma	0		0	0	0.32	0.08		0.25	min.	CW-OL	max.	....
		volts	0	0	0	0.06	3.4	55.0	6.1 ac	7	max.	MOD-AVC-SIL	max.	....
		ma	0		0		0.7	0.34		0.38	max.	MOD-AVC-SIL	max.	....
		volts	0	0	0	−0.2	0	0	6.1 ac	180	max.	MOD-AVC-SIL	min.	....
		ma	0		0		0	0		0	max.	MOD-AVC-SIL	min.	....

(Continued)

TABLE 7-8. TUBE SOCKET VOLTAGES—RBB/RBC IF/AF SECTION—Continued

TUBE SYMBOL	TUBE TYPE	UNIT	PIN NUMBER 1	2	3	4	5	6	7	8	CONTROL SETTINGS GAIN	RECEPTION	SILENCER	OUTPUT LEVEL
V309	6H6	volts	0	0	0	0.4	0		6.1 ac	0	min.	CW-OL	....	max.
		ma	0		0.03	0.03	0			0	min.	CW-OL	....	max.
		volts	0	0	0	0	0		6.1 ac	0	max.	CW-OL	....	min.
		ma	0	0	1.2	1.2	0			0	max.	CW-OL	....	min.
		volts	0	0	0	0.4	0.2		6.1 ac	130	max.	MOD-AVC-SIL	max.	max.
		ma	0		0.02	0.02	0			0	max.	MOD-AVC-SIL	max.	max.
		volts	0	0	0	0.4	156		6.1 ac	160	max.	MOD-AVC-SIL	min.	min.
		ma	0		0.02	0.02	0.02			0.02	max.	MOD-AVC-SIL	min.	min.
V310	6AB7	volts	0	0	0	0	1.35	47.0	6.1 ac	68.0	max.	MOD	max.	....
		ma	0		0	0	1.56	0.32		1.25	max.	MOD	max.	....
V311	6K6-GT	volts		0	192	200			6.1 ac	13.5	max.	MOD	max.	....
		ma			18.5	2.8				22	max.	MOD	max.	....
V501	6AB7	volts	0	0	0	0	2.7	135	6.1 ac	135	....	.....	....	....
		ma	0	0	0	0	5.75	5.75		5.75	....	.....	....	....

All voltages measured to ground.
All voltages dc unless otherwise noted. Variation 20%.
All measurements made on 20,000 ohms-per-volt meter, scale used having maximum range not more than three times value given.
* Grid grounded of tube being checked.

TABLE 7-9. TUBE SOCKET RESISTANCES—RBB (PRESELECTOR AND IF/AF SECTIONS)

TUBE SYMBOL	TYPE TUBE	PIN NUMBER 1	2	3	4	5	6	7	8	RECEPTION SWITCH SETTING
V101	6SK7	0	0.3	120	300,000	340	15,000	0	15,000	MOD
V102	6SK7	0	0.3	120	300,000	340	15,000	0	15,000	MOD
V103	6AB7	0	40	0	47,000	0	open*	0	open*	MOD
V104	6AB7	0	0	0	100,000	6,000	110,000	0.3	15,000	MOD
V106	6-8B	open*	no conn.	no conn.	4.5					....
V301	6SK7	0	0	680	220,000	680	8,000	0.3	10,000	MOD
V302	6SK7	0	0	470	100,000	470	18,000	0.3	15,000	MOD
V303	6SK7	0	0	470	1,500,000	470	110,000	0.3	15,000	MOD
V304	6AB7	0	0	140,000	68,000	1,950	140,000	0.3	47,000	CW
V305	6H6	0	0.3	700,000	7,800	540,000	no conn.	0	15,000	MOD
V306	6H6	0	0	open	25,000	270,000	no conn.	0.3	2,300,000	MOD
V307	6SK7	0	0	0	3,200,000	1,000	480,000	0.3	120,000	MOD
V308	6SK7	0	0	0	50,000	3,900	2,200,000	0.3	500,000	CW-OL
		0	0	0	50,000	950	500,000	0.3	120,000	MOD
V309	6H6	0	0	0	open	1,600,000	no conn.	0.3	1,100,000	MOD
V310	6AB7	0	0	0	2,700,000	3,900	250,000	0.3	500,000	MOD-AVC-SIL
V311	6K6-GT	no conn.	0	10,000	10,000	1,000,000	no conn.	0.3	680	MOD
V501	6AB7	0	0	0	1,000,000	470	20,000	0.3	20,000	....

* Open only when power unit is disconnected.
All resistances in ohms. Variation 20%.
All resistances measured to ground.
All cables disconnected.
Tube removed from socket under test; all other tubes in place.

TABLE 7-10. TUBE SOCKET RESISTANCES—RBC (PRESELECTOR AND IF/AF SECTIONS)

TUBE SYMBOL	TUBE TYPE	PIN NUMBER								RECEPTION SWITCH SETTING
		1	2	3	4	5	6	7	8	
V201	6AB7	0	0.3	220	1,300,000	220	140,000	0	20,000	MOD
V202	6SK7	0	0.3	220	1,300,000	220	140,000	0	20,000	MOD
V203	6AB7	0	40	0	47,000	0.1	open*	0.15	open*	MOD
V204	6SK7	0	0	4,700	1,000,000	4,700	120,000	0.3	20,000	MOD
V206	6-8B	4.5	no conn.	no conn.	open*					....
V301	6SK7	0	0	680	220,000	680	11,000	0.3	15,000	MOD
V302	6SK7	0	0	470	100,000	470	21,000	0.3	20,000	MOD
V303	6SK7	0	0	470	1,500,000	470	115,000	0.3	20,000	MOD
V304	6AB7	0	0	140,000	68,000	1,950	140,000	0.3	52,000	CW
V305	6H6	0	0.3	700,000	7,800	540,000	no conn.	0	15,000	MOD
V306	6H6	0	0	open	25,000	270,000	no conn.	0.3	2,300,000	MOD
V307	6SK7	0	0	0	3,200,000	1,000	480,000	0.3	125,000	MOD
V308	6SK7	0 0	0 0	0 0	50,000 2,700,000	3,900 3,900	2,200,000 250,000	0.3 0.3	500,000 500,000	CW-OL MOD-AVC-SIL
V309	6H6	0	0	0	open	1,600,000	no conn.	0.3	1,100,000	MOD
V310	6AB7	0	0	0	50,000	950	500,000	0.3	125,000	MOD
V311	6K6-GT	no conn.	0	15,000	15,000	1,000,000	no conn.	0.3	680	MOD
V501	6AB7	0	0	0	1,000,000	470	20,000	0.3	20,000	....

* Open only when power unit is disconnected.
All resistances in ohms. Variation 20%.
All resistances measured to ground.
All cables disconnected.
Tube removed from socket under test; all other tubes in place.

TABLE 7-11. RESISTANCES, J301

TERMINAL J301	RESISTANCES	
	RBB	RBC
A	7	7
B	0	0
C	0	0
D	0.3	0.3
E	open	open
F	0	0
G	10,000	15,000
S	open	open
P	open	open

All resistances in ohms. Variations 20%
All resistances measured to ground

TABLE 7-12. RESISTANCES, J302

TERMINAL J302	RESISTANCES RBB/RBC
1	0
2	1.3
3	1.3

All resistances in ohms. Variations 20%
All resistances measured to ground

Where servicing requires separation of the two receiver sections or where disassembly operations are required, reference should be made to paragraph 5, "Mechanical Maintenance," in this section.

Components on the RBB/RBC chassis are identified on Figures 7-9 to 7-16.

Figures 7-60 and 7-61 are the RBB and RBC preselector connection diagrams while Figures 7-64 and 7-65 are the corresponding schematic diagrams.

The RBB/RBC if/af section connection and schematic diagrams are supplied on Figures 7-66 and 7-67

3. RBB/RBC NOISE LEVEL AND SENSITIVITY.

Curves on operation of the RBB/RBC are supplied as follows:

Figure 7-38 — Dial calibration, RBB/RBC
Figure 7-39 — Cw sensitivity, RBB/RBC
Figures 7-40 to 7-43 — Selectivity, bands 1-4, RBB
Figures 7-44 to 7-47 — Selectivity, bands 1-4, RBC
Figure 7-48 — I-f selectivity, RBB/RBC
Figure 7-49 — Image selectivity, RBB/RBC
Figure 7-50 — Audio fidelity, RBB
Figure 7-51 — Audio fidelity, RBC
Figure 7-52 — Resonant overload, RBB
Figure 7-53 — Resonant overload, RBC
Figure 7-54 - Agc, RBB
Figure 7-55 — Agc, RBC
Figure 7-56 — Output limiter, RBB
Figure 7-57 — Output limiter, RBC

a. NOISE LEVEL.—To locate the source of excessive receiver noise, first disconnect the antenna. If noise is not reduced, tap suspected parts to check for loose connections, imperfect shielding, or noisy tubes. Power supply line filters may also be defective.

Normal receiver noise values are tabulated in Tables 7-13 and 7-14 for the RBB and RBC units, respectively. Values shown are indicated on the OUTPUT meter and require that the receiver input be disconnected from the antenna and terminated in a standard dummy antenna, such as Antenna Simulator SM-35/URM-25 unit furnished with RF Signal Generator Set AN/URM-25. The GAIN control knob should be at maximum, the RADIO SELECTIVITY control knob in the BROAD position, and the RECEPTION knob in the MOD position. Considerable variation may be expected in the values given due to normal tube and circuit variations.

TABLE 7-13. NOISE OUTPUT VOLTAGES—RBB

Noise Output in DB (Zero Level=60 Microwatts)

BAND	DIAL SETTING	OVERALL NOISE	V101 REMOVED	V102 REMOVED	V203 PLATE VOLTAGE REMOVED
1	0.5 mc 0.84 mc	22 30	16 24	11 14	0 0
2	0.84 mc 1.41 mc	20 26	16 20	13 14	0 0
3	1.41 mc 2.37 mc	22 29	15 21	11 14	0 0
4	2.37 mc 4.00 mc	23 31	16 23	12 18	0 0

TABLE 7-14. NOISE OUTPUT VOLTAGES—RBC

Noise Output in DB (Zero Level=60 Microwatts)

BAND	DIAL SETTING	OVERALL NOISE	V201 REMOVED	V202 REMOVED	V203 PLATE VOLTAGE REMOVED
1	4.0 mc 6.45 mc	26 28	18 22	13 20	1 1
2	6.45 mc 10.3 mc	25 28	16 24	11 20	1 1
3	10.3 mc 16.5 mc	14 27	11 20	6 17	1 1
4	16.5 mc 27.0 mc	16 21	6 16	4 16	1 1

b. A-F, I-F, AND R-F SENSITIVITY.—Standard RBB/RBC output or sensitivity is obtained when, with a 600-ohm non-inductive load connected to J302 and the ADD DECIBELS switch in the +20 position, the OUTPUT meter indicates zero db. This reading is equivalent to 6 milliwatts signal input. Noise output must have previously been checked to insure the proper signal-to-noise ratio.

To check the response in the a-f, i-f, and r-f portions of the receiver, the following equipment is required:

R.F. Signal Generator Set AN/URM-25 or Navy Model LP.

Navy Model LAJ series Audio Oscillator Equipment.

Navy type 60107 DC Microammeter.

Multimeter ME-25/U series.

Signal application points and values are listed in Tables 7-15 to 7-18. In all four tabulations the standard output, defined in the preceding paragraph, must be obtained or the equipment is not operating satisfactorily.

TABLE 7-15. A-F INPUTS FOR STANDARD OUTPUT—RBB/RBC

GENERATOR CONNECTION POINT	GENERATOR OUTPUT AT 1,000 CYCLES
V307, pin 4	0.15 volts
V310, pin 4	0.8 volts
V311, pin 5	1.5 volts

Conditions:
RECEPTION switch at MOD.
AUDIO SELECTIVITY switch at BROAD.

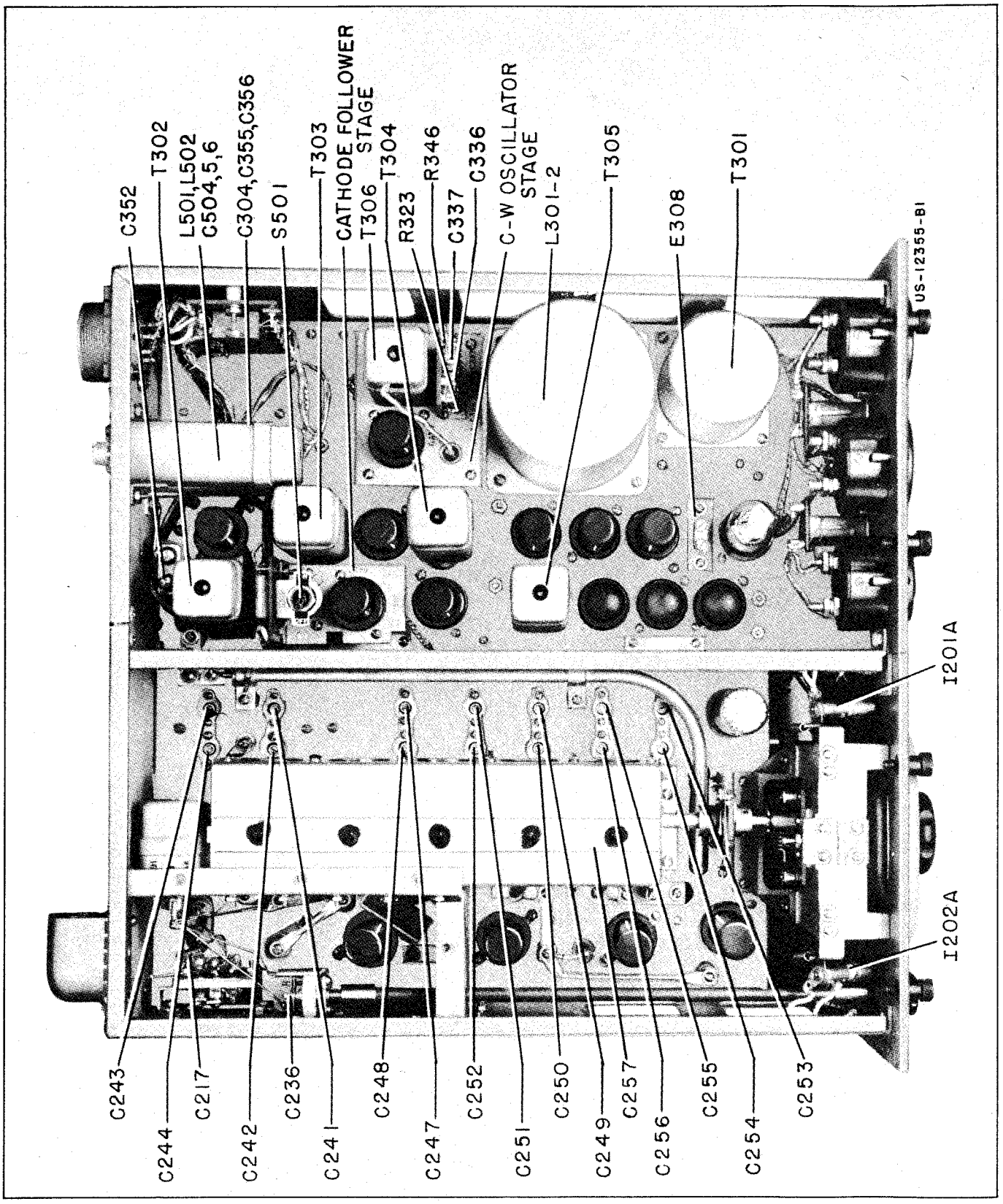


Figure 7-9. RBB Component Identification, Above Chassis

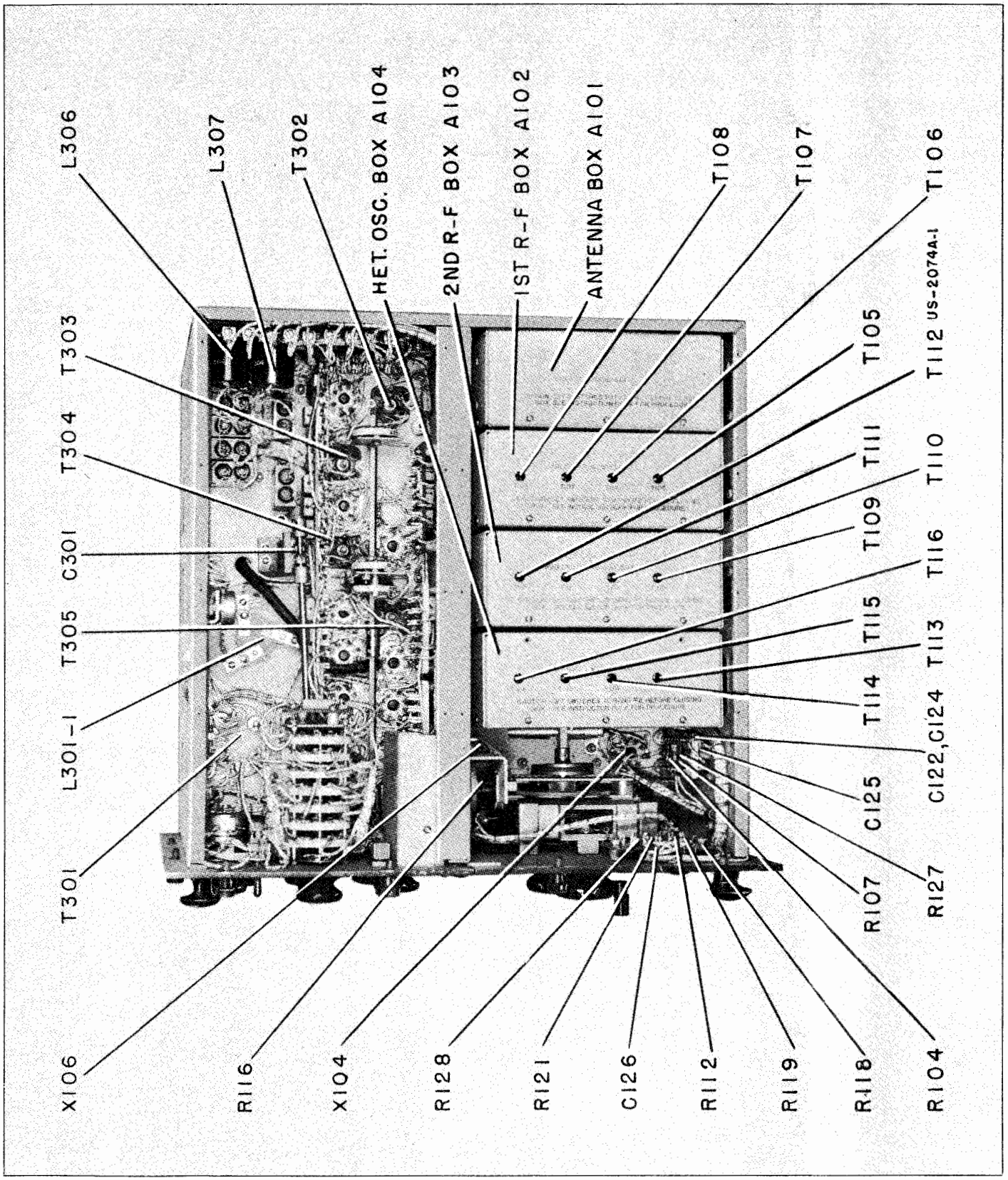


Figure 7-10. RBB Component Identification, Below Chassis

TABLE 7-16. I-F INPUTS FOR STANDARD OUTPUT—RBB/RBC

GENERATOR CONNECTION POINT	400 KC GENERATOR OUTPUT, MODULATED 30% AT 1,000 CYCLES		
	RADIO SELECT. SWITCH AT BROAD	RADIO SELECT. SWITCH AT MED.	RADIO SELECT. SWITCH AT SHARP
V104 (V204), pin 4	38 microvolts	40 microvolts	25 microvolts
V301, pin 4	190 microvolts	290 microvolts	220 microvolts
V302, pin 4	4,800 microvolts	10,300 microvolts	9,200 microvolts
V303, pin 4	115,000 microvolts	90,000 microvolts	84,000 microvolts

Conditions:
RECEPTION switch at MOD.
GAIN control at maximum.
Band 1.
Plate voltage removed from V103 (V203). Refer to Figure 7-11 or 7-14.

TABLE 7-17. R-F INPUTS FOR STANDARD OUTPUT—RBB

BAND	DIAL SETTING	GENERATOR OUTPUT FREQUENCY MODULATED 30% AT 1,000 CYCLES	GENERATOR OUTPUT VALUE AND CONNECTION POINTS			
			V104, PIN 4	V102, PIN 4	V101, PIN 4	*DUMMY ANTENNA
1	0.5	0.5 mc	320 microvolts	100 microvolts	24 microvolts	2.3 microvolts
	0.84	0.84 mc	1100 microvolts	150 microvolts	28 microvolts	3.2 microvolts
2	0.84	0.84 mc	290 microvolts	100 microvolts	25 microvolts	2.5 microvolts
	1.41	1.41 mc	670 microvolts	100 microvolts	28 microvolts	3.1 microvolts
3	1.41	1.41 mc	360 microvolts	104 microvolts	26 microvolts	2.4 microvolts
	2.37	2.37 mc	1000 microvolts	130 microvolts	37 microvolts	4.9 microvolts
4	2.37	2.37 mc	460 microvolts	110 microvolts	26 microvolts	3.9 microvolts
	4.0	4.0 mc	1200 microvolts	120 microvolts	28 microvolts	5.3 microvolts

* 70 ohms shunt resistance. Signal applied through dummy antenna.
Conditions:
RECEPTION switch at MOD.
RADIO SELECTIVITY switch at BROAD.
GAIN control set to produce 60 microwatts noise output. (In the DIRECT position of the ADD DECIBELS switch, zero db on the OUTPUT meter is equal to 60 microwatts.)

TABLE 7-18. R-F INPUTS FOR STANDARD OUTPUT—RBC

BAND	DIAL SETTING	GENERATOR OUTPUT FREQUENCY MODULATED 30% AT 1,000 CYCLES	GENERATOR OUTPUT VALUE AND CONNECTION POINTS		
			V202, PIN 4	V201, PIN 4	*DUMMY ANTENNA
1	4.0	4.0 mc	111 microvolts	15 microvolts	6.8 microvolts
	6.45	6.45 mc	140 microvolts	20 microvolts	7.0 microvolts
2	6.45	6.45 mc	110 microvolts	10 microvolts	7.2 microvolts
	10.3	10.3 mc	160 microvolts	15 microvolts	7.4 microvolts
3	10.3	10.3 mc	100 microvolts	9.5 microvolts	8.8 microvolts
	16.5	16.5 mc	150 microvolts	13 microvolts	6.8 microvolts
4	16.5	16.5 mc	130 microvolts	12 microvolts	8.4 microvolts
	27	27 mc	95 microvolts	12 microvolts	8.0 microvolts

* Signal applied through dummy antenna.
Conditions:
RECEPTION switch at MOD.
RADIO SELECTIVITY switch at BROAD.
GAIN control set to produce 60 microwatts noise output, (In the DIRECT position of the ADD DECIBELS switch, zero db on the OUTPUT meter is equal to 60 microwatts.)

Note

Inputs to the first detector grid have been omitted from Table 7-18 since the oscillator excitation is fed into the first detector grid circuit. If a low-impedance generator output is applied to the first detector grid, the oscillator excitation is so reduced as to preclude measurement.

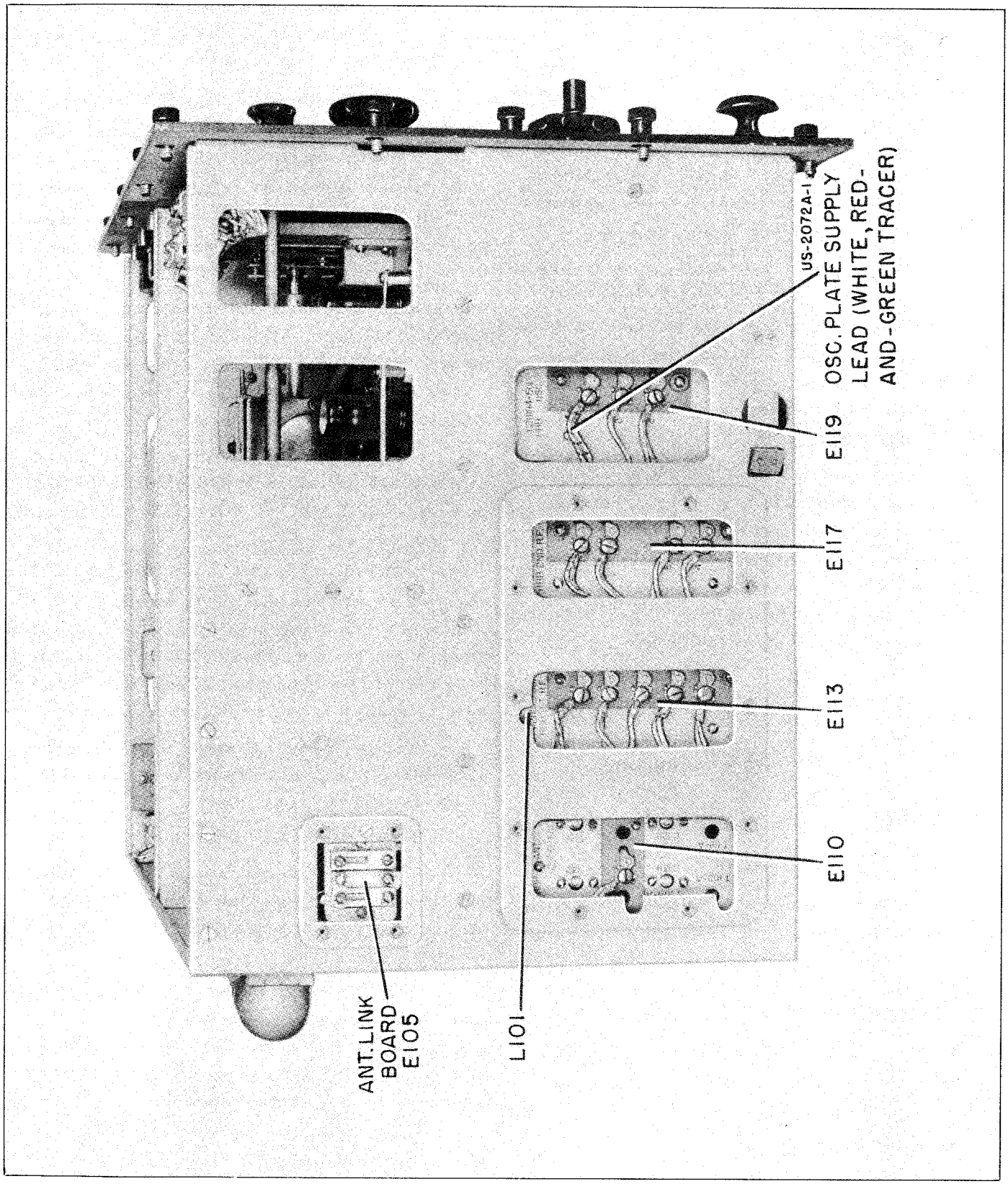


Figure 7-11. RBB Terminal Board Identification, Left Side—Shield Covers Removed

4. CIRCUIT ALIGNMENT.

Under normal operating conditions the RBB/RBC equipments will maintain adjustment over long periods of time. A periodic check, however, is advisable to insure realization of full-performance capabilities of the equipment. A recheck of circuit alignment and adjustment is advisable after replacements have been made in components or wiring. In most cases it will be necessary to readjust only the particular portions of the circuit affected by the replacements.

In general, the same alignment procedure is used for both the RBB and RBC preselector sections, variations occurring only in frequencies and components. However, in addition, a neutralizing step is necessary following adjustment of the RBC heterodyning oscillator, while the RBB unit requires bandspread and i-f rejection adjustments.

a. IF/AF SECTION ALIGNMENT, RBB/RBC.

(1) I-F ALIGNMENT.—An r-f signal generator capable of an unmodulated 400 kc output is required for alignment of the i-f stages. R-F Signal Generator Set AN/URM-25 or Navy Model LP is satisfactory. A 50-microampere meter such as Navy Type 60107 or an electronic voltmeter such as Multimeter ME-25/U is also required.

Controls and switches should be set as follows:

POWER	— OFF
AUDIO SELECTIVITY	— BROAD
NOISE LIMITER	— OFF
FREQUENCY VERNIER	— zero
OUTPUT LEVEL	— zero
ANT. COMP.	— zero
SILENCER	— zero
ADD DECIBELS	— OFF
RADIO SELECTIVITY	— SHARP
GAIN	— 95 (approx.)
RECEPTION	— MOD

Refer to Figure 7-11 or 7-14, whichever is appropriate, and disconnect the oscillator plate supply lead, white wire with red-and-green tracer.

If using Navy Type 60107 microammeter, remove the link connector on terminal board E308 located between V310 and V311, and connect the microammeter in place of the link.

If using Multimeter M-25/U connect it between the junction of R347-R348 and the chassis (ground).

Connect the output of the signal generator to pin 4 of V104 (or V204). Adjust the generator for a signal output of 400 kc ±0.1 per cent.

Operate the receiver POWER switch to ON, and adjust the generator for a reading of seven microamperes on the microammeter or 2.1 volts on the multimeter.

In the order listed, adjust the top and bottom cores of T305, T304, T303, and T302 for maximum output, reducing the generator output as necessary to keep the meter reading at seven microamperes or 2.1 volts.

This completes the i-f alignment. Adjustment of the i-f transformers, in the MEDIUM and BROAD positions of the RADIO SELECTIVITY switch, is not required.

(2) CW OSCILLATOR ALIGNMENT. — To align the cw oscillator stage, V304, set all controls as specified for the i-f alignment in the preceding paragraph, except place the RECEPTION switch at CW. Only the r-f signal generator, as used for i-f alignment, is required for the cw oscillator adjustment.

Connect the signal generator to pin 4 of V104 (or V204). Adjust the generator for a signal output of 400 kc ±0.1 per cent.

Operate the POWER switch to ON.

Advance the generator output slightly and adjust the screw at the top of transformer T306 until an audible beat note of approximately 1000 cycles is heard.

When the note is audible, turn the inductance adjustment screw of T306 in whichever direction is necessary to obtain zero beat. Zero beat is the setting from which an audible note will be heard when the adjustment screw is turned in either direction.

Now turn the adjusting screw clockwise until a note of approximately 1000 cycles is heard. When near 1000 cycles, throw the AUDIO SELECTIVITY switch to SHARP and turn the adjustment screw until the loudest signal is heard in the headphones.

This completes alignment of the cw oscillator.

If an accurate source of 400 kc input signal is not available, the input signal should first be accurately tuned to the center of the SHARP i-f band, with the AUDIO SELECTIVITY switch in the BROAD position. Then use the SHARP position of the AUDIO SELECTIVITY switch to determine the correct adjustment of T306 for a 1000 cycle output, as previously described.

(3) ADJUSTMENT OF BAND-PASS FILTER PAD R364.—Band-pass filter potentiometer, R364, is situated on the side of the if/af section, below the chassis. Location of R364 is indicated on Figures 7-15 and 7-17. An r-f signal generator is required capable of supplying an unmodulated signal at any reception frequency.

Set the panel controls and switches as follows:

RECEPTION	— CW
AUDIO SELECTIVITY	— SHARP
NOISE LIMITER	— OFF
OUTPUT LEVEL	— zero
ANT. COMP.	— zero
FREQUENCY VERNIER	— zero
RADIO SELECTIVITY	— BROAD

Operate the POWER switch to ON. Holding the ADD DECIBELS switch in the DIRECT position, adjust the GAIN control for a zero reading on the OUTPUT meter.

Place the ADD DECIBELS switch in the +20 position.

Connect a signal generator to the receiver input receptacle, and apply an unmodulated r-f signal. Signal should be of a level sufficient to produce zero reading on the OUTPUT meter.

Throw the AUDIO SELECTIVITY switch to BROAD.

Loosen the lock nut on R364 and, with a screwdriver, adjust R364 for a reading 4 DB lower than that obtained under the SHARP condition.

Tighten the lock nut on R364.

(4) ADJUSTMENT OF OUTPUT LIMITER PAD R362.—Potentiometer R362, which sets the level to the output limiter circuit, may be adjusted as follows. This control is shown on Figures 7-14 and 7-16. A generator is required capable of supplying an unmodulated r-f signal, at any input frequency.

Adjust the panel controls to the following positions:

RECEPTION	— CW
OUTPUT LEVEL	— maximum

Operate the POWER switch to ON. Hold the ADD DECIBELS switch in the DIRECT position and adjust the GAIN knob for zero reading on the OUTPUT meter.

Set the ADD DECIBELS switch to +20.

Apply an unmodulated signal to the receiver input receptacle. Any frequency in the reception band is satisfactory. Signal level should be sufficient to produce a reading of +16 db on the OUTPUT meter.

Now operate the RECEPTION switch to CW-OL. Loosen the lock nut on R362 and adjust the shaft for a reading four db higher than that obtained in the preceding paragraph.

Tighten the lock nut on R362.

b. PRESELECTOR SECTION ALIGNMENT, RBB/RBC.—The following instructions apply to both the RBB and RBC units except for band-spread, neutralization, and i-f rejection adjustments which are indicated as being applicable to a particular unit.

(1) HETERODYNE OSCILLATOR HEATER ADJUSTMENT, RBB/RBC.—Potentiometer R116 (or R219) adjusts the voltage through regulator tube V106 (or V206) and thus functions to regulate the heater voltage on oscillator tube V103 (or V203). Location of R116 (R219) is indicated on Figure 7-10 or 7-13. An a-c voltmeter is required for adjustment.

Connect the a-c voltmeter across the heater terminals of oscillator tube V103 (or V203). These terminals are numbers one and two of the terminal board on the oscillator coil box, shown on Figure 7-11 or 7-14. Apply power to the receiver and adjust R116 (or R219) to obtain a 6.3 volt ±5 per cent meter reading. Then vary the a-c line voltage plus and minus ten per cent by varying the link connections with Rectifier Power Unit and note the readings. Allow about five minutes for stabilization after each change, before taking readings.

Now vary the adjustment of R116 (or R219) to obtain as constant heater voltage as possible for the variations in the a-c supply voltage, keeping the heater voltage within the limits of 6.3 volts, ±5 per cent.

If the line voltage variation was accomplished by changing the rectifier power unit link position, be sure to return it to its proper position.

(2) HETERODYNE OSCILLATOR ALIGNMENT, RBB/RBC.—An r-f signal generator capable of 30% modulation at 1,000 cycles is required for alignment of the heterodyne oscillator stage, V103 (V203). Generator frequencies are listed in Tables 7-19 and 7-20.

Panel controls should be adjusted as follows, after first placing the receiver so that it rests on the if/af side:

RECEPTION	— MOD
RADIO SELECTIVITY	— SHARP
GAIN	— 95 (approx.)
ANT. COMP.	—zero
OUTPUT LEVEL	— zero
SILENCER	— zero
FREQUENCY VERNIER	— zero
NOISE LIMITER	— OFF
AUDIO SELECTIVITY	— BROAD
ADD DECIBELS	— +20

Throw the POWER switch to ON.

In the following procedure, each band should be aligned in succession, first at the high-frequency (HF) end, then at the low-frequency (LF) end, followed by a final adjustment at the high-frequency end.

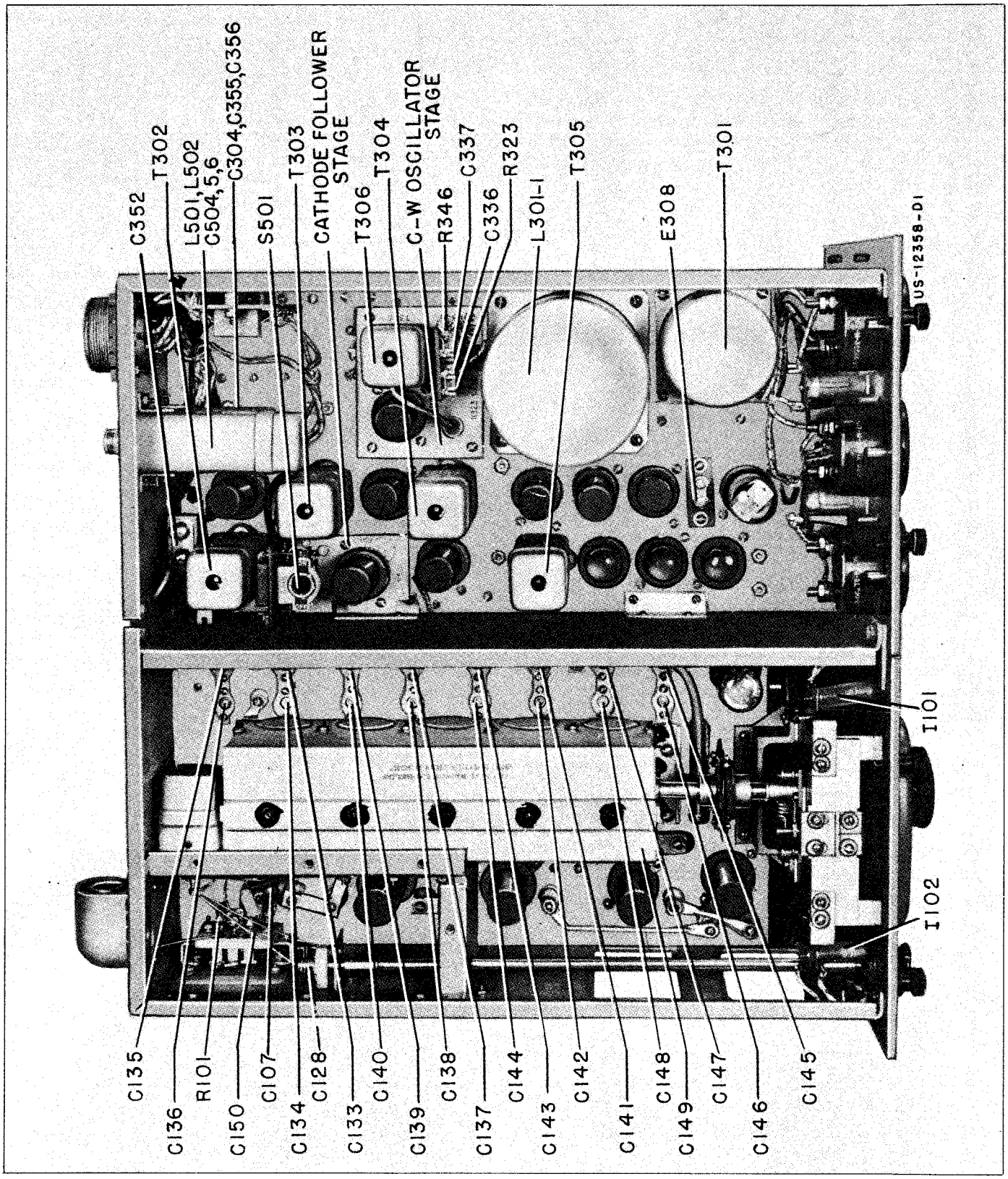


Figure 7-12. RBC Component Identification, Above Chassis

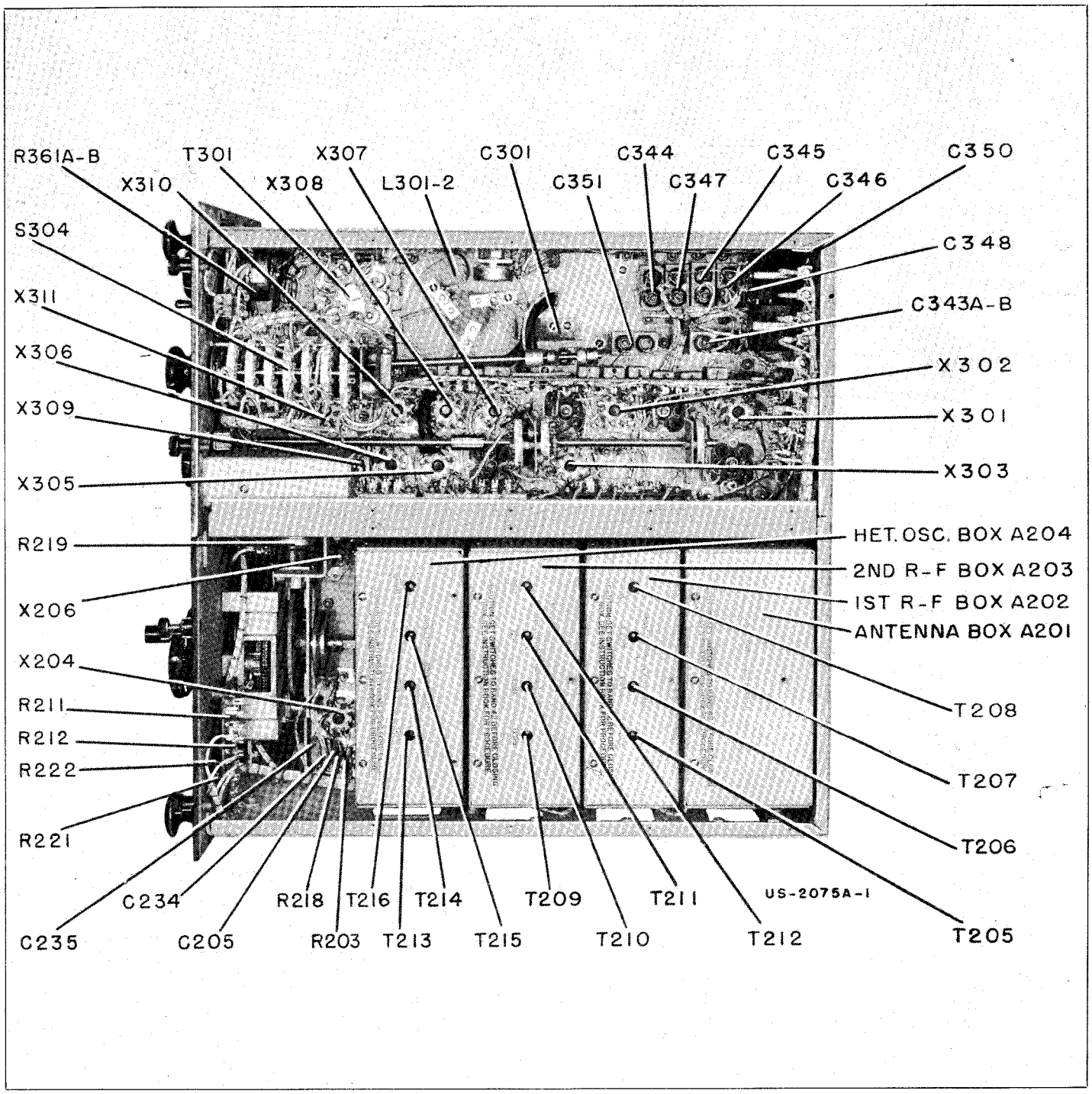


Figure 7-13. RBC Component Identification, Below Chassis

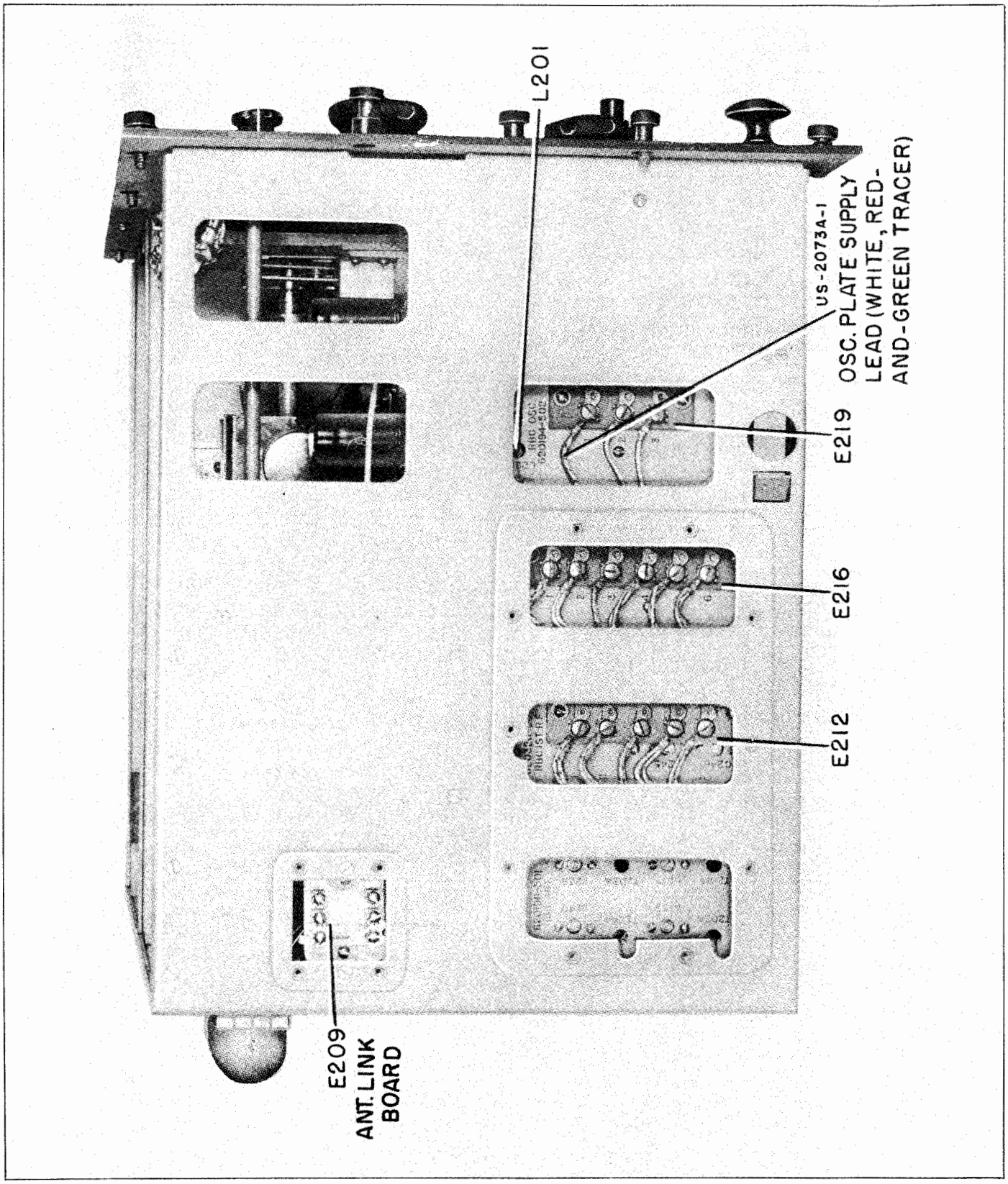


Figure 7-14. RBC Terminal Board Identification, Left Side—Shield Covers Removed

TABLE 7-19. HETERODYNE OSCILLATOR ALIGNMENT DATA—RBB

BAND	REC. DIAL AND GENERATOR FREQ.	ITEM ADJUSTED
1 HF	0.84 mc	C145
1 LF	0.5 mc	T113
2 HF	1.41 mc	C146
2 LF	0.84 mc	T114
3 HF	2.37 mc	C147
3 LF	1.41 mc	T115
4 HF	4.0 mc	C148
4 LF	2.37 mc	T116

TABLE 7-20. HETERODYNE OSCILLATOR ALIGNMENT DATA—RBC

BAND	REC. DIAL AND GENERATOR FREQ.	ITEM ADJUSTED
1 HF	6.45 mc	C253
1 LF	4.0 mc	T213
2 HF	10.3 mc	C254
2 LF	6.45 mc	T214
3 HF	16.5 mc	C255
3 LF	10.3 mc	T215
4 HF	27.0 mc	C256
4 LF	16.5 mc	T216

It will be noted on Tables 7-19 and 7-20 that the capacitor adjustments (HF) are above the chassis while the transformer core adjustments (LF) are below the chassis. Figures 7-9, 7-10, 7-12, and 7-13 indicate location of the components referenced.

Referring to Table 7-19 or 7-20, set the signal generator and the receiver dial to the high-frequency (0.84 mc or 6.45 mc) for Band 1. Adjust the generator for 1000-cycle modulation and connect the output to the antenna terminal. If the r-f system is misaligned it may be necessary to connect the generator output to the second r-f box input terminal. This terminal is located above the chassis, adjacent to V102 (V202), and is the ceramic-mounted terminal nearest to the ANT. COMP. shaft.

Adjust the output of the signal generator until the OUTPUT meter indicates zero db.

Adjust capacitor C145 (or C253) until the OUTPUT meter reading starts to rise. If the reading starts to fall, reverse the rotation of the adjustment screw.

Readjust the output of the signal generator until the OUTPUT meter again indicates zero db.

Repeat the two preceding steps until the OUTPUT meter indication fails to rise. Leave the indicator at zero db.

Set the signal generator and receiver tuning dial to the LF for Band 1, 0.5 megacycles (RBB) or 4.0 megacycles (RBC).

Adjust transformer T113 (or T213) until the OUTPUT meter reading starts to rise. If the reading starts to fall, reverse the rotation of the adjustment screw.

Readjust the output of the signal generator until the receiver OUTPUT meter again indicates zero db.

Repeat the two preceding steps until the OUTPUT meter indicator no longer rises.

Recheck alignment at the HF end of the band. This completes alignment of Band 1 in the oscillator stage.

In a similar manner align bands 2, 3, and 4, referring to the previously-mentioned illustrations and Tables 7-19 and 7-20. While aligning the oscillator, note that two responses are obtainable, corresponding to oscillator frequency settings either 400 kc above or below the signal frequency. The higher frequency setting is correct and may be checked in the following manner: After setting the oscillator, increase the input signal level and vary the input frequency 800 kc above and below the alignment frequency to obtain the image response. If the oscillator setting is correct, the image should be found at 800 kc above the alignment frequency.

(3) NEUTRALIZATION, HETERODYNE OSCILLATOR, RBC.—After aligning Band 4 in the RBC oscillator stage, a neutralizing adjustment is required. Panel control settings are the same as for oscillator alignment, except that the RECEPTION knob should be turned to CW and the RADIO SELECTIVITY switch to BROAD.

Throw the "POWER" switch to the ON position.

Apply an unmodulated, cw, 27-mc signal to the receiver antenna connection, of sufficient level to produce zero reading on the OUTPUT meter.

In the second r-f box, tune capacitor C252 through resonance, observing the output beat note variation.

Adjust L201 for minimum beat note variation. The core-adjusting screw of L201 is located on the side of the chassis, adjacent to terminal board E219, and is identified on Figure 7-14.

After completing this adjustment, realign the heterodyne oscillator for Band 4, as described in the preceding instructions for oscillator alignment.

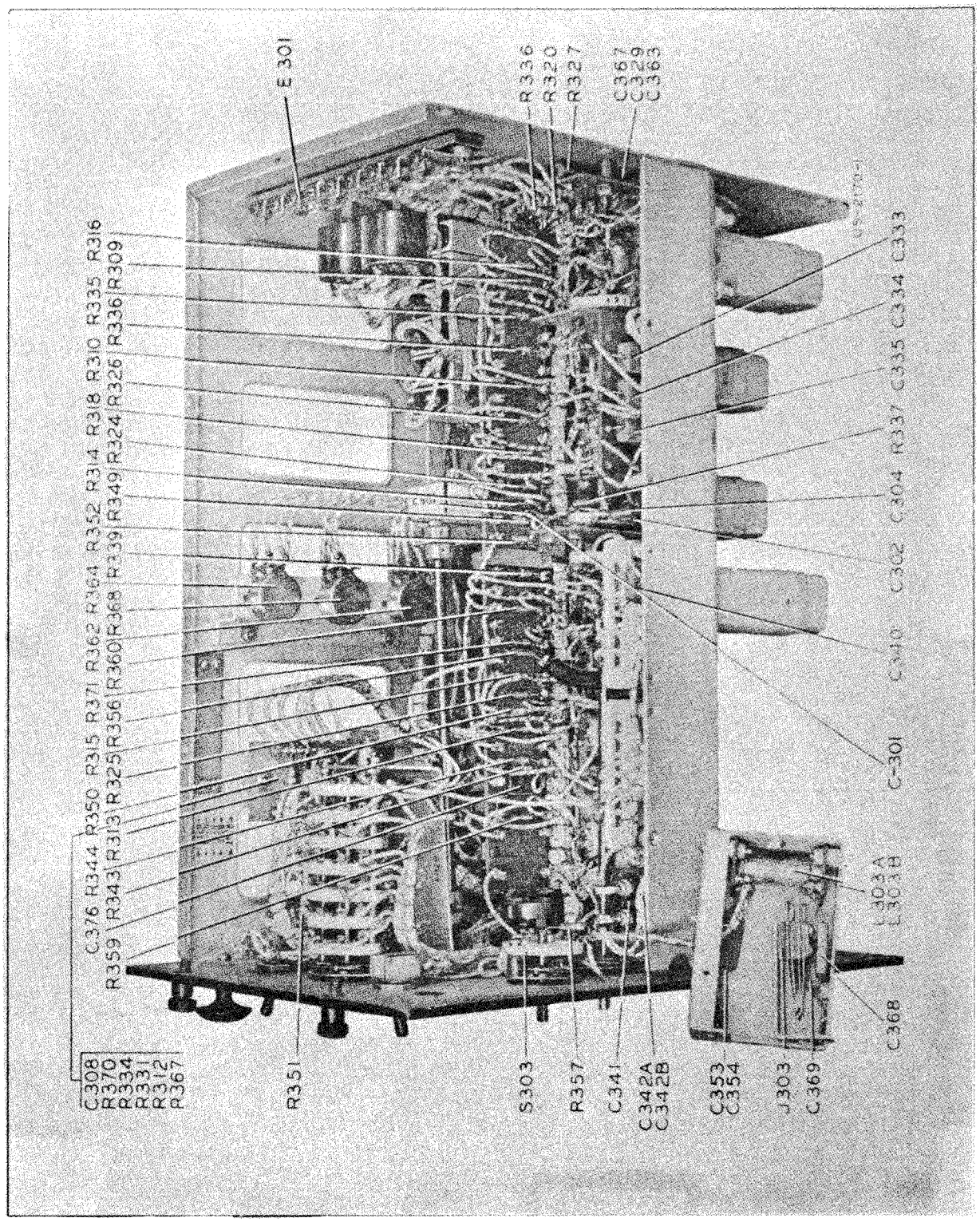


Figure 7-15. RBB/RBC—IF/AF Section, Component Identification, Below Chassis

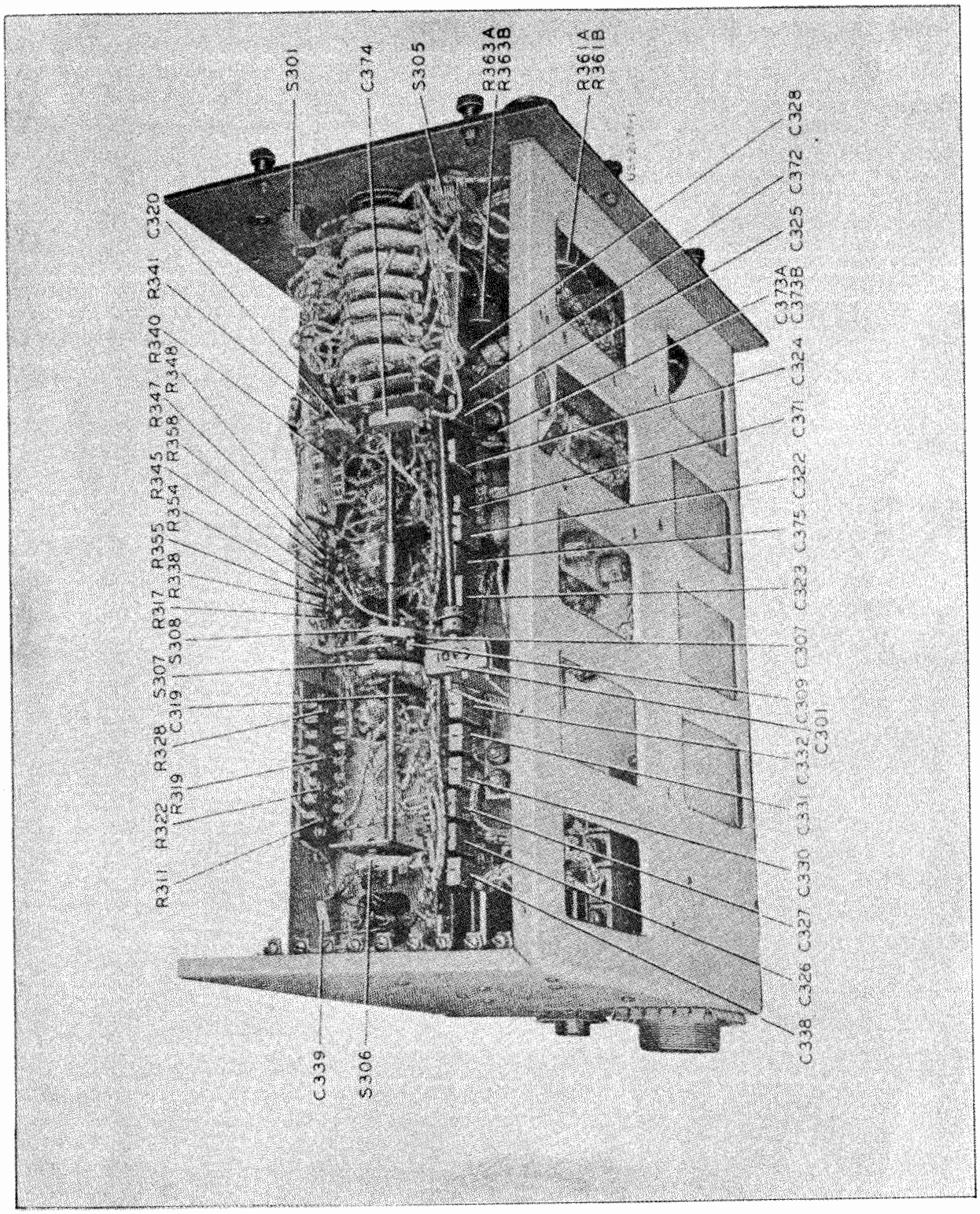


Figure 7-16. RBB/RBC–IF/AF Section, Component Identification, Below Chassis

(4) R-F AMPLIFIER ALIGNMENT, RBB/RBC.—The following notes cover instructions for alignment of the antenna input components and the r-f amplifier stages. Components to be adjusted are located in the antenna box and the first and second r-f boxes. A d-c voltmeter and an r-f signal generator are required, the generator capable of 1,000-cycle modulation at the frequencies specified in Tables 7-21 and 7-22.

Panel control settings for r-f amplifier alignment are as follows:

RECEPTION	— MOD
RADIO SELECTIVITY	— SHARP
FREQUENCY VERNIER	— zero
OUTPUT LEVEL	— zero
SILENCER	— zero
NOISE LIMITER	— OFF
AUDIO SELECTIVITY	— BROAD or SHARP
ANT. COMP.	— zero

Set the RBB and RBC antenna link board connections for single receiver operation from an antenna, as specified on Figure 3-11 or 3-12, in Section 3.

Operate the POWER switch to ON and, holding the ADD DECIBELS switch in the DIRECT position, adjust the GAIN control for zero reading on the OUTPUT meter. The GAIN setting should be approximately 95.

Now turn the ADD DECIBELS knob to +20.

Apply an r-f signal, at 1,000-cycle modulation, to the receiver input through a standard dummy antenna.

Adjust the generator output for zero reading on the OUTPUT meter.

Refer to Tables 7-21 and 7-22 and make the alignment adjustments listed. Location of items to be adjusted is shown on Figures 7-9 to 7-14.

(5) BAND-SPREAD ADJUSTMENTS, RBB.—After aligning Band 1 in the RBB, set the generator output and the tuning dial to 0.5 mc.

Turn the adjusting screw of T105 clockwise until the receiver output is decreased 1 db.

Turn the adjustment screw T109 counterclockwise until the receiver output is decreased 1 db.

Realign capacitors C137 and C141 at 0.84 mc.

This procedure supplies the necessary band spread in the RBB.

(6) I-F REJECTION ADJUSTMENT, RBB.—After the adjustments in preceding paragraphs (4) and (5) have been completed, the RBB i-f rejection adjustment should be made.

TABLE 7-21. R-F AMPLIFIER ALIGNMENT DATA—RBB

(Make HF adjustment first, then LF, and final adjustment at HF)

BAND	REC. DIAL AND GENERATOR FREQ.	ITEM ADJUSTED			
		ANTENNA BOX		1ST R-F BOX	2ND R-F BOX
		*ANTENNA	**LINK		
1 HF	0.84 mc	C129	C133	C137	C141
1 LF	0.5 mc	T101A	T101B	T105	T109
† 2 HF	1.41 mc	C130	C134	C138	C142
† 2 LF	0.84 mc	T102A	T102B	T106	T110
3 HF	2.37 mc	C131	C135	C139	C143
3 LF	1.41 mc	T103A	T103B	T107	T111
4 HF	4.0 mc	C132	C136	C140	C144
4 LF	2.37 mc	T104A	T104B	T108	T112

* Connect a 1,000-ohm resistor in parallel with C149-B while making the "Antenna" adjustments. (Section "A" of C149 is furthest from panel.)

** Connect a 1,000-ohm resistor in parallel with C149-A while making the "Link" adjustments.

† After aligning Band 1, and before aligning Band 2, perform the adjustments in the following notes, paragraph (5), "Band-Spread Adjustments, RBB."

TABLE 7-22. R-F AMPLIFIER ALIGNMENT DATA—RBC

(Make HF adjustment first, then LF, and final adjustment at HF)

BAND	REC. DIAL AND GENERATOR FREQ.	ITEM ADJUSTED			
		ANTENNA BOX		1ST R-F BOX	2ND R-F BOX
		ANTENNA	LINK		
1 HF	6.45 mc	C237	C241	C245	C249
1 LF	4.0 mc	T201A	T201B	T205	T209
2 HF	10.3 mc	C238	C242	C246	C250
2 LF	6.45 mc	T202A	T202B	T206	T210
3 HF	16.5 mc	C239	C243	C247	C251
3 LF	10.3 mc	T203A	T203B	T207	T211
4 HF	27.0 mc	C240	C244	C248	*C252
4 LF	16.5 mc	T204A	T204B	T208	T212

* For accurate alignment of C252, a d-c voltmeter should be connected from pin 5 of V204 to ground. Referring to Figure 7-14, remove the oscillator plate voltage. Apply a sufficient generator input to obtain a slight change in the indication on the voltmeter. Adjust capacitor C252 until maximum indication is obtained on the voltmeter.

After checking that the panel control settings are as specified in paragraph (4), reset the receiver dial to 0.5 mc.

Apply a 400-kc generator output, modulated 30% at 1000 cycles, to the receiver antenna input, through the dummy antenna. Generator output level should be approximately two volts.

Adjust the core of L101 for minimum output. Coil L101 is identified on Figure 7-11.

This completes the r-f amplifier alignment.

c. INPUT METER ADJUSTMENTS.—When the INPUT meter is used to measure signal input voltages, the meter adjustments should be checked frequently. Potentiometer R368, indicated on Figures 7-17 and 7-18, is used to set the operating level of the meter. An unmodulated r-f signal, at any reception frequency, is required for meter adjustment.

Controls and switches on the panel should be set as follows:

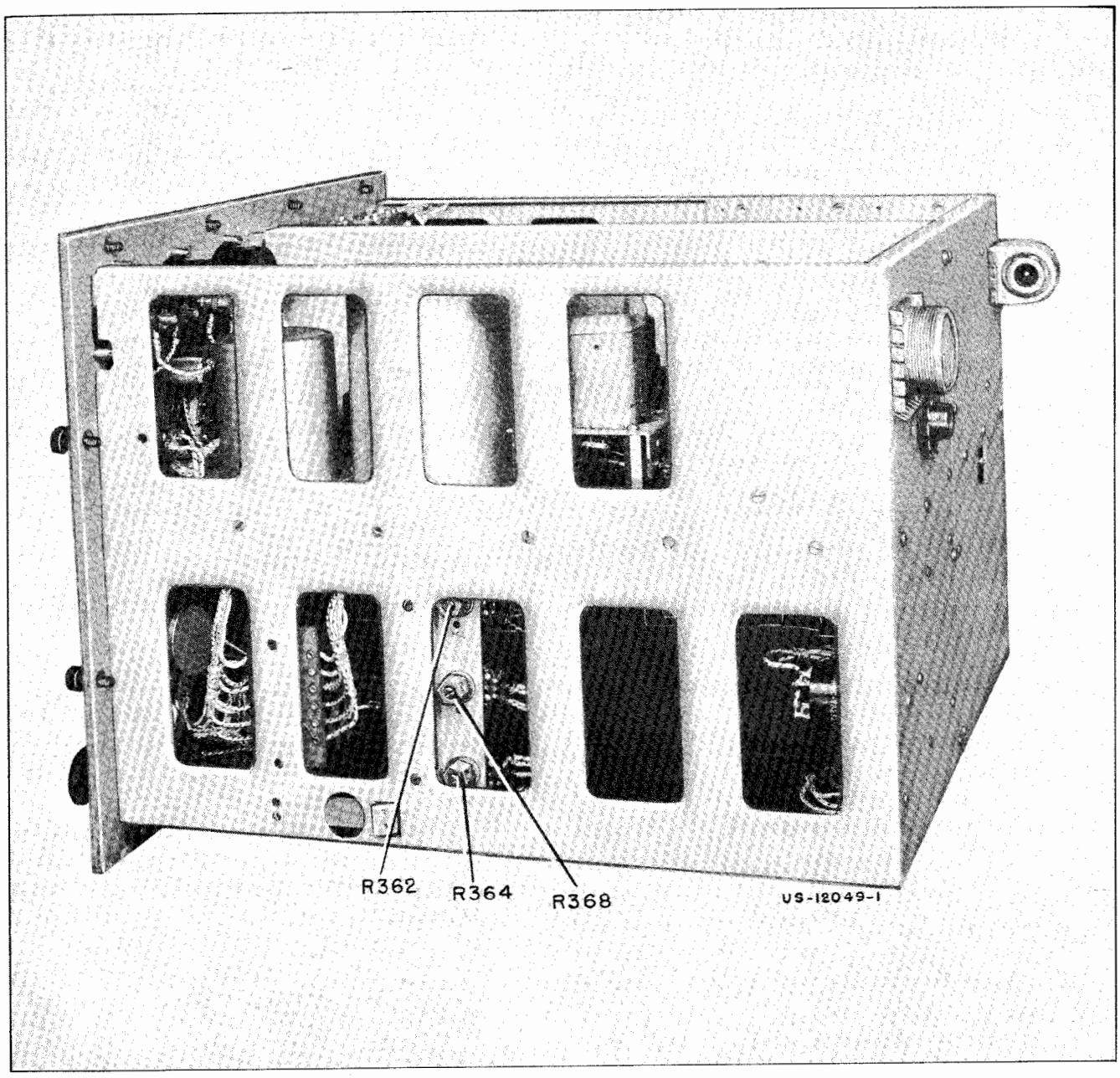


Figure 7-17. RBB/RBC Component Identification, Right Side

RADIO SELECTIVITY	— SHARP
RECEPTION	— MOD-AVC
ANT. COMP.	— zero
FREQUENCY VERNIER	— zero
GAIN	— zero
SILENCER	— zero
OUTPUT LEVEL	zero
NOISE LIMITER	— OFF
ADD DECIBELS	— OFF

Operate the POWER switch to ON.

Without a signal input, adjust the ZERO SET knob (R321) for zero reading on the INPUT meter.

Connect an r-f signal generator to the antenna terminal, through a dummy antenna. Adjust the generator for a 10,000-microvolt output at any reception frequency.

After unlocking the shaft nut on R368, Figure 7-17, rotate the shaft for a deflection of 80 db on the INPUT meter. Tighten the lock nut.

Repeat the two preceding adjustments until the meter reading is correct at both points.

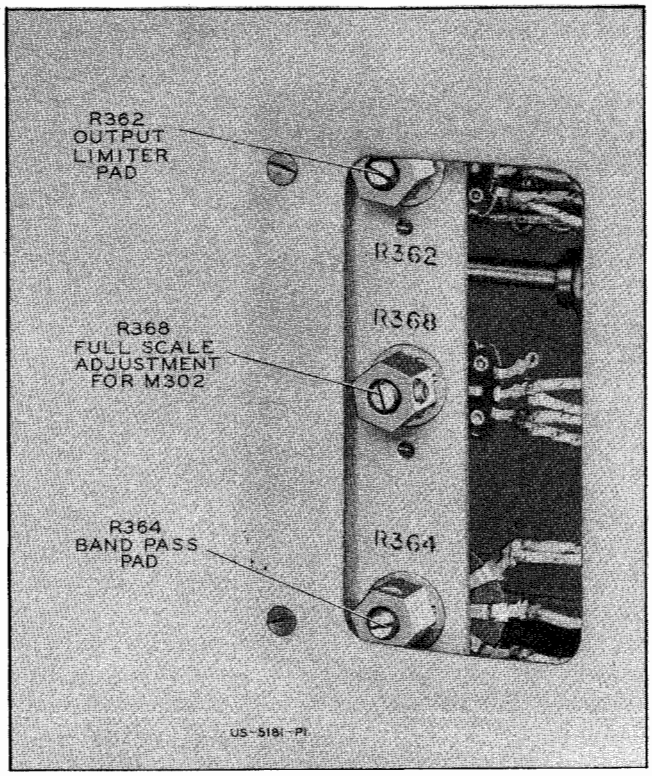


Figure 7-18. RBB/RBC Potentiometers R362, R364, and R368

d. WINDING DATA.—See Table 7-23.

5. MECHANICAL MAINTENANCE.

a. SEPARATION OF PRESELECTOR AND IF/AF SECTIONS.—To separate the preselector and if/af sections, remove the chassis from its case and proceed as follows:

Remove the two shields from the preselector side of the chassis.

Disconnect the power leads from terminal board E301, identified on Figure 7-15.

Turn the receiver so that the right side is up.

Referring to Figure 7-19, disconnect the lead located on top of the receiver.

Disconnect the link connecting the two units, Figure 7-19.

Remove the two screws from each of the two support brackets.

Remove the five screws located on the left-hand side of the if/af front panel.

Remove the four screws located on the rear center of the receiver, Figure 7-20. This will allow the two sections to be separated. The intermediate partition will remain on the preselector section.

This separation procedure, which may be necessary for extensive servicing, is not required for the removal steps which follow.

b. PARTS REMOVAL, PRESELECTOR, RBB/RBC.

(1) REMOVAL OF R-F BOXES, RBB/RBC.—To remove any or all of the r-f boxes, proceed as follows:

Place the chassis on its right side, with the if/af section on the bottom.

Remove the bottom shield plate on the preselector section.

Turn the band switch to Band 2.

Loosen the band switch coupling set-screw.

Pull out the square band switch shaft located at the rear of the receiver chassis, Figure 7-20. Use a No. 6-32 screw in the end of the shaft, to expedite removal.

CAUTION

Do not twist or turn the shaft while removing it.

Remove the large shield on the side of the preselector section. It is necessary to take off this cover when removing the r-f boxes on the Model RBC receiver and when removing the r-f boxes or antenna box on the RBB equipment.

Loosen the terminal board screws on the left side of the chassis, to allow removal of the spade terminals. Refer to Figure 7-11 or 7-14 for the boards referred to.

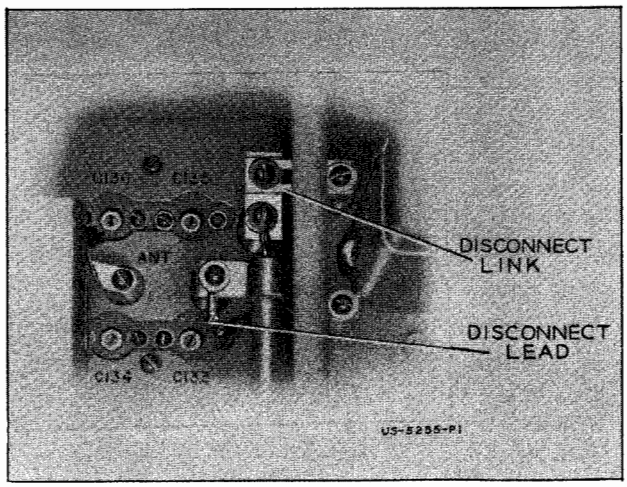


Figure 7-19. RBB/RBC Disassembly, Top View —Center Rear

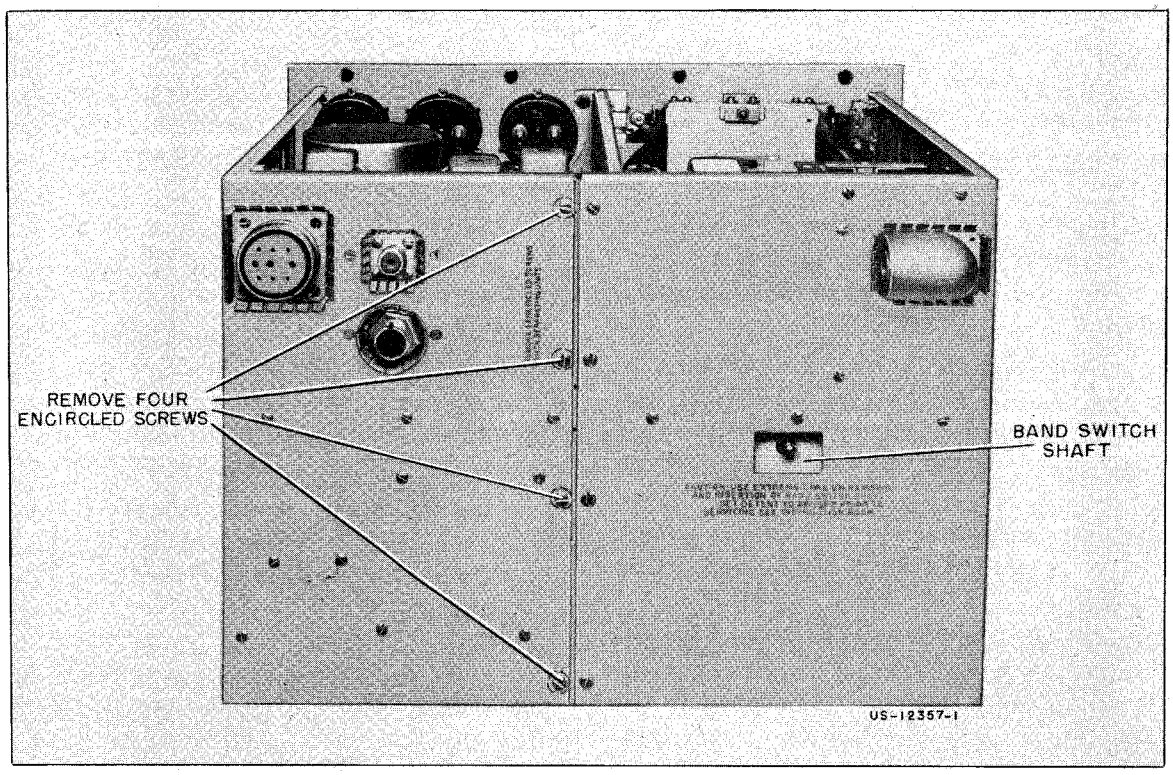


Figure 7-20. RBB/RBC Disassembly, Rear View

Remove the screws connecting gang capacitor C149 (C257) and interbox straps to the box posts. There are from three to six screws per box.

The preceding steps do not necessarily have to be followed in the order given, but the four screws holding each box to the chassis should be removed last. This will allow the box to be removed from the bottom of the unit.

The RBB r-f boxes and related connection diagrams are shown on Figures 7-22 to 7-29; those for the RBC are illustrated on Figures 7-30 to 7-37.

(2) REPLACEMENT OF R-F BOXES, RBB/RBC.—To replace an r-f box, first make sure that the dial mechanism is set on Band 2 and that the switch rotor is in the Band 2 position as shown on Figure 7-21. Switches must be properly oriented in accordance with the above instructions before removing or inserting the switch shaft.

Place the box against the bottom of the chassis. Insert the four mounting screws from the top, but do not tighten them completely.

Carefully insert the switch shaft through the boxes. It may be necessary to rotate the shaft a few degrees or an amount sufficient for the shaft to go through the wafers in the boxes and enter the coupling in the dial mechanism. It may also be necessary to shift a box sidewise slightly, to allow free movement of the shaft. After the shaft is in place, tighten the four mounting screws and coupling set-screw.

Remainder of the box installation procedure is the reverse of the removal instructions in the preceding paragraph.

(3) WAFER REPLACEMENT IN BAND SWITCH, RBB/RBC.—To replace or repair a wafer in band switches S101 to S105 (S201 to S205), it is necessary to remove the affected box as outlined in preceding paragraph 5*b*(1), then to remove the screws which hold the cover on the box.

The number of wafers per box varies — one per box for the r-f boxes, two per box for the oscillator and RBB antenna box, or three per box for the RBC antenna box.

Most switch rotor repairs may best be accomplished by taking out the mounting screws and removing the component parts completely wired. This requires unsoldering only a few wires such as those connected to the r-f terminal screws which go through the top of the box.

Switch rotors may then be removed by pushing the "C" washer from the rotor hub. Twisted rotor contact arms should be reformed and bent in such a

manner that the contact face of the silver button is between ¼ and $^{9}/_{32}$ of an inch from the mounting surface the contact arm. This insures sufficient contact pressure when the rotor is replaced. Silver contacts on the rotor arms must seat near the center of the stator contact.

If the switch wafer is replaced as a unit, unsolder all connections to the wafer, noting the position of the wires so that they may be replaced in the same positions.

When reassembling a switch, check to see that the double-contact rotor section is on the stator segment having five contact buttons. The longer contact arm contact should be on the center stator contact. In this position, Band 2, the square shaft hole in the rotor center has the diagonals or corners of the square holes parallel to or at right angles to the top of the wafer.

Reassemble all the component parts, leaving the mounting screws loose in order to permit alignment of the switch wafer or wafers with those in the rest of the set. The wafer mounting screws should be just tight enough to hold the wafers.

Place the box in the receiver chassis, fastening it with two screws. Insert the shaft through the boxes, shifting the wafer or box as necessary to align the wafer rotor.

Remove the shaft and box carefully. Tighten the wafer screws and those for the remainder of the components. If an entire wafer is replaced, this procedure should be followed before the leads are resoldered.

(4) REMOVAL OF TUNING CAPACITOR ASSEMBLY, RBB/RBC.—The gang tuning capacitor, C149 (C251), is constructed of low-temperature-coefficient material and is rigidly mounted at the front end, with an expansion or spring-tension mounting at the rear.

CAUTION

Do not remove the external shield cover from the tuning capacitor assembly. This cover cannot be removed without disturbing the alignment.

To remove the capacitor assembly, set the tuning dial at zero and loosen the coupling set-screws. Remove the screw connections to the r-f boxes and the three mounting screws. Loosen the screws holding the spring contact at the top rear. Lift the assembly out of the chassis.

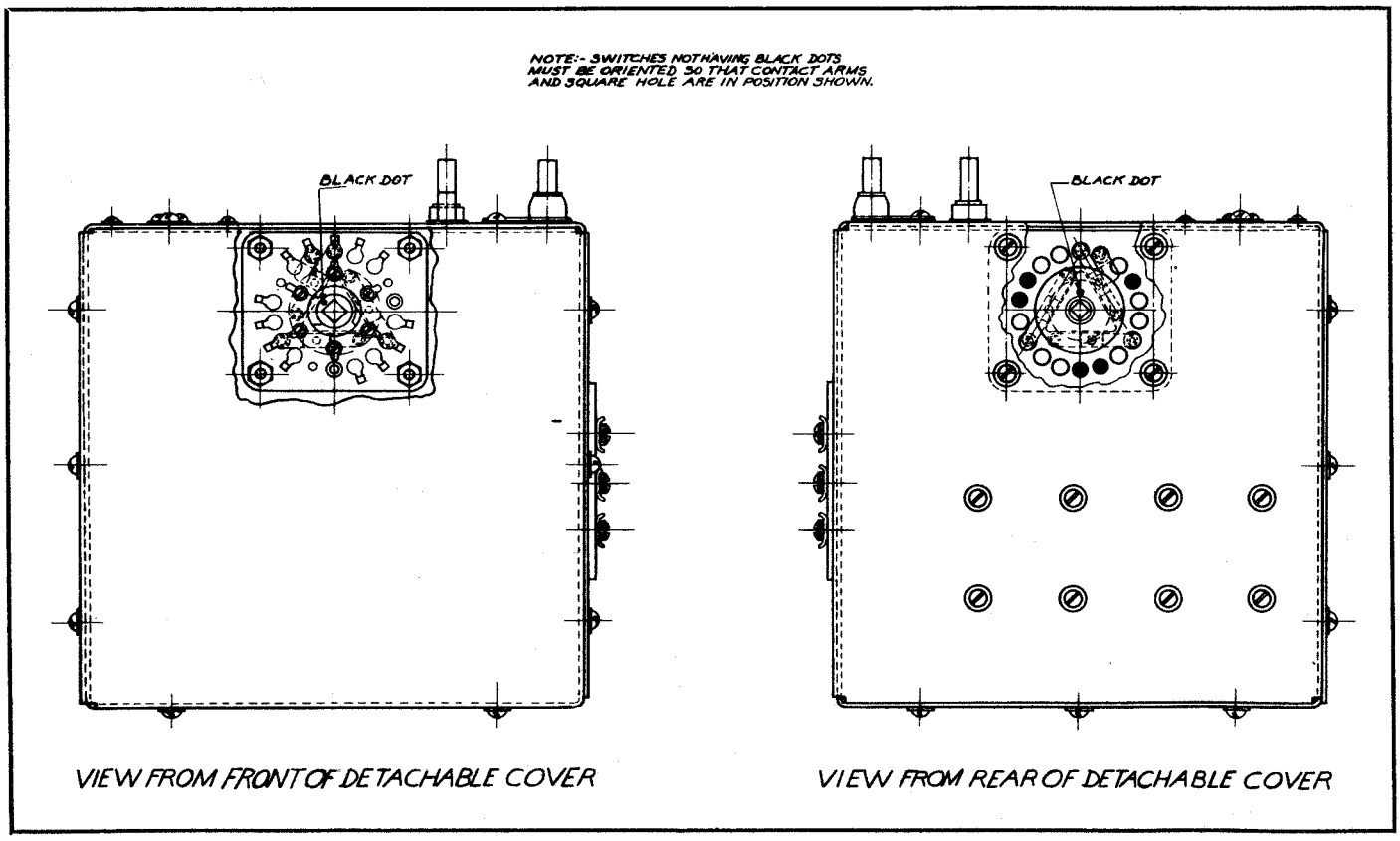


Figure 7-21. RBB/RBC, R-F Box Removal—Board Switch in No. 2 Position

Extreme care must be exercised in handling the tuning capacitor assembly so as not to disturb its precision alignment. Inspection openings fitted with snap covers are provided along the sides of the unit.

To replace the gang capacitor, set it carefully in place. Insert the mounting screws, leaving the front two loose. Mount the front of the capacitor in such a manner that the coupling will slide from the dial shaft to the capacitor shaft without binding. Be sure to replace shims if any were used.

To reset the coupling, tighten the set-screws on the capacitor shaft, so that approximately half of the coupling is over the end of each shaft. Set the dial mechanism against the zero stop.

Rotate the capacitor shaft slowly clockwise until it stops. Do not rotate the dial mechanism far enough to force it beyond this stop.

Lift the dial mechanism stop-arm roller from the lower outside edge of the large dial and set the linear dial two divisions beyond the stop point. With the dial mechanism in this position, hold the gang capacitor against its stop and tighten the coupling set-screws. In this position, the dial mechanism should engage the stops located at both ends of the linear scale, before the limits of the gang capacitor travel are reached. Indication on the calibrated scales should be correct. Turn back the dial mechanism beyond zero to re-engage the stop.

(5) REMOVAL OF DIAL MECHANISM, RBB/RBC.—Removal of the tuning dial mechanism requires first that the preselector and if/af sections be separated as described in paragraph 5*a*. Next, the mechanism and front panel must be removed from the chassis.

To remove the front panel, loosen the set-screws on the antenna trimmer shaft coupling, on the main tuning capacitor, and on the band switch shaft coupling.

Remove the three screws that secure the dial support casting to the chassis. Remove the dial lamps from their brackets, and the resistor board from the front panel, allowing them both to be supported by the wiring only. If it is necessary to reach the screw that mounts the resistor board, remove the nameplate.

Remove the six screws and the pull-knob. After the panel has been removed from the chassis, detach the dial mechanism from the panel as follows:

Remove the dial escutcheon, the band-switch knob, the tuning-shaft knob, and the four mounting screws.

Set the linear scale at zero, and mark the meshing teeth with a pencil line.

Remove the two screws that hold the thin plate on each side of the tuning knob shaft, and remove the taper pin from the mask hub.

Detach the mask from its shaft.

Lay the index line and plate over the top of the housing, or remove it entirely. This will protect the wire from possible damage.

Pull out the center dial and gear assembly, which will expose all the gears and mechanism.

To reassemble the center gears and dials, reset the split gear tensions by compressing the gear springs approximately one tooth. Carefully remesh the teeth at the former setting. This will cause the stop to operate at zero on the linear scale.

Reassemble the index plate, making sure that the mounting hole clears the hub bushing.

Adjust the wire tension taut, and repin the dial mask.

Assemble the dial mechanism to the front panel with all the screws left loose; the panel should be assembled to the chassis.

The switch and capacitor shafts must then be lined up. This may be accomplished by moving the mechanism slightly until the gang capacitor coupling slides readily over the shafts, and the square switch shaft slides directly into its coupling. After tightening all mounting screws, both the dial drive and band switch drive should turn without evidence of binding.

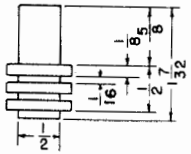
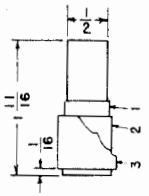
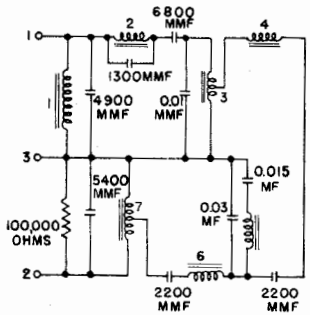
c. PARTS REMOVAL, IF/AF SECTION, RBB/RBC.

(1) CW OSCILLATOR REMOVAL, RBB/RBC.—The cw oscillator is mounted on a separate sub-assembly on top of the if/af section. To remove the oscillator, unsolder the two connections and a shield ground from a small terminal board, and the single connection from the lower, inner terminal of the resistor-capacitor board. Then loosen the set-screws in the insulating coupling, and take out the four chassis screws.

Replace the sub-assembly in the reverse order, tightening the coupling set-screw, and turning the control knob to insure line-up before tightening the four mounting screws. With the FREQUENCY VERNIER knob set to 10 in the counterclockwise position, the plates of capacitor C301 should be fully meshed.

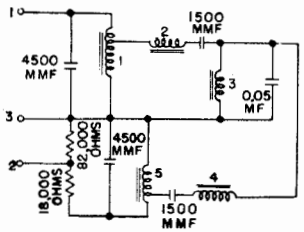
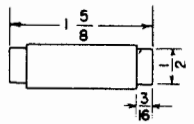
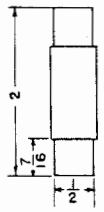
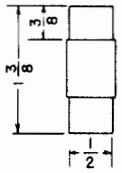
(2) CATHODE FOLLOWER REMOVAL, RBB/RBC.—The cathode follower stage is also installed on a separate sub-assembly. To remove this assembly, take out tube V501. Remove the four screws and lockwashers fastening the assembly to the chassis. Disconnect all connections at the chassis, labeling the wires as removed. The assembly can now be lifted out of the chassis.

TABLE 7-23. WINDING DATA, RBB/RBC AND RECTIFIER POWER UNIT

SYMBOL DESIGNATION	RCA PART NO.	DIAGRAM	WINDING	WIRE SIZE	TURNS	DC RESISTANCE IN OHMS	REMARKS
L101	K-856759-501		Three sections, each section universal wound, 4 crosses per section	30 strands No. 44 Litzendraht SS	50, each section		Hipot ac volts: 3,000
L201	K-865480-501		Three windings: #1, single layer, right-hand, close wound #2, single layer, right-hand, close wound #3, close wound	 No. 30 SSE No. 24 SSE No. 24 SSE	 12±1/2 29½ 29½		
L301-1	K-901008-501			Coils: #1, No. 38 enameled #2, No. 40 enameled #3, No. 37 enameled #4, No. 40 enameled #5, No. 37 enameled #6, No. 40 enameled #7, No. 38 enameled	 3,500 5,400 2,700 tapped at 900 5,400 2,700 5,400 3,500 tapped at 1,170	 450 1,170 275 1,170 275 1,170 450	Hipot ac volts: 1,500 Coil Inductances: 4.72 henries 11.4 henries 2.42 henries 11.9 henries 2.68 henries 11.9 henries 4.63 henries

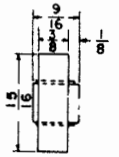
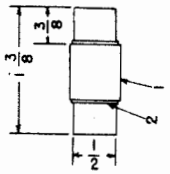
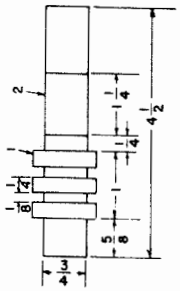
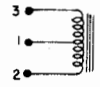
(Continued)

TABLE 7-23. WINDING DATA, RBB/RBC AND RECTIFIER POWER UNIT—(Continued)

SYMBOL DESIGNATION	RCA PART NO.	DIAGRAM	WINDING	WIRE SIZE	TURNS	DC RESISTANCE IN OHMS	REMARKS
L301-2	K-901009-501			Coils: #1, No. 39 enameled #2, No. 41 enameled #3, No. 33 enameled #4, No. 41 enameled #5, No. 39 enameled	 4,300 tapped at 1,830 6,600 1,100 6,600 4,300 tapped at 1,830	 718 1,750 45 1,750 718	Hipot ac volts: 1,500 Inductances: 5.65 henries 16.9 henries 0.506 henries 16.9 henries 5.65 henries
L303	K-865413-501		Two windings, wound together in bifilar, single layer, right-hand, close wound	No. 28 DC	30, each winding		
L304	M-421251-502		Two windings, wound together in bifilar, single layer, right-hand, close wound	No. 28 DC	25, each winding		
L305	K-865458-501		Single layer, right-hand, close wound	No. 28 DC	25		Hipot ac volts: 3,000

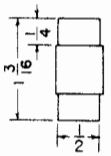
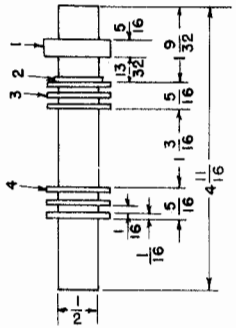
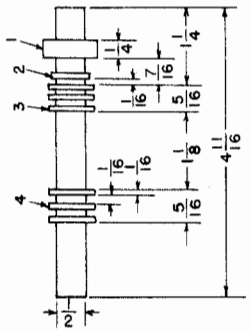
(Continued)

TABLE 7-23. WINDING DATA, RBB/RBC AND RECTIFIER POWER UNIT—(Continued)

SYMBOL DESIGNATION	RCA PART NO.	DIAGRAM	WINDING	WIRE SIZE	TURNS	DC RESISTANCE IN OHMS	REMARKS
L306, L307	K-900676-504		Four layers	No. 16 enameled	23½	0.019	
L308	K-865458-502		Two coils, both single layer, right-hand, close wound	No. 28 DC	‡1, 24 ‡2, 25		Hipot ac volts: 3,000
L401, L402, L403, L404	K-826863-502		Two windings: ‡1, 3 sections, universal wound, 2 crosses per turn ‡2, single layer, close wound	No. 22, SS each winding	50 each section 40		
L405, L406	B-900934-502		Single	No. 27	3,150 tapped at 3,081	106	Hipot ac volts: 1,500 Inductance 10 henries. Current rating 170 ma

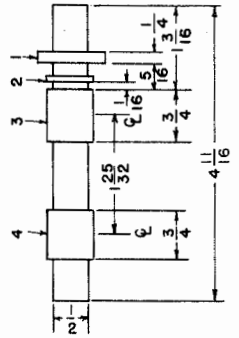
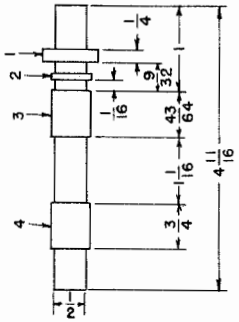
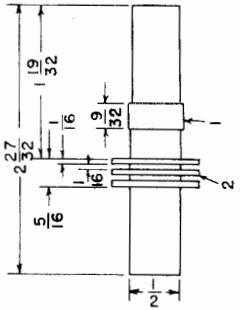
(Continued)

TABLE 7-23. WINDING DATA, RBB/RBC AND RECTIFIER POWER UNIT—(Continued)

SYMBOL DESIGNATION	RCA PART NO.	DIAGRAM	WINDING	WIRE SIZE	TURNS	DC RESISTANCE IN OHMS	REMARKS
L501, L502	K-890737-501		Space wound, 80 turns per inch, right-hand	No. 30 enameled	55		Inductance 22 microhenries ±10% at 1,000 cycles
T101	P-720559-501		Four coils: #1, universal wound, 2 crosses per turn #2, close wound, single layer #3 and #4, three sections each coil: each section universal wound, 6 crosses per turn	#1 and #2, No. 24 single glass silicone covered 30 strands, No. 44 Litzendraht SS	205 7⅛ 57 each section		
T102	P-720559-502		Four coils: #1, universal wound, 2 crosses per turn #2, close wound, single layer #3 and #4, three sections each coil: each section universal wound, 6 crosses per turn	#1 and #2, No. 24 single glass silicone covered 30 strands, No. 44 Litzendraht SS	126 5½ 33 each		

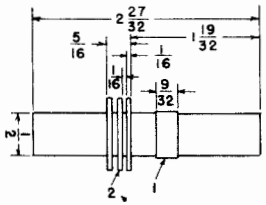
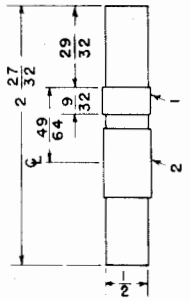
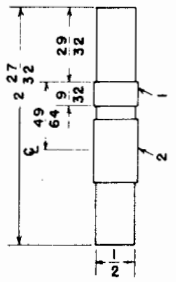
(Continued)

TABLE 7-23. WINDING DATA, RBB/RBC AND RECTIFIER POWER UNIT—(Continued)

SYMBOL DESIGNATION	RCA PART NO.	DIAGRAM	WINDING	WIRE SIZE	TURNS	DC RESISTANCE IN OHMS	REMARKS
T103	P-720559-503		Four coils: #1 universal wound, 2 crosses per turn #2, close wound, single layer #3 and #4, progressive wound, 100 turns per inch, 0.188 throw 6 crosses per turn	#1 and #2, No. 24 single glass silicone covered 30 strands, No. 44 Litzendraht SS	74 5¾ 75 each		
T104	P-720559-504		Four coils: #1 universal wound, 2 crosses per turn #2, close wound, single layer #3 and #4, 60 turns per inch, single layer	#1 and #2, No. 24 single glass silicone covered 30 strands, No. 24 Litzendraht SS	40 6½ #3, 40 #4, 45		
T105	M-420939-501		Two coils: #1, single layer, 5/32" wide #2, 3 sections, universal wound, 6 crosses per turn	No. 30 DSE 30 strands, No. 44 Litzendraht SS	20 57 turns per section		

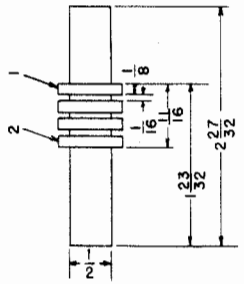
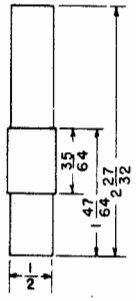
(Continued)

TABLE 7-23. WINDING DATA, RBB/RBC AND RECTIFIER POWER UNIT—(Continued)

SYMBOL DESIGNATION	RCA PART NO.	DIAGRAM	WINDING	WIRE SIZE	TURNS	DC RESISTANCE IN OHMS	REMARKS
T106, T110	M-420939-502		Two coils: #1, single layer, 19/32" wide #2, 3 sections, universal wound, 6 crosses per turn	No. 30 DSE 30 strands, No. 44 Litzendraht SS	20 33 turns per section		
T107, T111	M-420939-503		Two coils: #1 single layer, 19/32" wide #2, progressive wound, 100 turns per inch, 0.188 throw	No. 30 DSE 30 strands, No. 44 Litzendraht SS	20 70		
T-108	M-420939-504		Two coils: #1 single layer, 19/32" wide #2, progressive wound, 100 turns per inch, 0.188 throw	No. 30 DSE 30 strands, No. 44 Litzendraht SS	20 40		

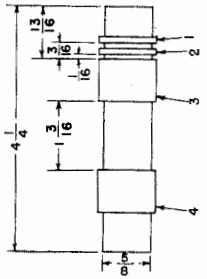
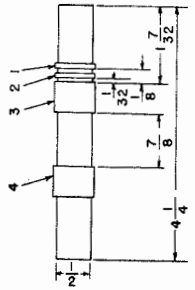
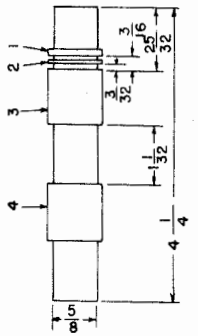
(Continued)

TABLE 7-23. WINDING DATA, RBB/RBC AND RECTIFIER POWER UNIT — (Continued)

SYMBOL DESIGNATION	RCA PART NO.	DIAGRAM	WINDING	WIRE SIZE	TURNS	DC RESISTANCE IN OHMS	REMARKS
T113	M-420951-501		Two coils: #1, 3 sections, universal wound, 4 crosses per turn #2, universal wound, 4 crosses per turn	#1 and #2, 30 strands, No. 44 Litzendraht SS	each section 31 turns; section 1 tapped at 10 turns, section 3 tapped at 10 turns #2, 30 turns		
T114	M-420951-502	Same as T113	Two coils: #1, 3 sections, universal wound, 4 crosses per turn #2, universal wound, 4 crosses per turn	#1 and #2, 30 strands, No. 44 Litzendraht SS	each section 20 turns; section 1 tapped at 6 turns, section 3 tapped at 8 turns #2, 22 turns		
T115	M-420951-503	Same as T113	Two coils: #1, 3 sections, universal wound, 4 crosses per turn #2, universal wound, 4 crosses per turn	#1 and #2, 30 strands, No. 44 Litzendraht SS	each section 13 turns; section 1 tapped at 6 turns; section 3 tapped at 4 turns #2, 15 turns		
T116	M-420951-504		Single layer, 35/64" wide	30 strands, No. 44 Litzendraht SS	32 turns, tapped at 4 and 16 turns		

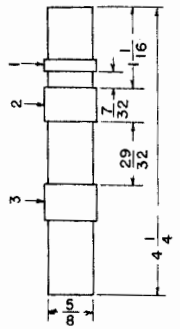
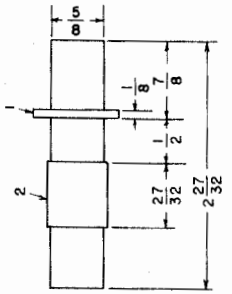
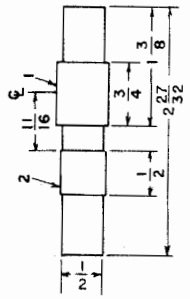
(Continued)

TABLE 7-23. WINDING DATA, RBB/RBC AND RECTIFIER POWER UNIT—(Continued)

SYMBOL DESIGNATION	RCA PART NO.	DIAGRAM	WINDING	WIRE SIZE	TURNS	DC RESISTANCE IN OHMS	REMARKS
T201	P-720560-501		Four coils: #1 and #2, close wound, single layer #3 and #4, 32 turns per inch	No. 24 single glass silicone covered No. 24 DC	#1, 8 #2, 3¼ #3, 27 #4, 26		
T202	P-720560-502		Four coils: #1 and #2, close wound, single layer #3 and #4, 32 turns per inch	No. 24 single glass silicone covered No. 24 DC	#1, 4⅔ #2, 2½ #3, 16 #4, 16		
T203	P-720560-503		Four coils: #1 and #2, close wound, single layer #3 and #4, 12 turns per inch	No. 24 single glass silicone covered No. 14 enameled	#1, 4⅔ #2, 2¼ 10¾ each		

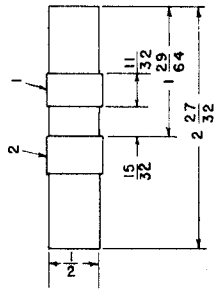
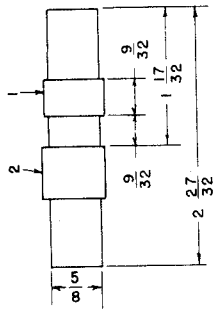
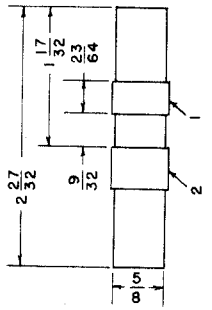
(Continued)

TABLE 7-23. WINDING DATA, RBB/RBC AND RECTIFIER POWER UNIT—(Continued)

SYMBOL DESIGNATION	RCA PART NO.	DIAGRAM	WINDING	WIRE SIZE	TURNS	DC RESISTANCE IN OHMS	REMARKS
T204	P-720560-504		Three coils: #1, close wound, single layer #2 and #3, 8 turns per inch	No. 24 single glass silicone covered No. 12 tinned	4 tapped at 1¾ #2, 5¼ #3, 4¾		
T205, T209	M-420940-501		Two coils: #1, universal wound, 4 crosses per turn #2, single layer $^{27}/_{32}$" wide	No. 30 DSE No. 24 DC	96 27		
T206, T210	M-420940-502		Two coils: #1, progressive wound, 150 turns per inch, 6 crosses per turn, ⅛" throw #2, single layer, ½" wide	No. 30 DSE No. 24 DC	110 16		

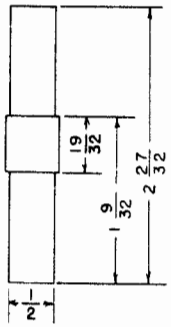
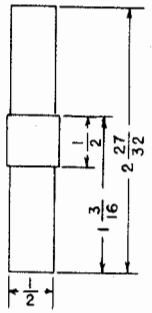
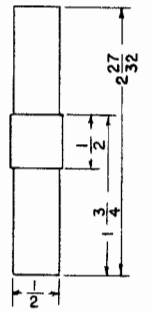
(Continued)

TABLE 7-23. WINDING DATA, RBB/RBC AND RECTIFIER POWER UNIT—(Continued)

SYMBOL DESIGNATION	RCA PART NO.	DIAGRAM	WINDING	WIRE SIZE	TURNS	DC RESISTANCE IN OHMS	REMARKS
T207, T211	M-420940-503		Two coils: #1, progressive wound, 150 turns per inch, 6 crosses per turn, 1/8" throw #2, 16 turns per inch	No. 30 DSE No. 16 enameled	49 11¼		
T208	M-420940-504		Two coils: #1, single layer, 9/32" wide #2, 8 turns per inch	No. 30 SSE No. 12 tinned	21¾ 4¾		
T212	M-420940-505		Two coils: #1, single layer, 23/64" wide #2, 8 turns per inch	No. 30 SSE No. 12 tinned	27¾ 4¼		

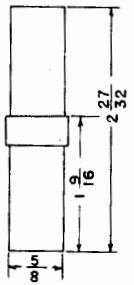
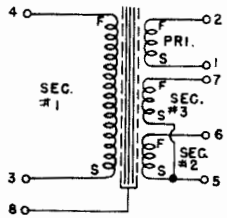
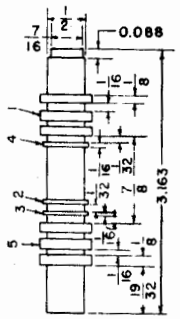
(Continued)

TABLE 7-23. WINDING DATA, RBB/RBC AND RECTIFIER POWER UNIT—(Continued)

SYMBOL DESIGNATION	RCA PART NO.	DIAGRAM	WINDING	SIZE	TURNS	DC RESISTANCE IN OHMS	REMARKS
T213	M-420957 501		Single layer, 19/32" wide	No. 28 DC	29, tapped at 7¾ and 17¾		
T214	M-420957-502		Single layer, ½" wide	No. 24 DC	15½, tapped at 3¾ and 8¾		
T215	M-420957-503		Single layer, ½" wide	No. 18 DC	9½, tapped at 2¾ and 6¾		

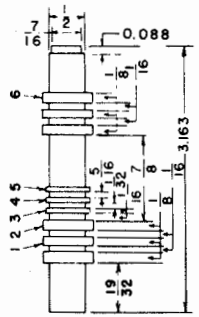
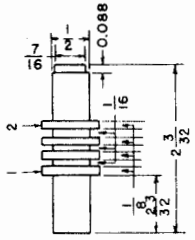
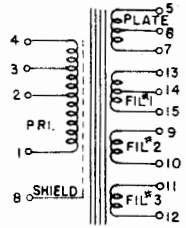
(Continued)

TABLE 7-23. WINDING DATA, RBB/RBC AND RECTIFIER POWER UNIT—(Continued)

SYMBOL DESIGNATION	RCA PART NO.	DIAGRAM	WINDING	WIRE SIZE	TURNS	DC RESISTANCE IN OHMS	REMARKS
T216	M-420957-504		Single layer, close wound	No. 14 DC	3¾, tapped at 1⅞		
T301	K-901010-501		Primary, term 1-2 Secd. #1, term 3-4 Secd. #2, term 5-6 Secd. #3, term 6-7	No. 35 enameled No. 31 enameled No. 25 enameled No. 25 enameled	3,600 450 71 71	450 16.5 1.1 1.1	Hipot ac volts: 1,500 volts Primary impedance, 5,000 ohms minimum at 3 volts 60 cycles and 0.018 ampere dc.
T302, T303, T304	P-720561-504, 5, 6		Five coils: #1 and #5, 3 sections each, universal wound, 4 crosses per turn #2 and #3, universal wound, 6 crosses per turn #4, close wound	30 strands No. 44 Litzendraht SS No. 30 SSE No. 30 SSE	Three sections per coil, 50 turns each section 14 each 3		

(Continued)

TABLE 7-23. WINDING DATA, RBB/RBC AND RECTIFIER POWER UNIT—(Continued)

SYMBOL DESIGNATION	RCA PART NO.	DIAGRAM	WINDING	WIRE SIZE	TURNS	DC RESISTANCE IN OHMS	REMARKS
T305	P-720561-503		Six coils: #1, 2 sections, universal wound, 4 crosses per turn #2, universal wound, 4 crosses per turn #3, #4, #5, universal wound, 6 crosses per turn #6, 3 sections, universal wound, 4 crosses per turn	30 strands No. 44 Litzendraht SS 30 strands No. 44 Litzendraht SS No. 30 SSE 30 strands No. 44 Litzendraht SS	50 turns each section 50 #3 and #4, 14 turns #5, 13 50 turns each section		
T306	P-720561-502		Two coils: #1, 3 sections, universal wound, 4 crosses per turn #2, universal wound, 4 crosses per turn	#1 and #2, 30 strands No. 44, Litzendraht SS	44 turns each section 54		
T401	B-901013-501	(T401) 	Primary, term 1-4 Plate, term 5-7 Fil. #1, 13-15 Fil. #2, 9-10 Fil. #3, 11-12	No. 39 enameled No. 30 enameled Two No. 15 enameled No. 20 enameled No. 16 enameled	263, tapped at 242 and 252 1,270 tapped at 635 15, tapped at 7½ 39 12	1.33 100 0.033 0.385 0.065	Hipot ac volts: 2,500 *No.-Load Volt* / *Full-Load Volt* 110-120 580±17 / 550/275 6.83 / 6.3/3.15 17.8 / 17 5.47 / 5 *Current* Pri. Plate 0.12 amp. Fil. #1 11.1 amps. Fil. #2 1.2 amps. Fil. #3 3 amps.
Z301	M-421251-501	Same as L304	Same as L304	Same as L304	Same as L304		
Z302	K-865456-501	Same as L305	Same as L305	Same as L305	Same as L305		

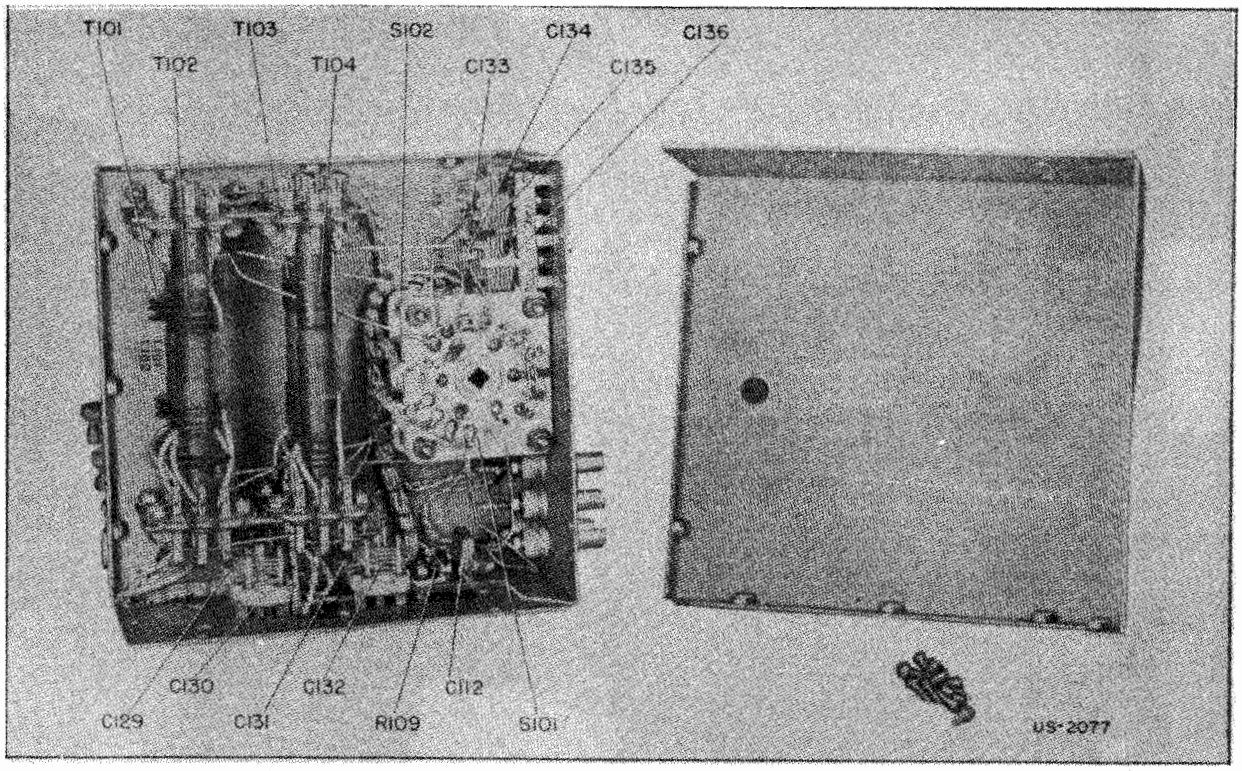


Figure 7-22. RBB—Antenna Box, Component Identification

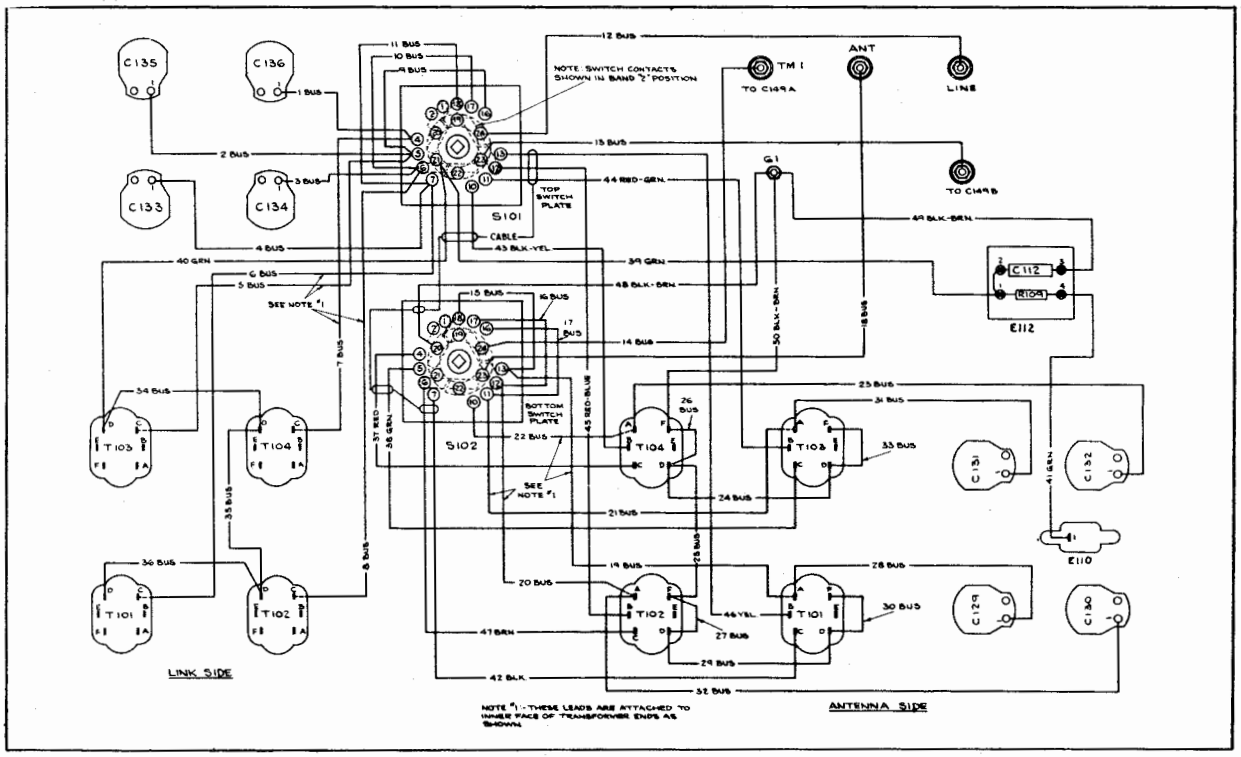


Figure 7-23. RBB—Antenna Box, Connection Diagram

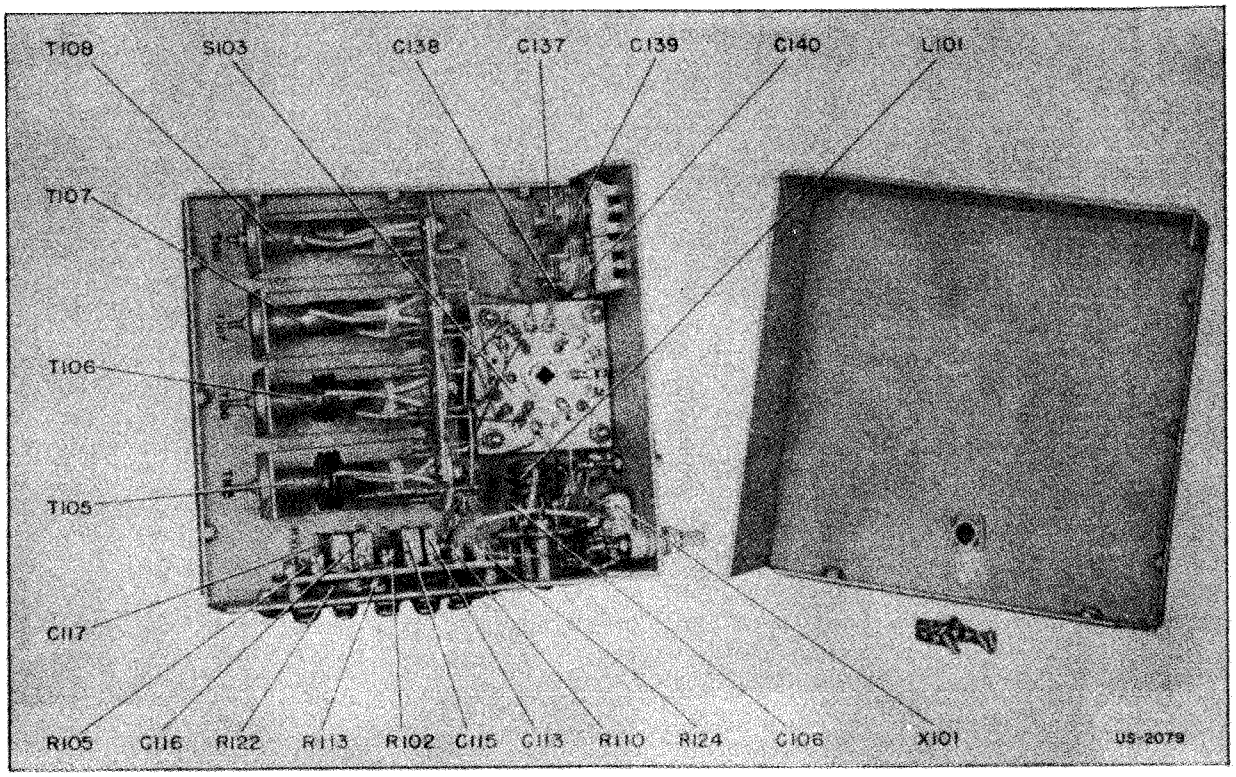


Figure 7-24. RBB—First R-F Box, Component Identification

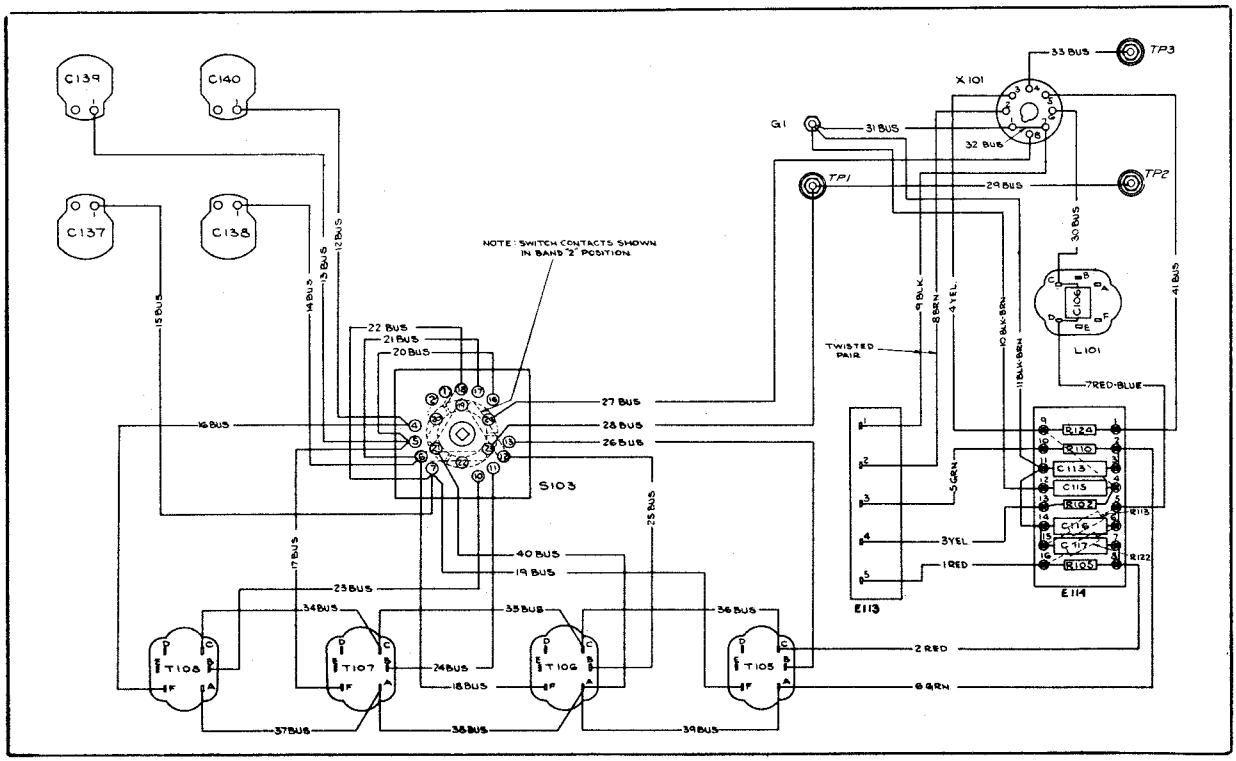


Figure 7-25. RBB—First R-F Box Connection Diagram

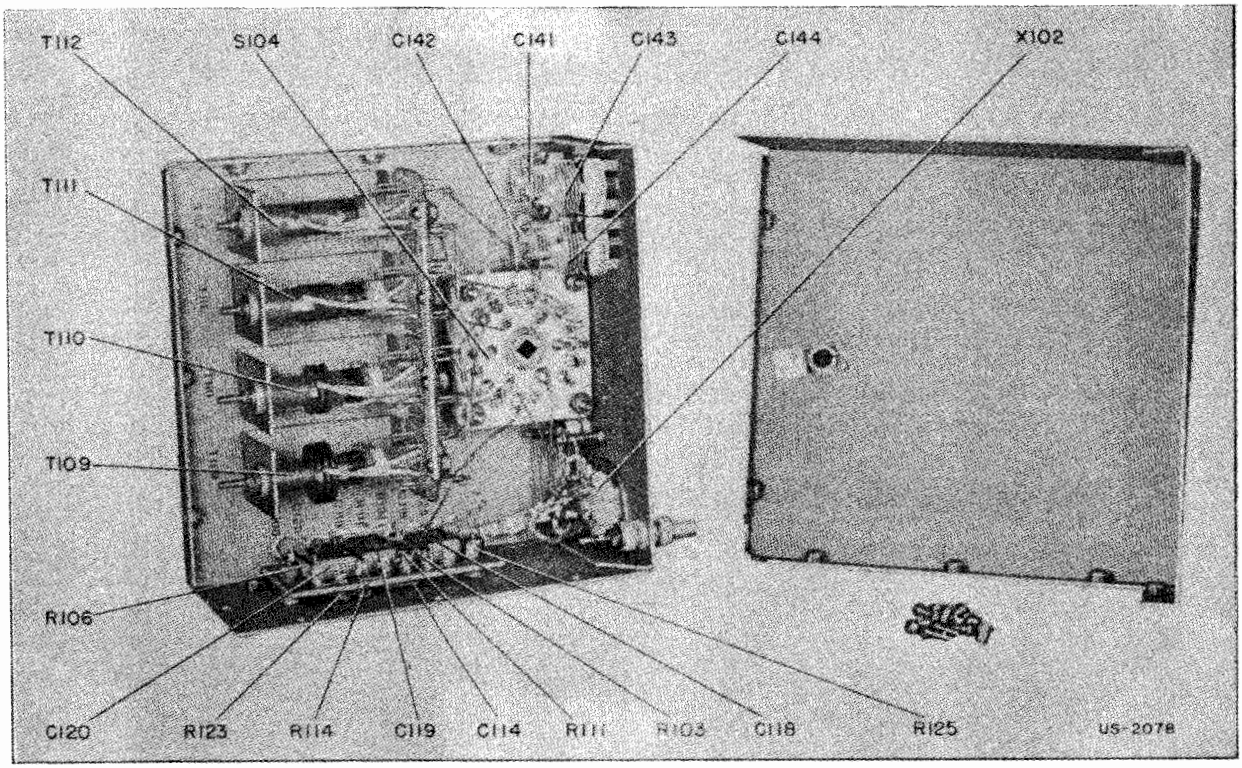


Figure 7-26. RBB—Second R-F Box, Component Identification

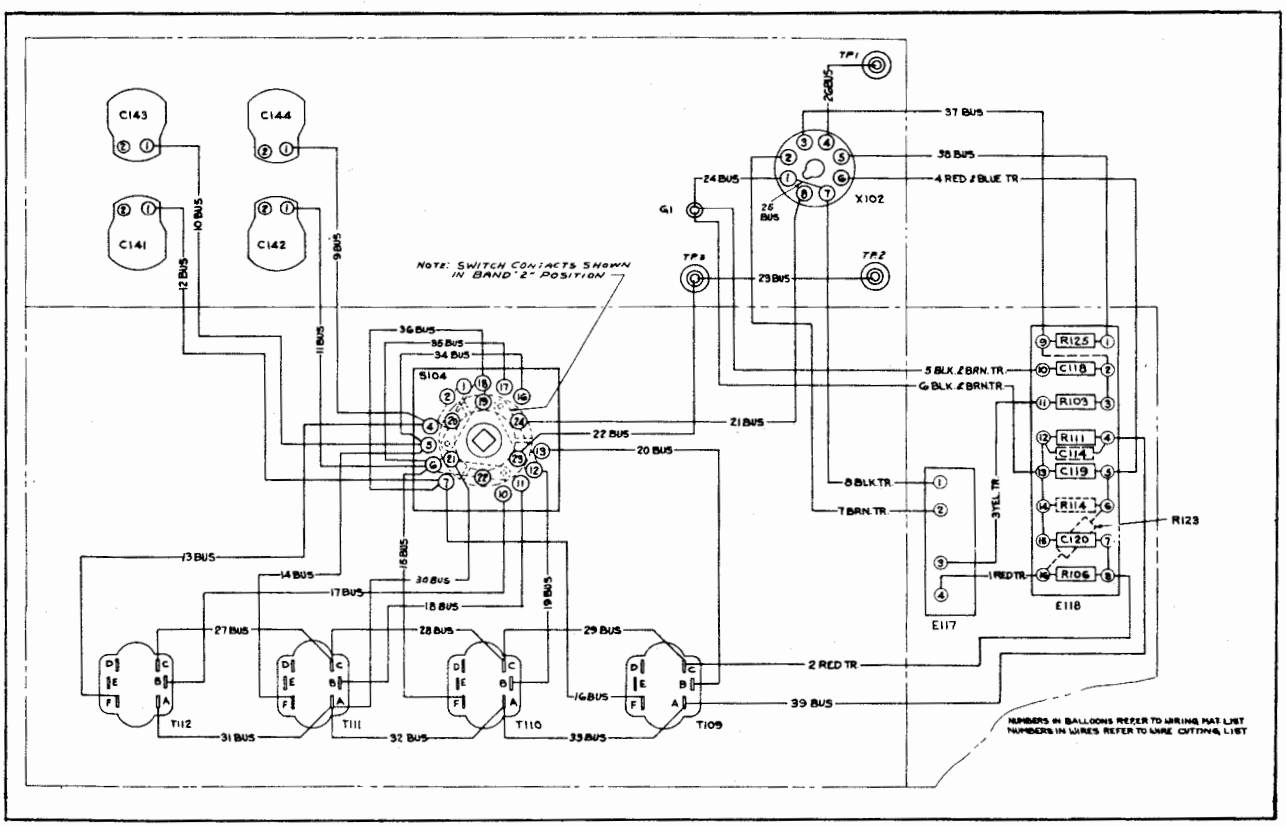


Figure 7-27. RBB—Second R-F Box, Connection Diagram

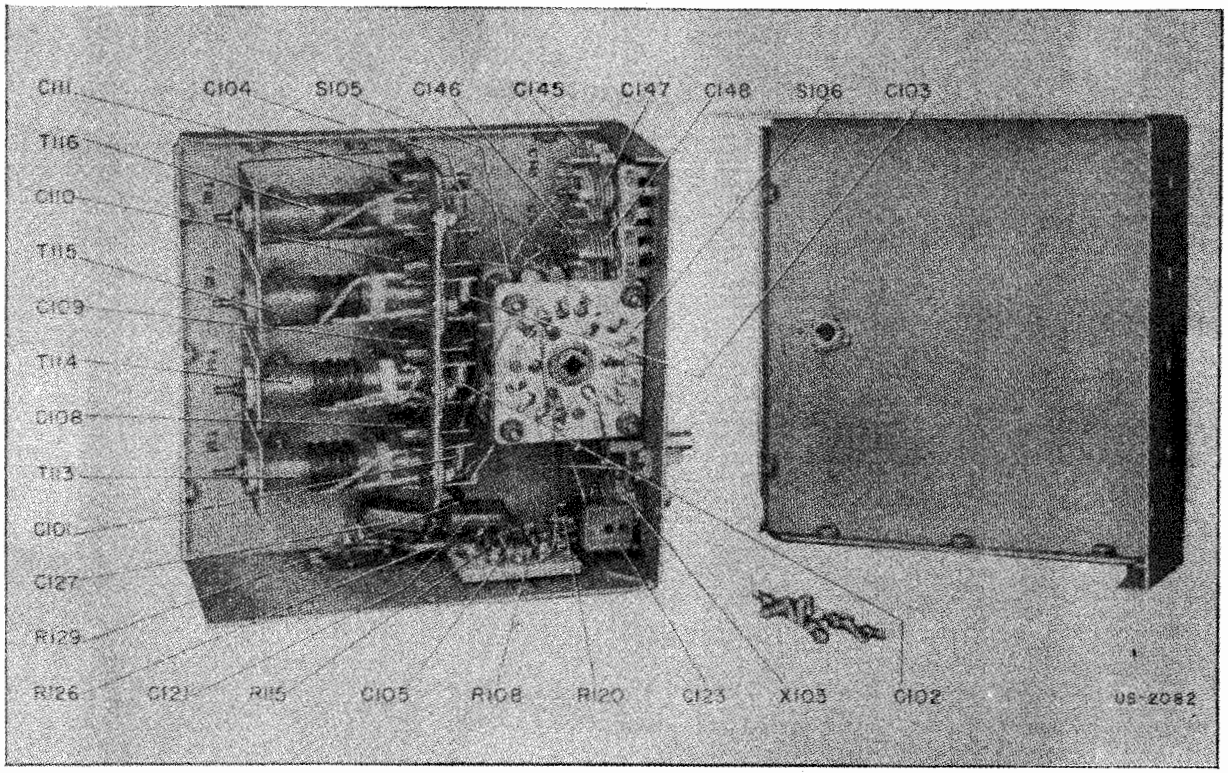


Figure 7-28. RBB—Oscillator Box, Component Identification

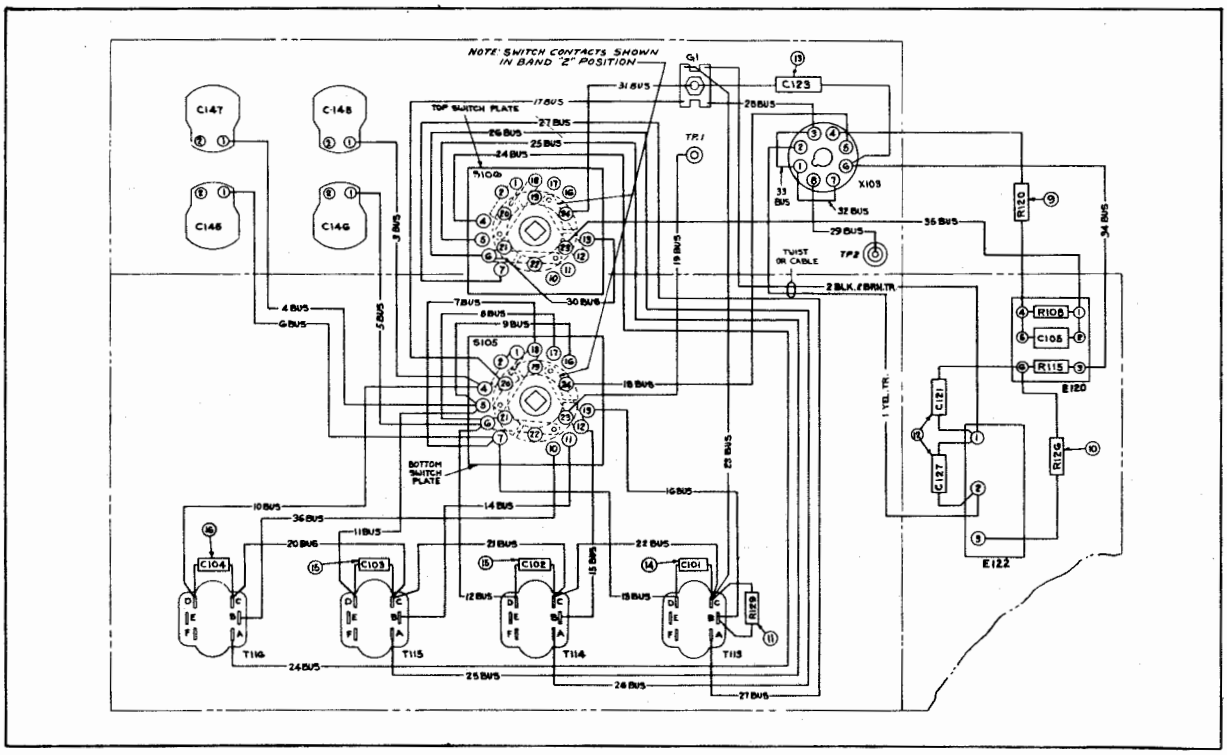


Figure 7-29. RBB—Oscillator Box, Connection Diagram

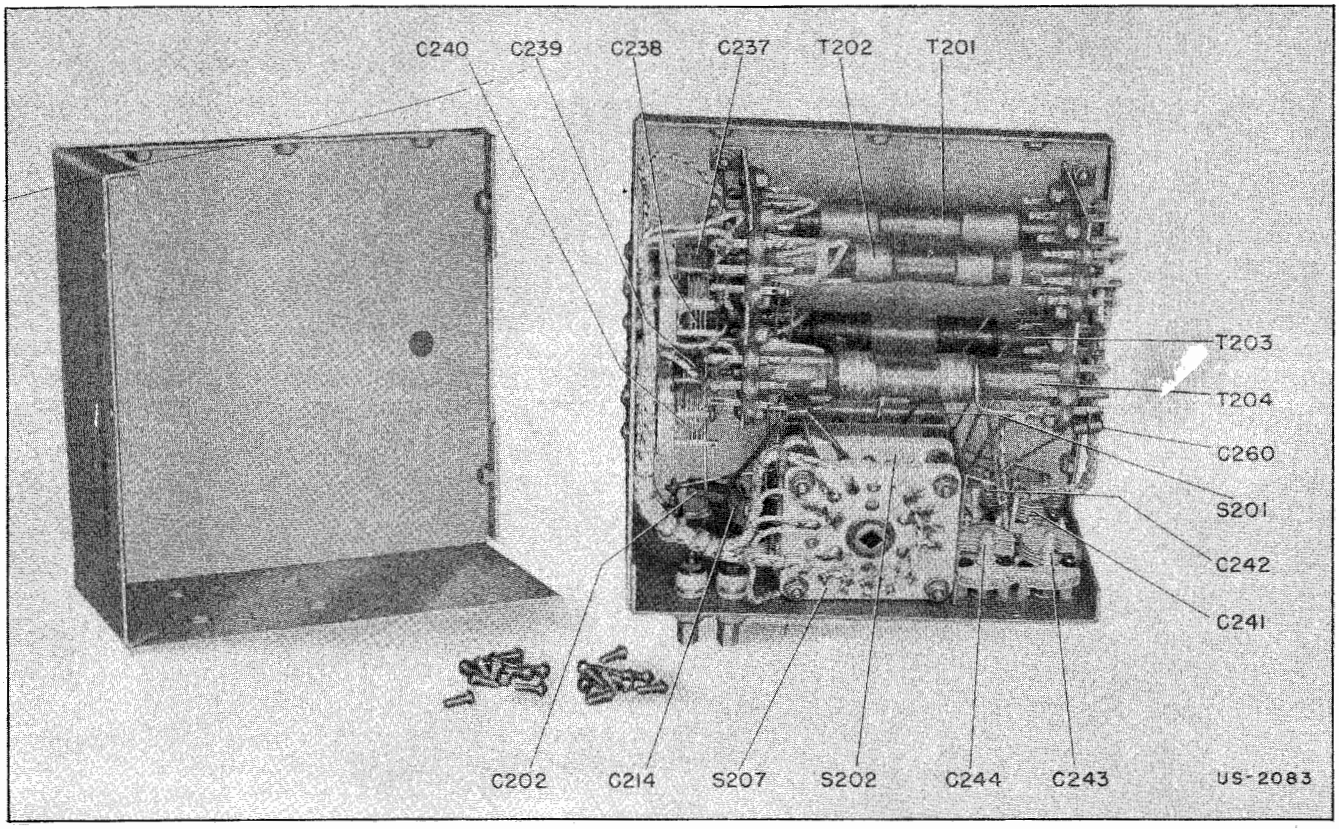


Figure 7-30. RBC—Antenna Box, Component Identification

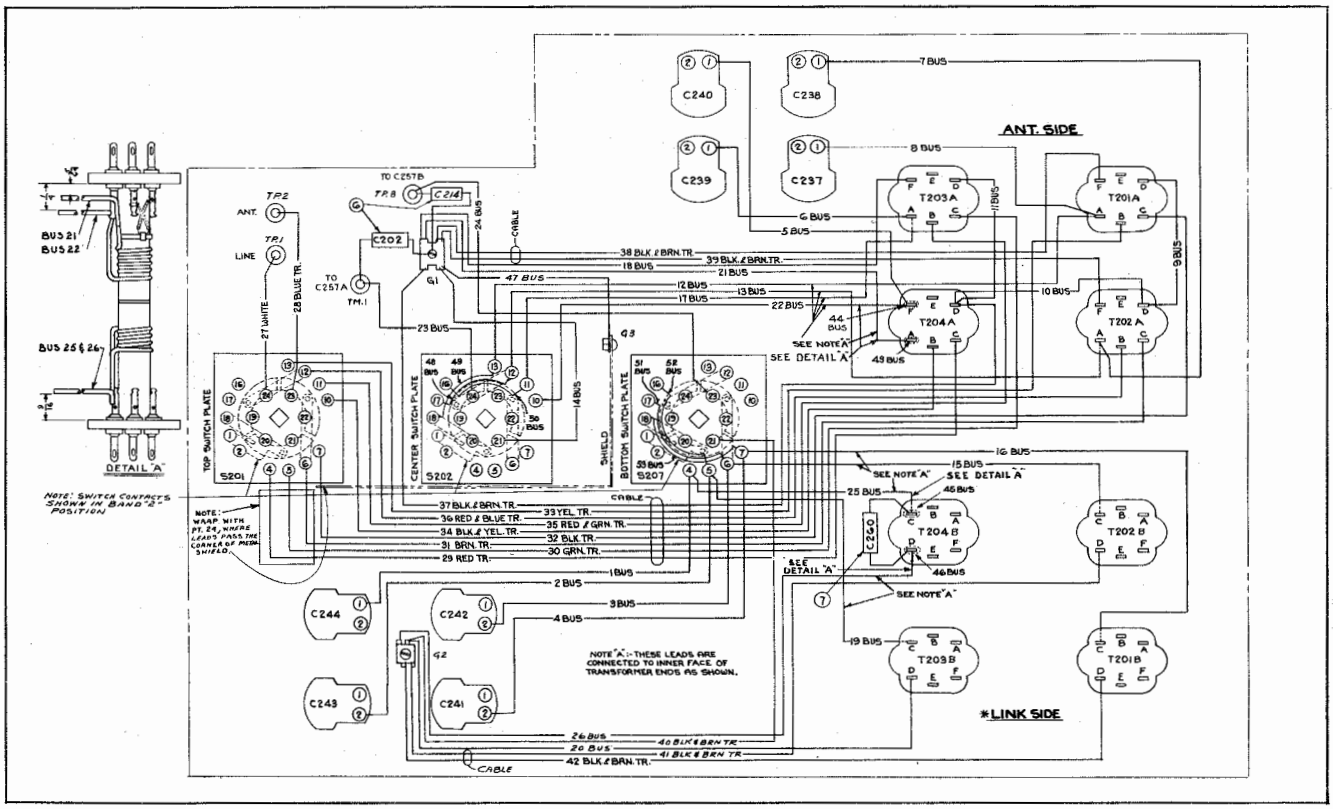


Figure 7-31. RBC—Antenna Box, Connection Diagram

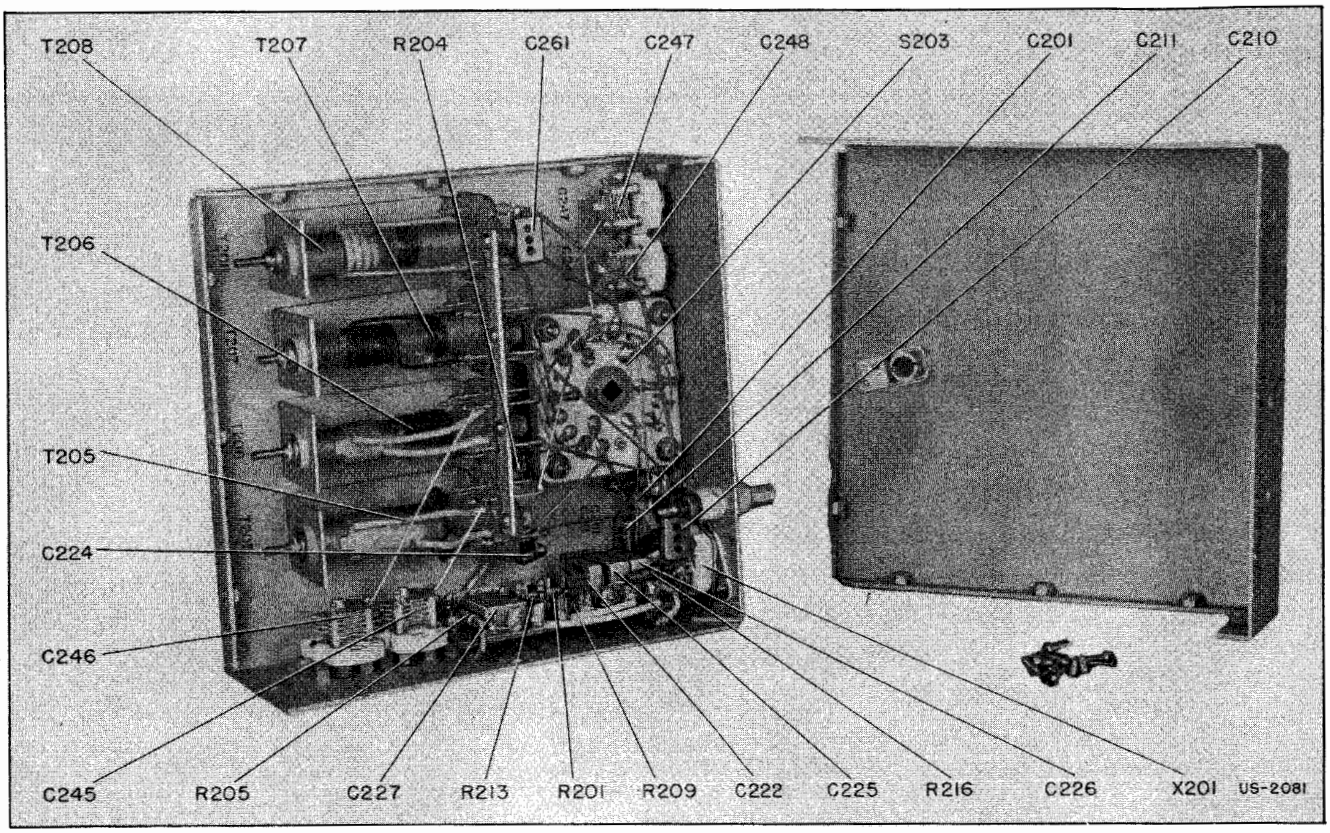


Figure 7-32. RBC—First R-F Box, Component Identification

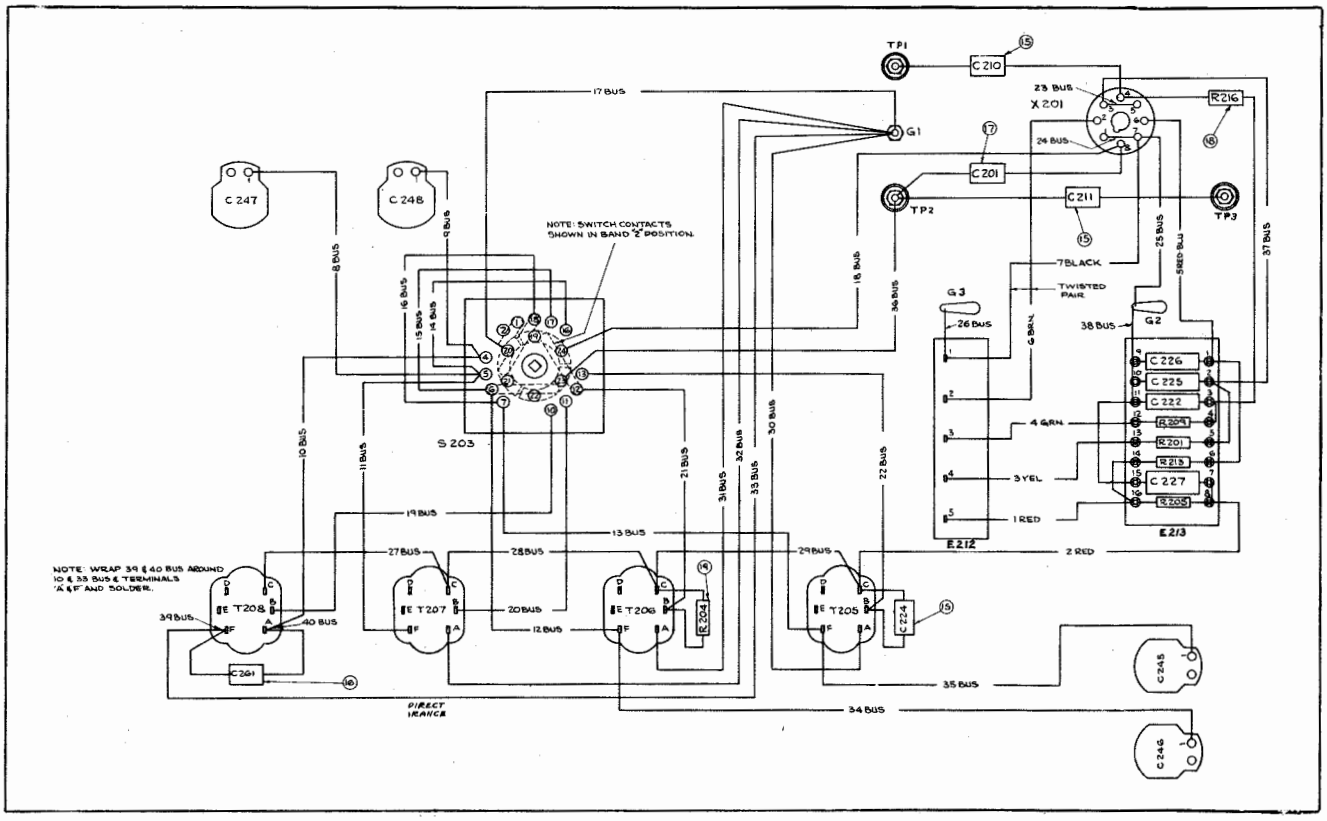


Figure 7-33. RBC—First R-F Box, Connection Diagram

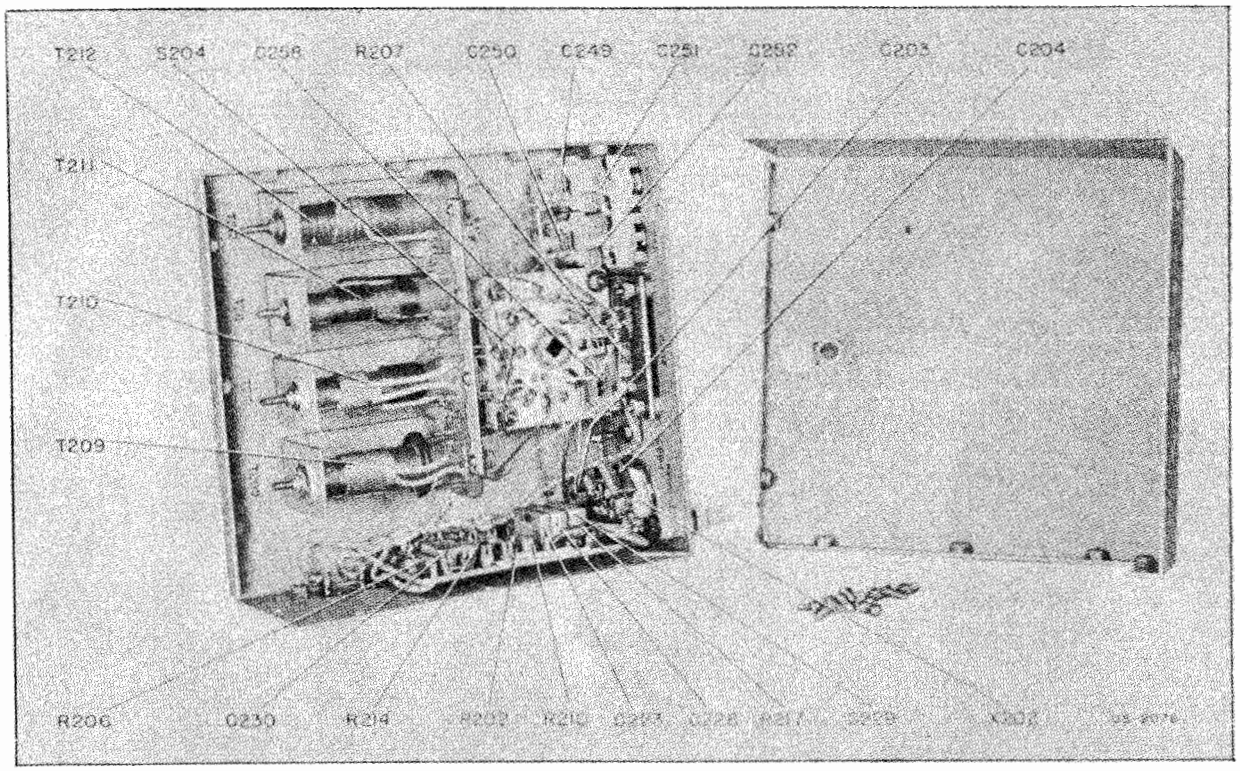


Figure 7-34. RBC—Second R-F Box, Component Identification

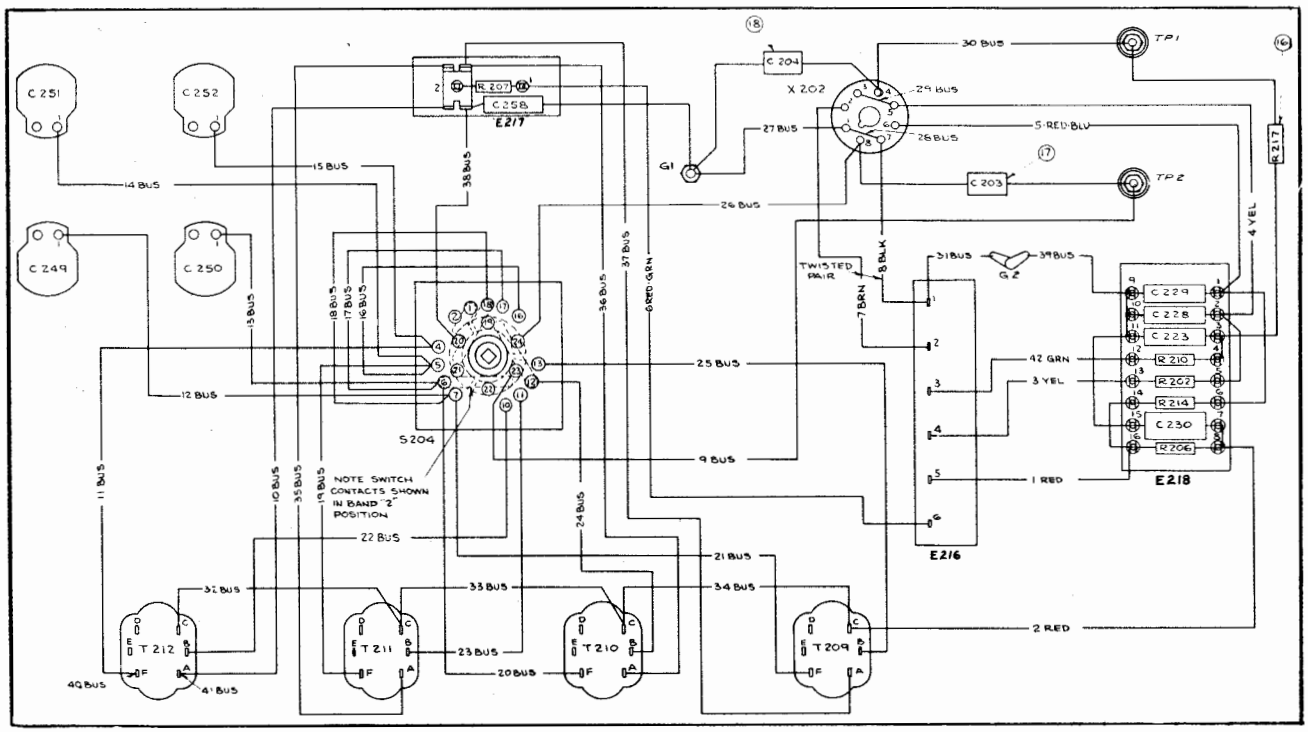


Figure 7-35. RBC—Second R-F Box, Connection Diagram

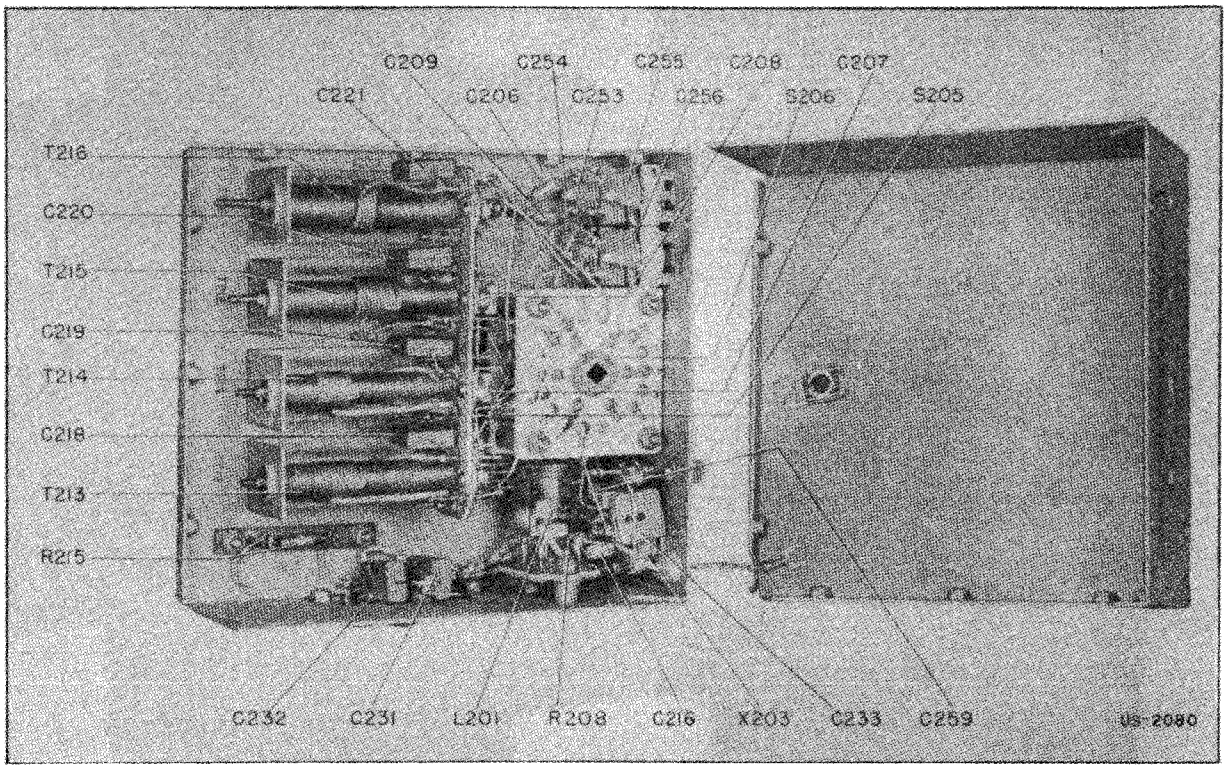


Figure 7-36. RBC—Oscillator Box, Component Identification

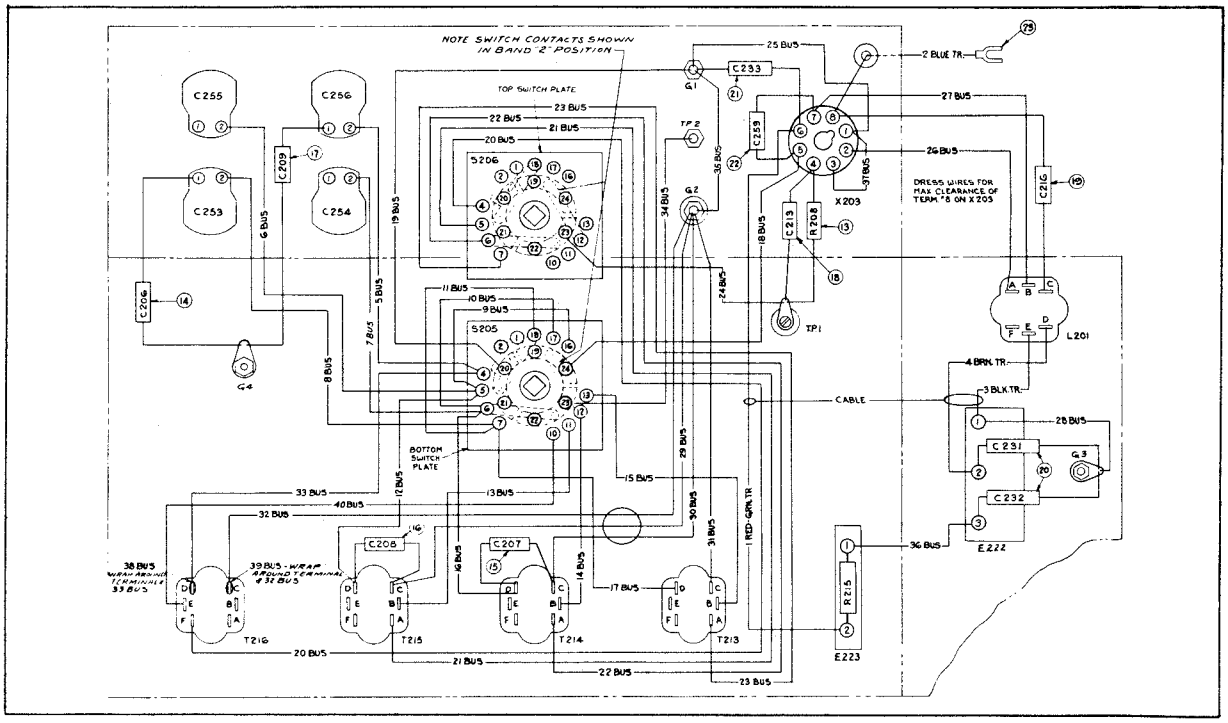


Figure 7-37. RBC—Oscillator Box, Connection Diagram

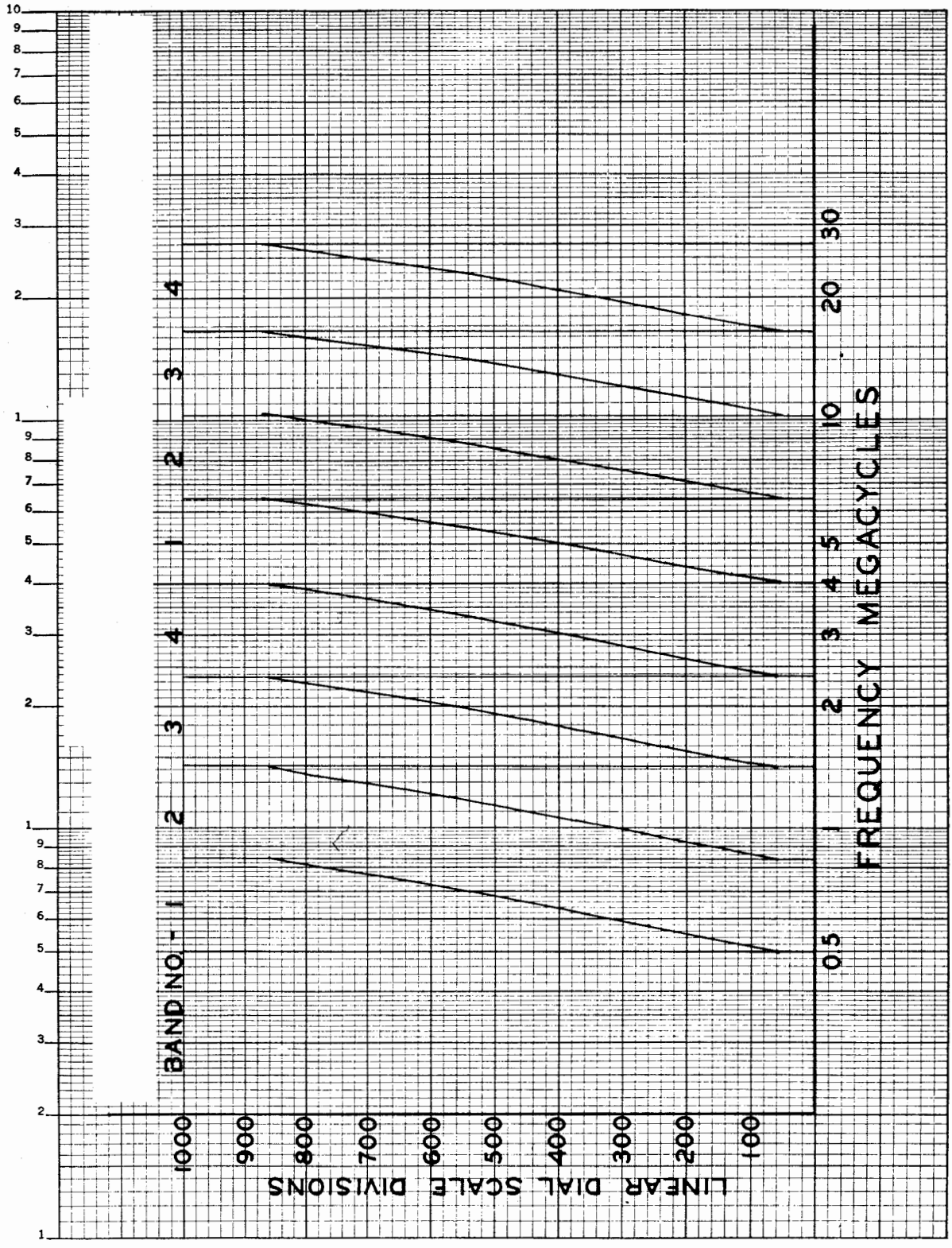


Figure 7-38. RBB/RBC, Dial Calibration—Average Curves

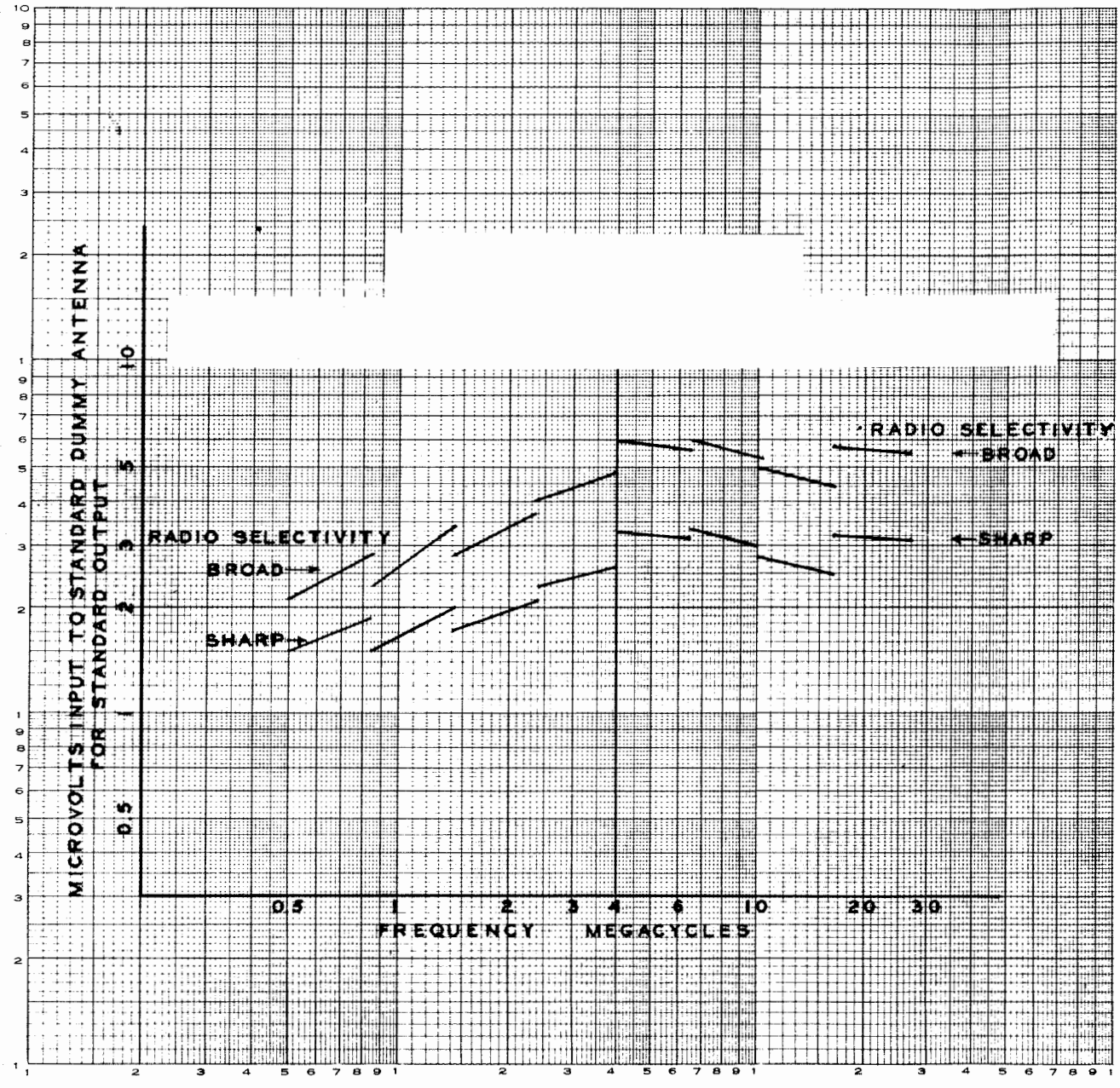


Figure 7-39. RBB/RBC, CW Sensitivity—Average Curves

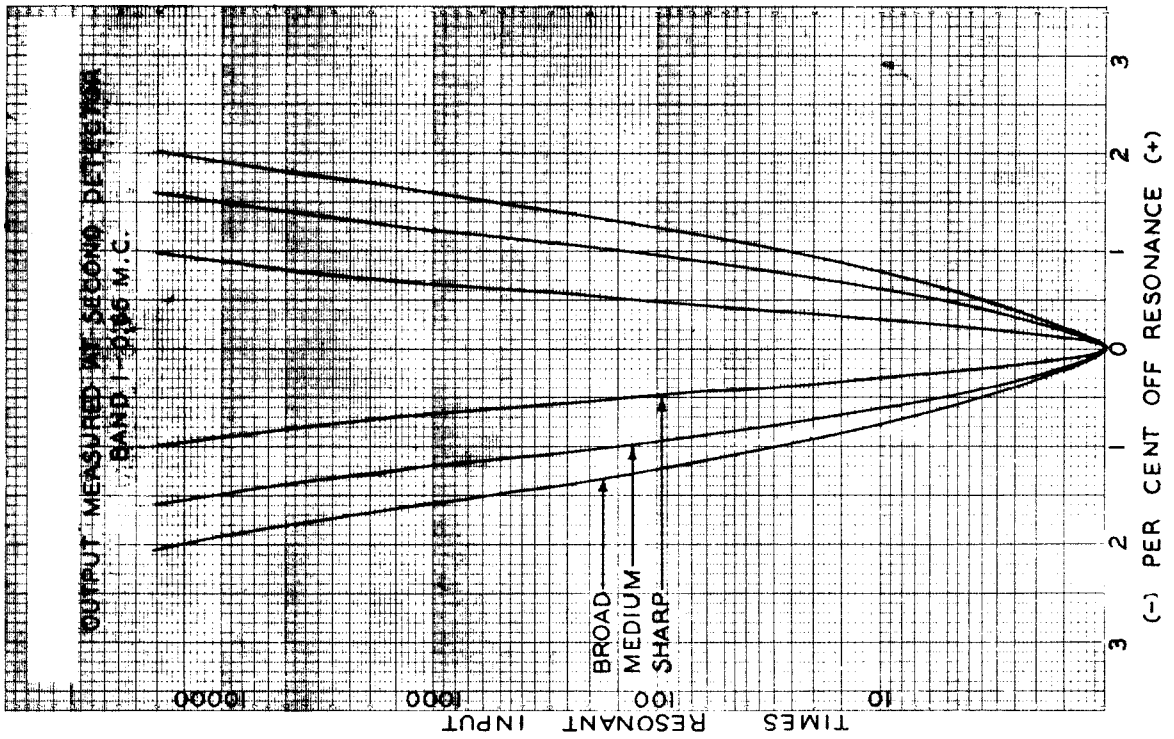


Figure 7-40. RBB, Over-all Selectivity, Band 1—Average Curves

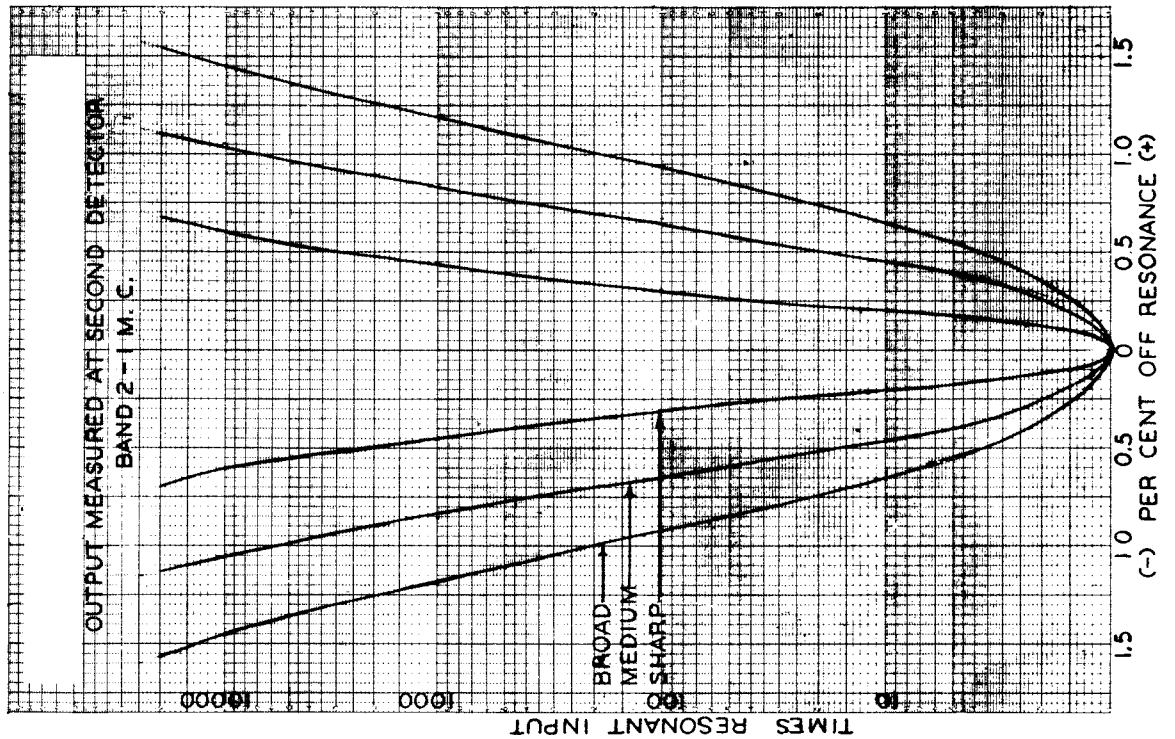


Figure 7-41. RBB, Over-all Selectivity, Band 2—Average Curves

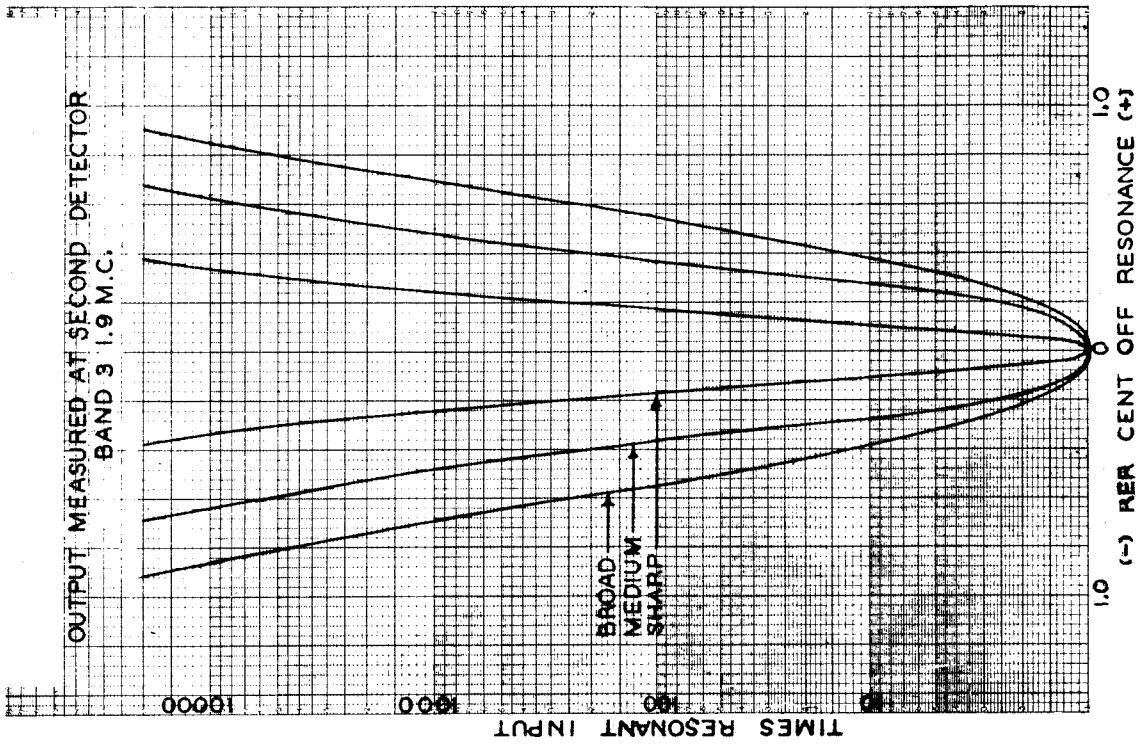


Figure 7-42. RBB, Over-all Selectivity, Band 3—Average Curves

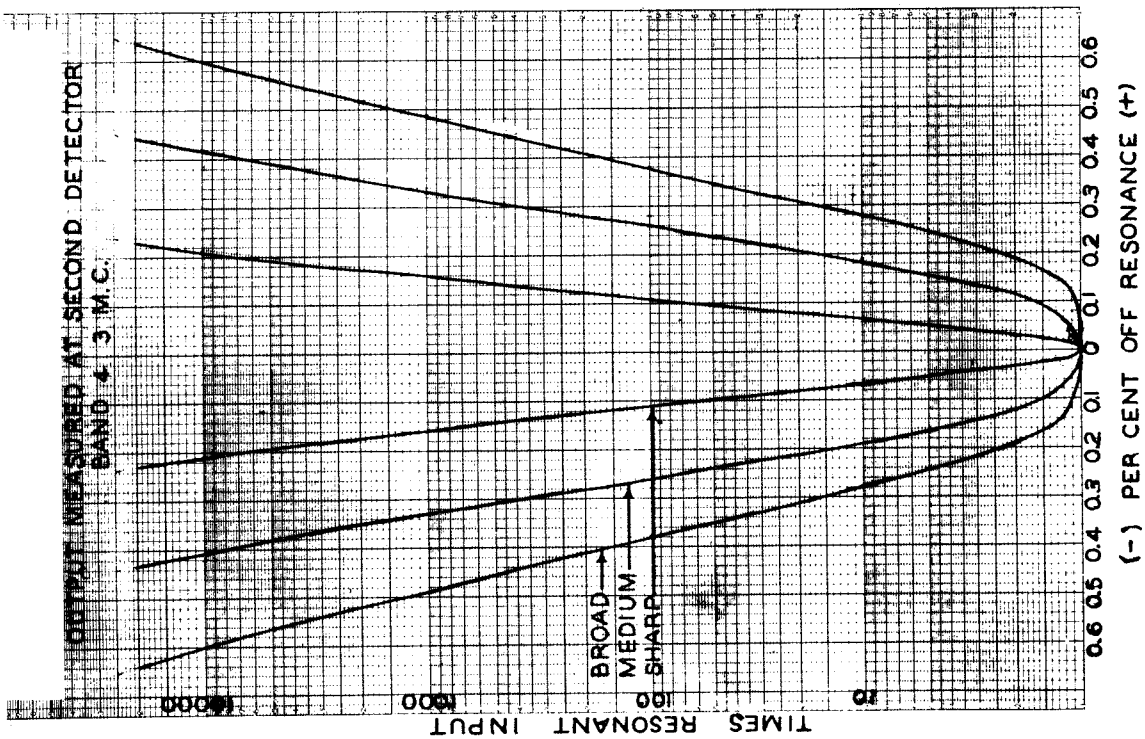


Figure 7-43. RBB, Over-all Selectivity, Band 4—Average Curves

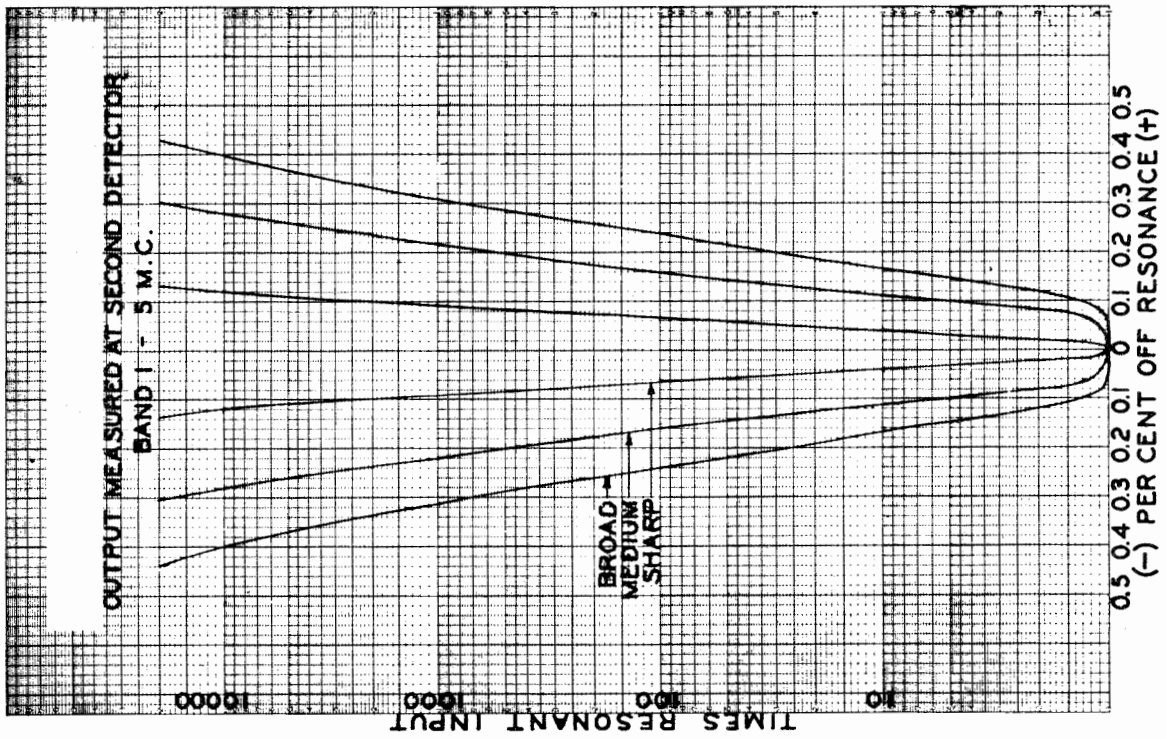


Figure 7-44. RBC, Over-all Selectivity, Band 1—Average Curves

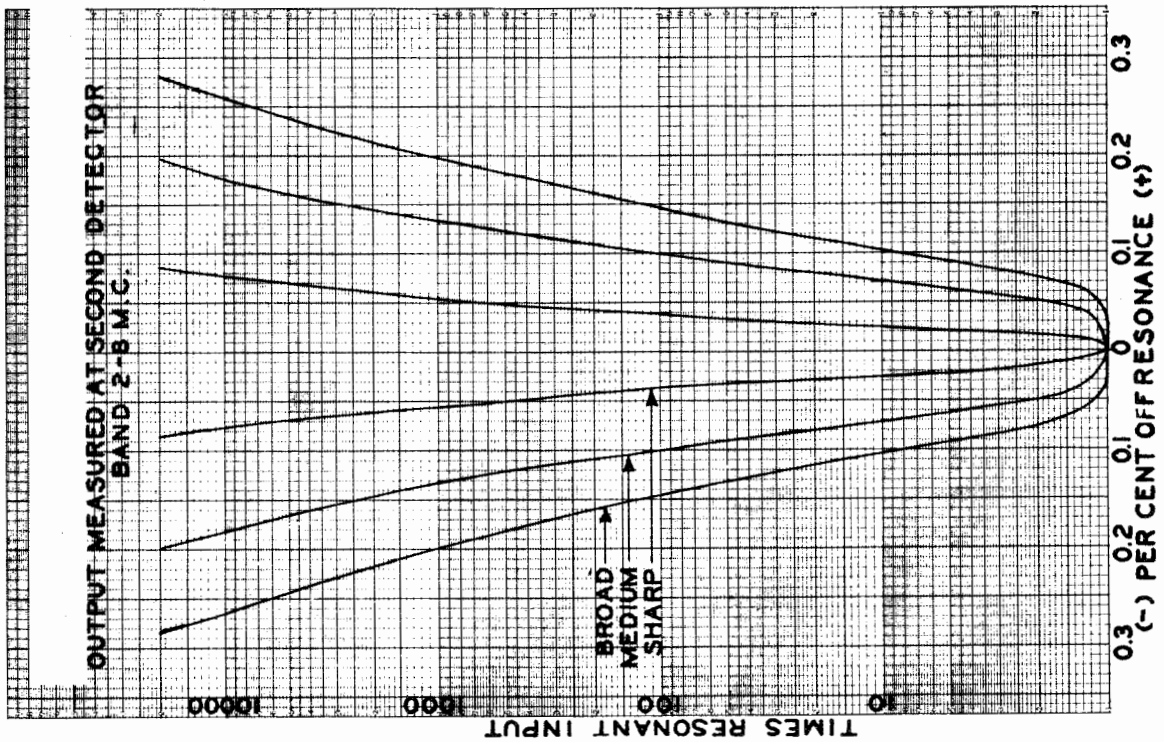


Figure 7-45. RBC, Over-all Selectivity, Band 2—Average Curves

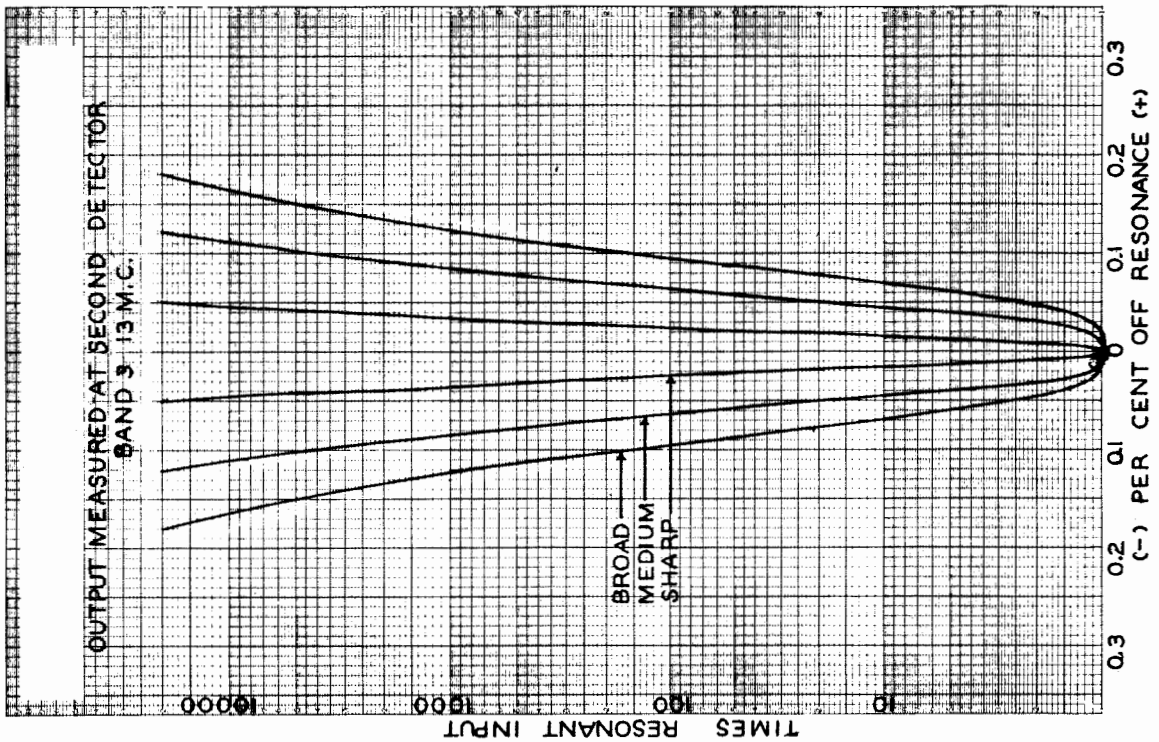


Figure 7-46. RBC, Over-all Selectivity, Band 3—Average Curves

Figure 7-47. RBC, Over-all Selectivity, Band 4—Average Curves

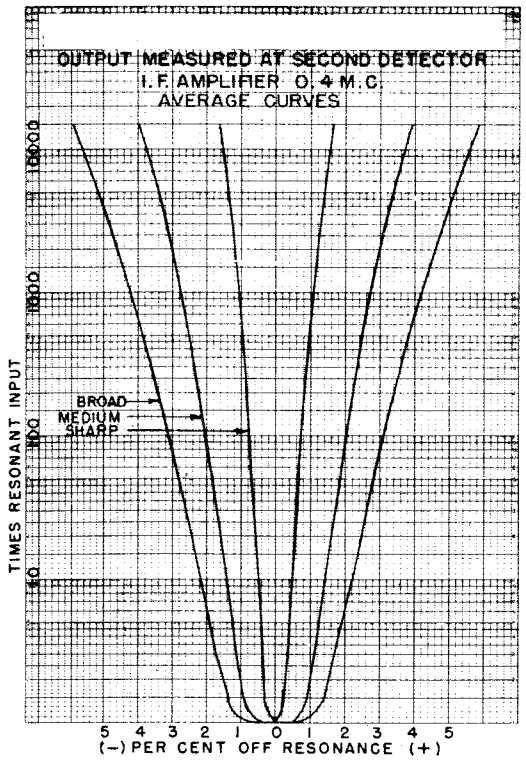


Figure 7-48. RBB/RBC, I-F Selectivity—Average Curves

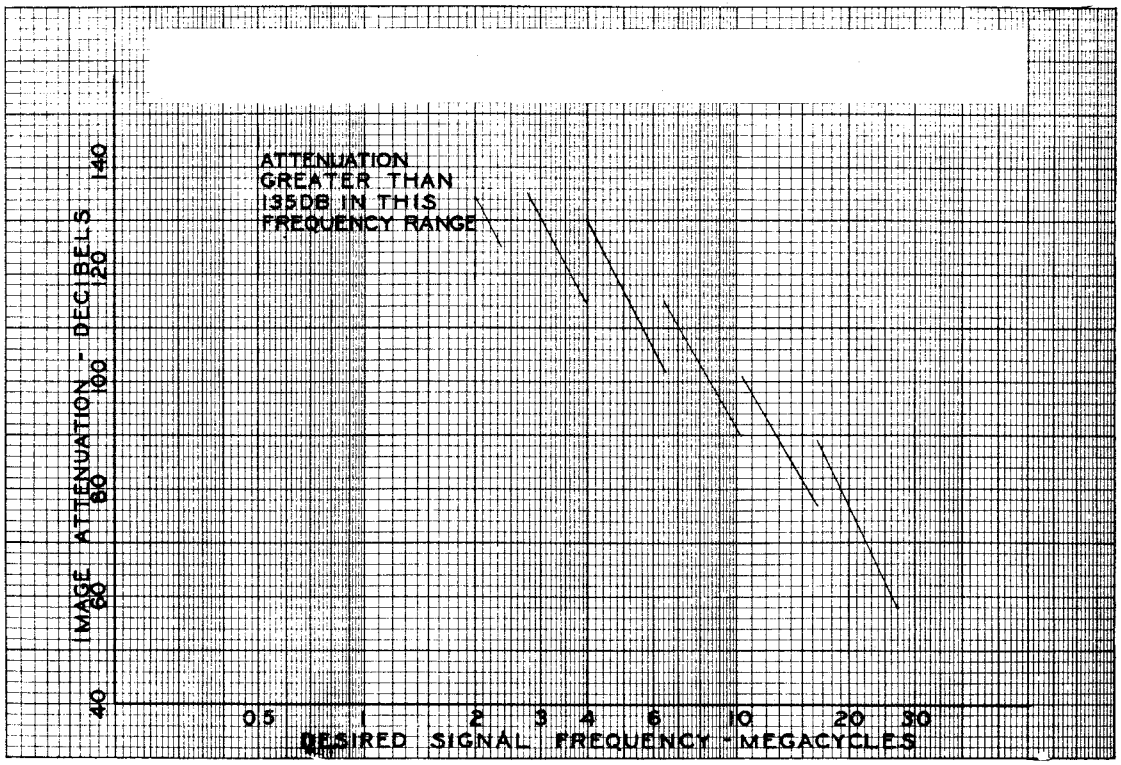


Figure 7-49. RBB/RBC, Image Selectivity—Average Curves

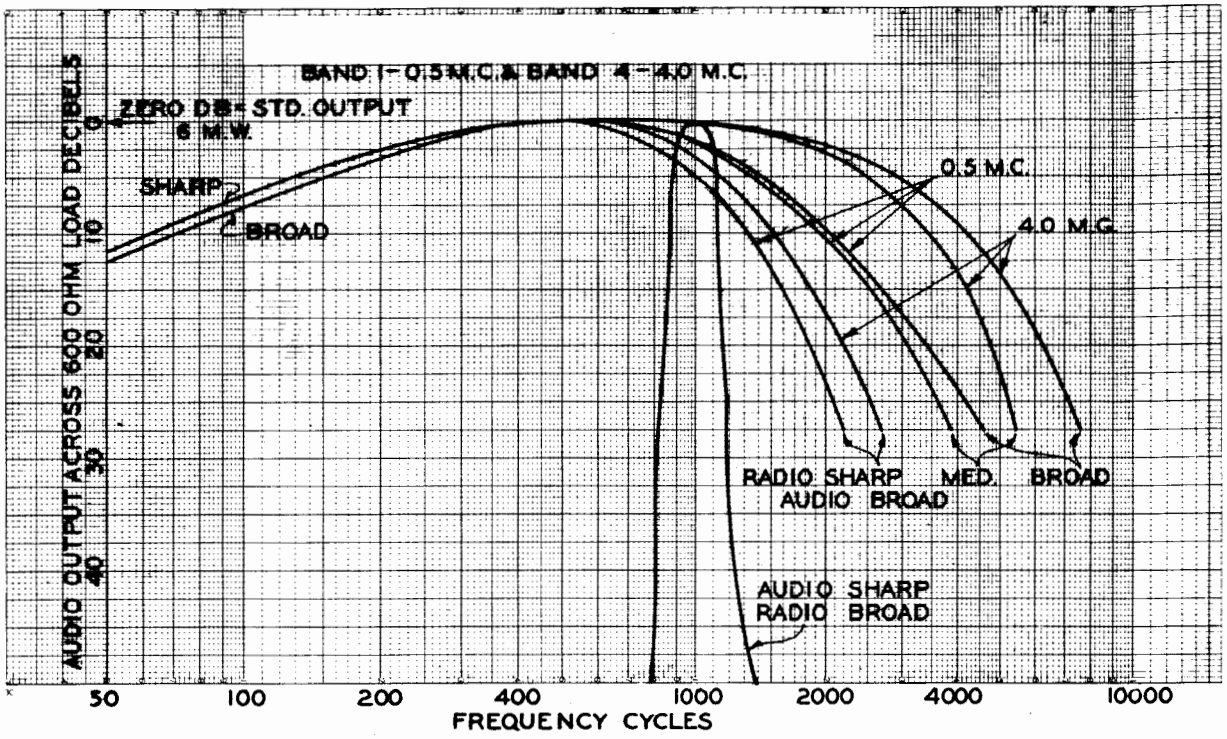


Figure 7-50. RBB, Over-all Audio Fidelity—Average Curves

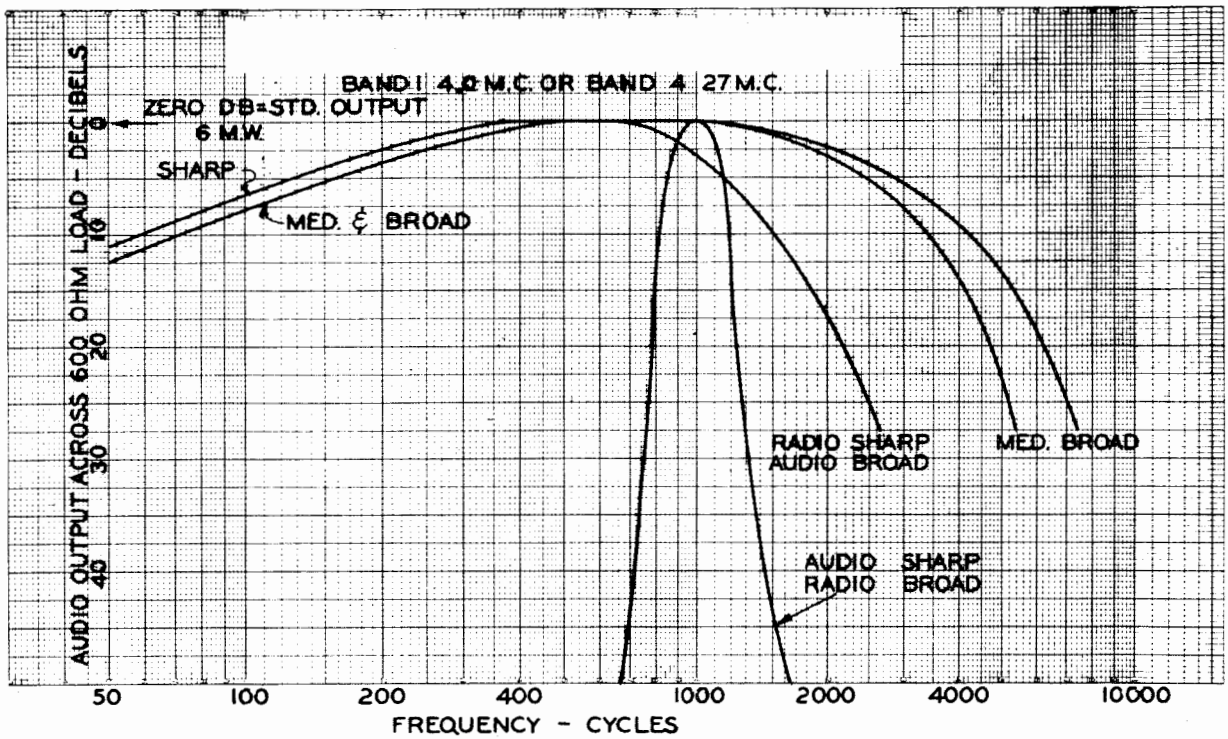


Figure 7-51. RBC, Over-all Audio Fidelity—Average Curves

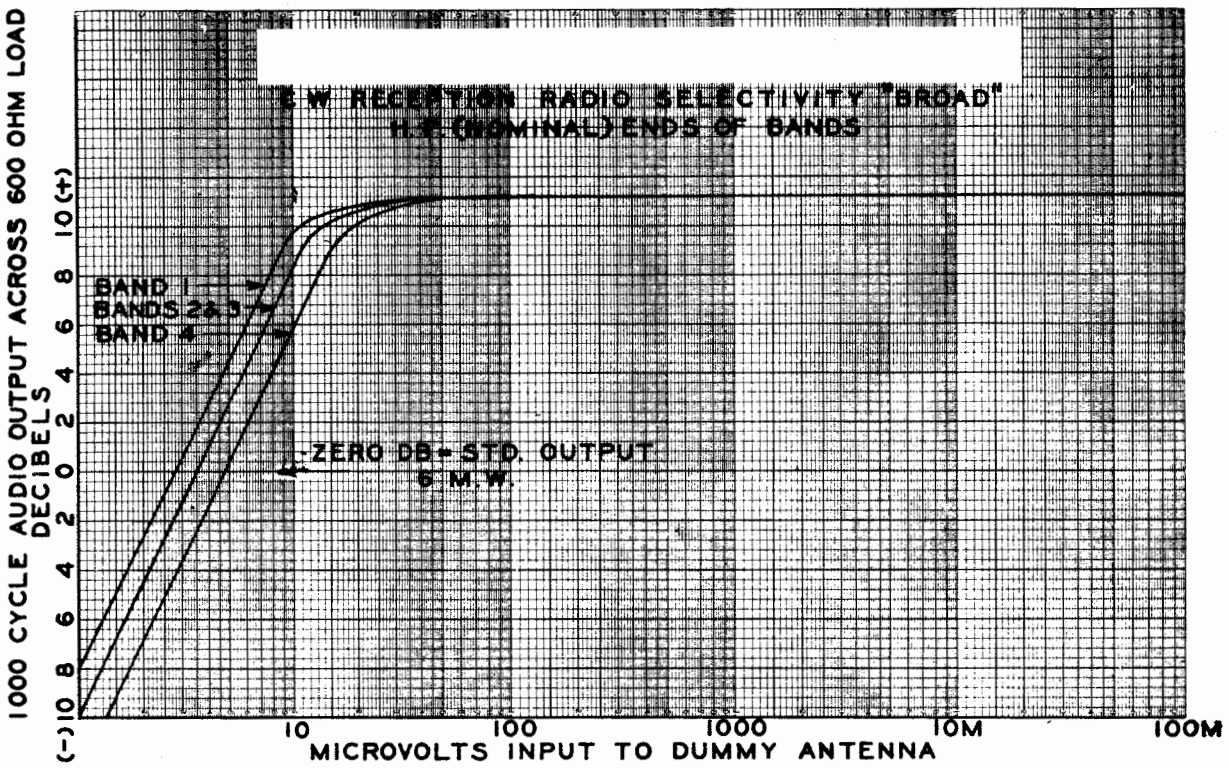


Figure 7-52. RBB, Resonant Overload—Average Curves

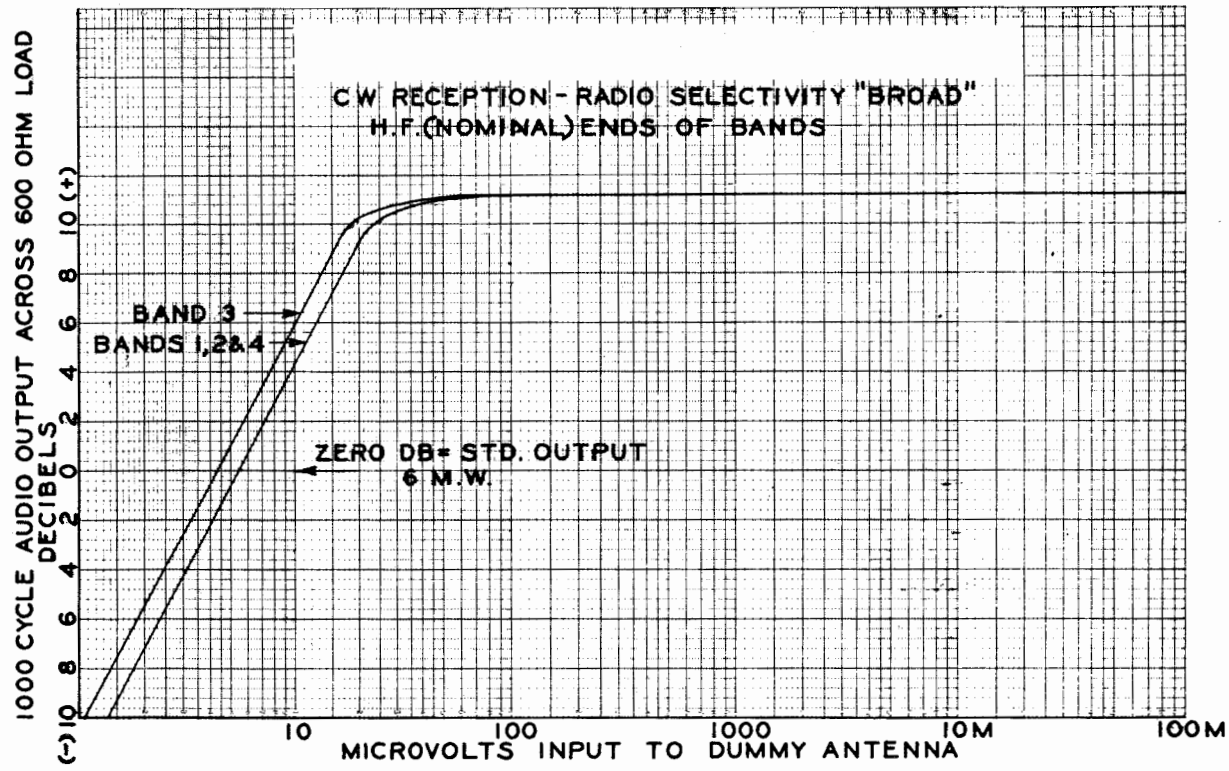


Figure 7-53. RBC, Resonant Overload—Average Curves

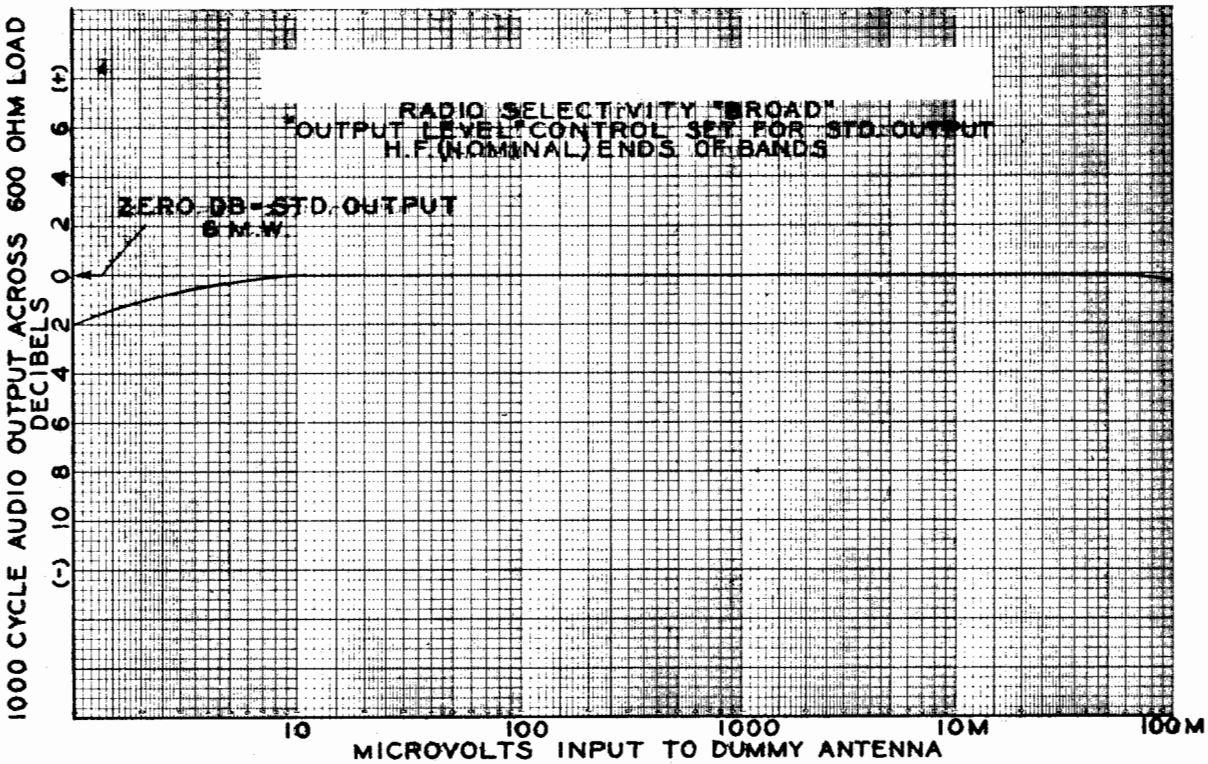


Figure 7-54. RBB, Automatic Gain Control—Average Curves

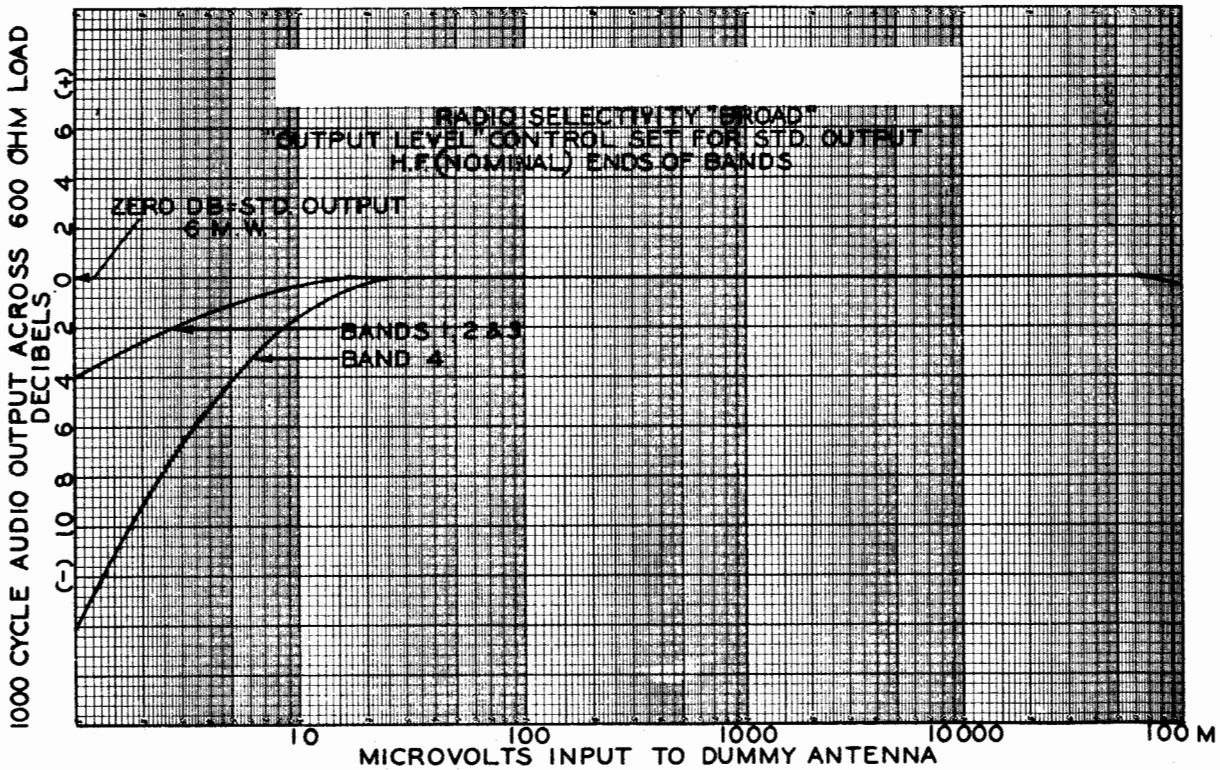


Figure 7-55. RBC, Automatic Gain Control—Average Curves

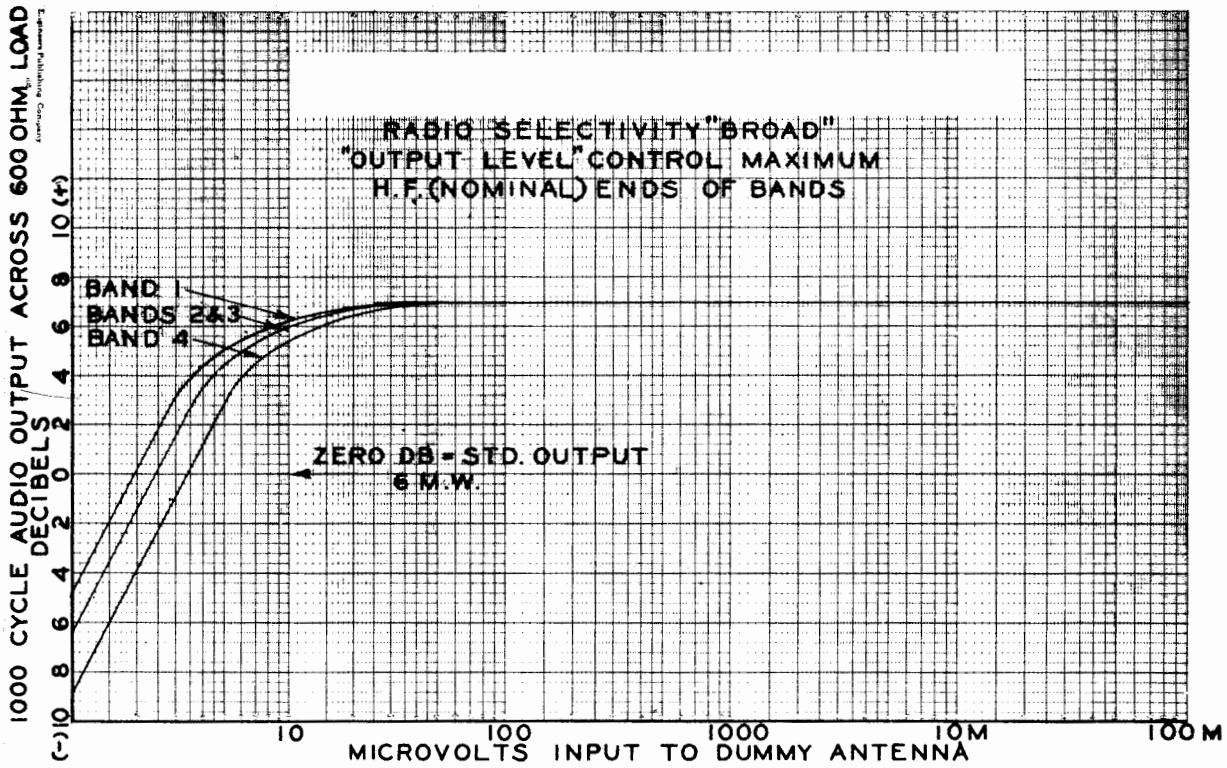


Figure 7-56. RBB, Output Limiter—Average Curves

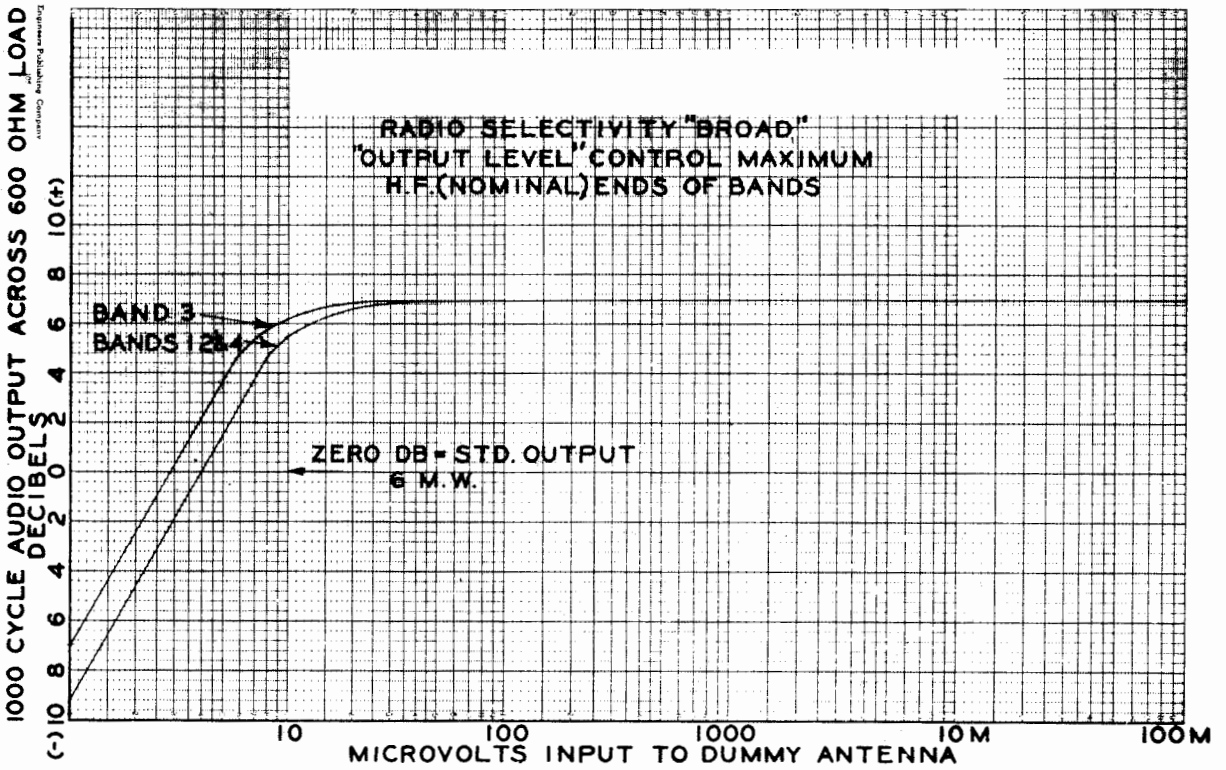


Figure 7-57. RBC, Output Limiter—Average Curves

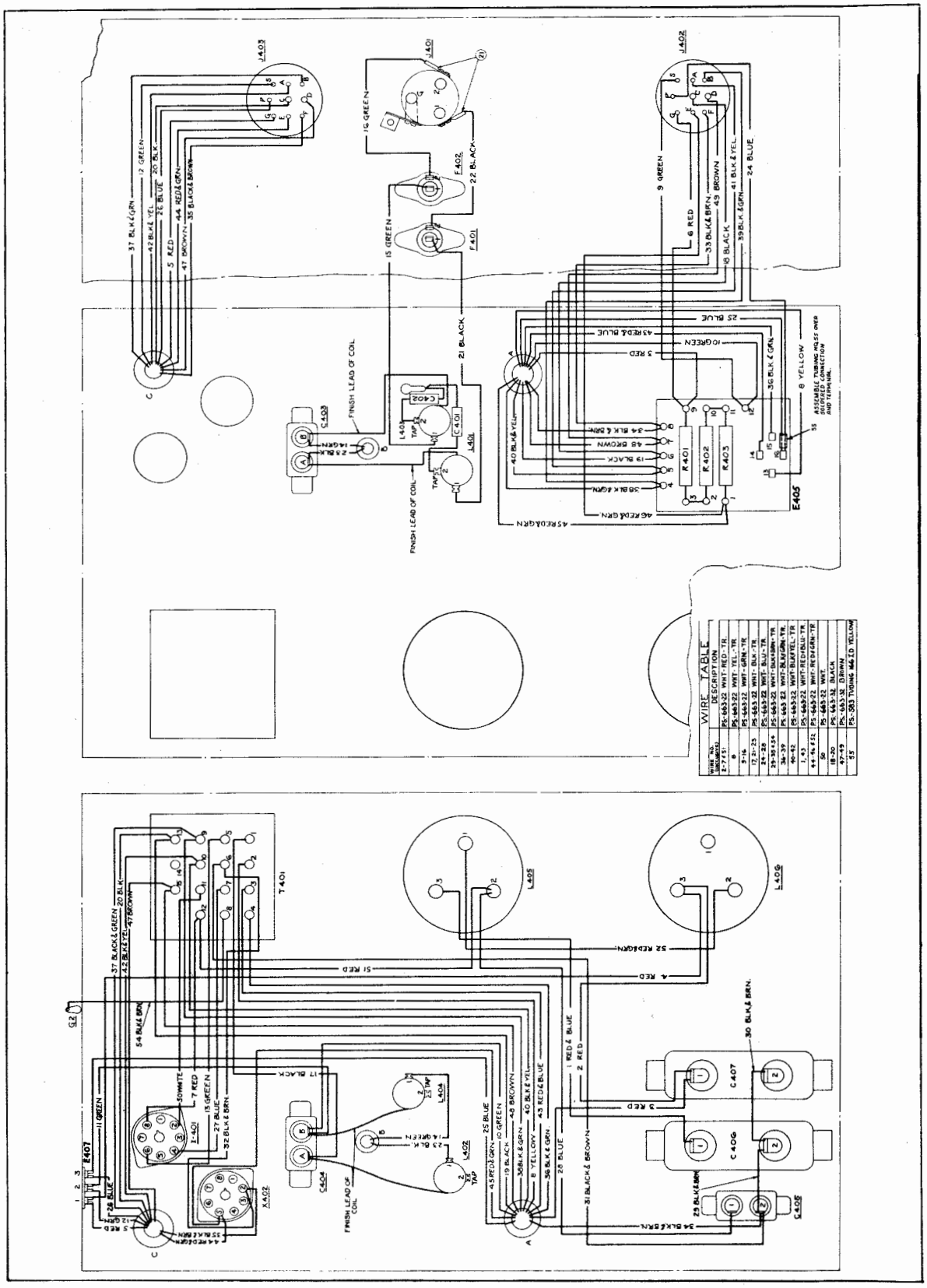
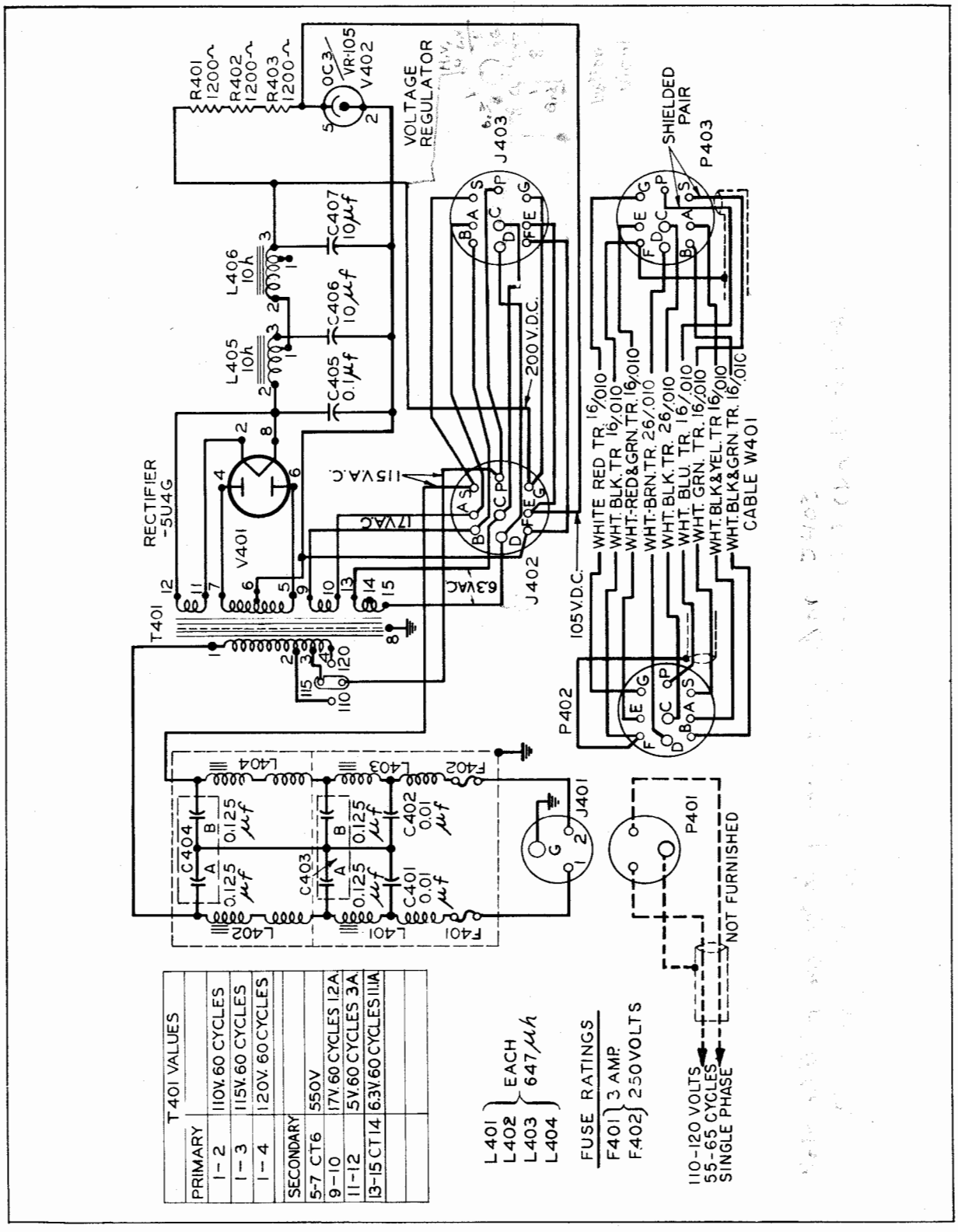


Figure 7-58. Power Unit Connection Diagram



T401 VALUES	
PRIMARY	
1-2	110V. 60 CYCLES
1-3	115V. 60 CYCLES
1-4	120V. 60 CYCLES
SECONDARY	
5-7 CT6	550V
9-10	17V. 60 CYCLES 1.2A
11-12	5V. 60 CYCLES 3A
13-15 CT 14	6.3V. 60 CYCLES 11.1A

Figure 7-59. Power Unit Schematic Diagram

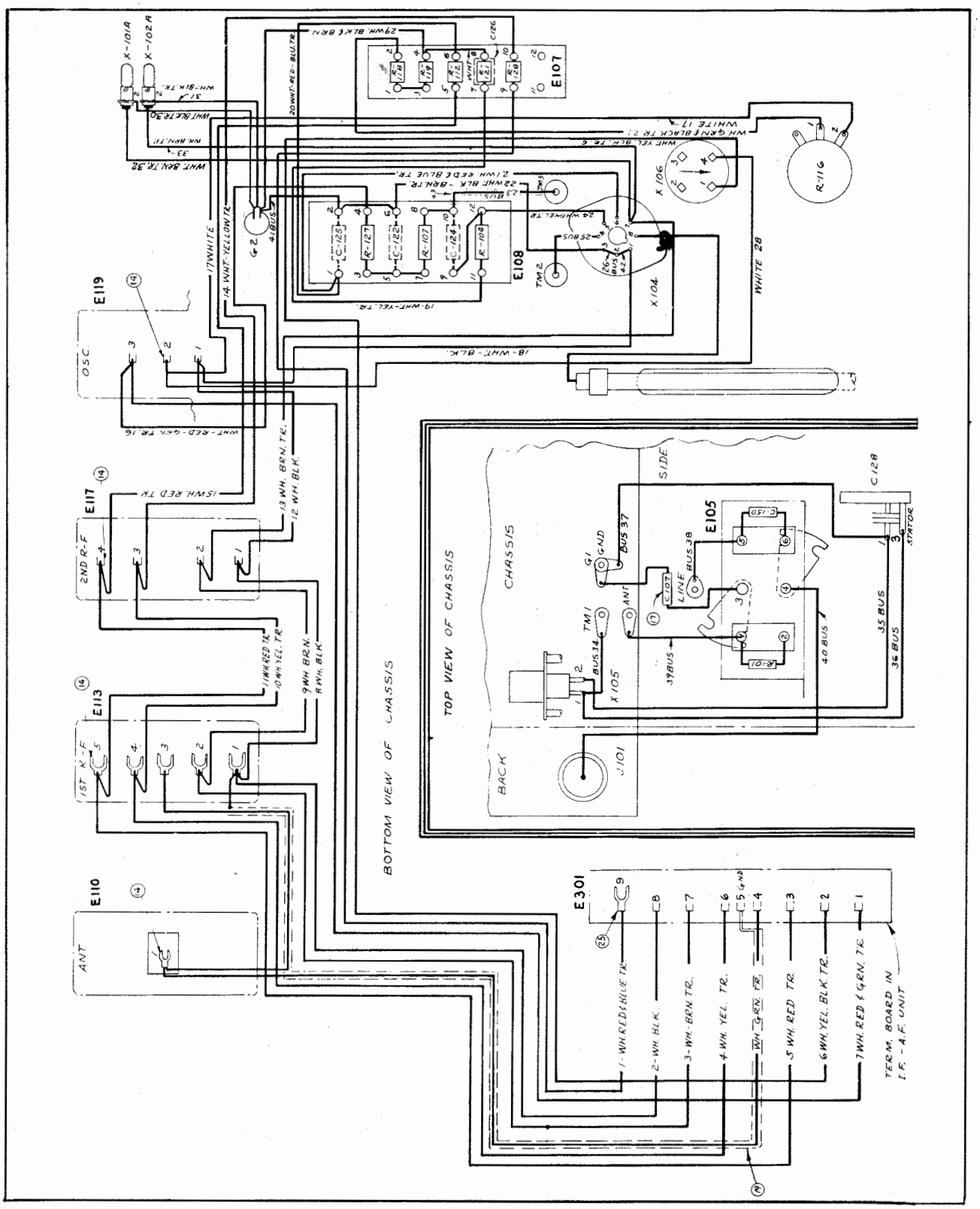


Figure 7-60. RBB, Preselector Connection Diagram

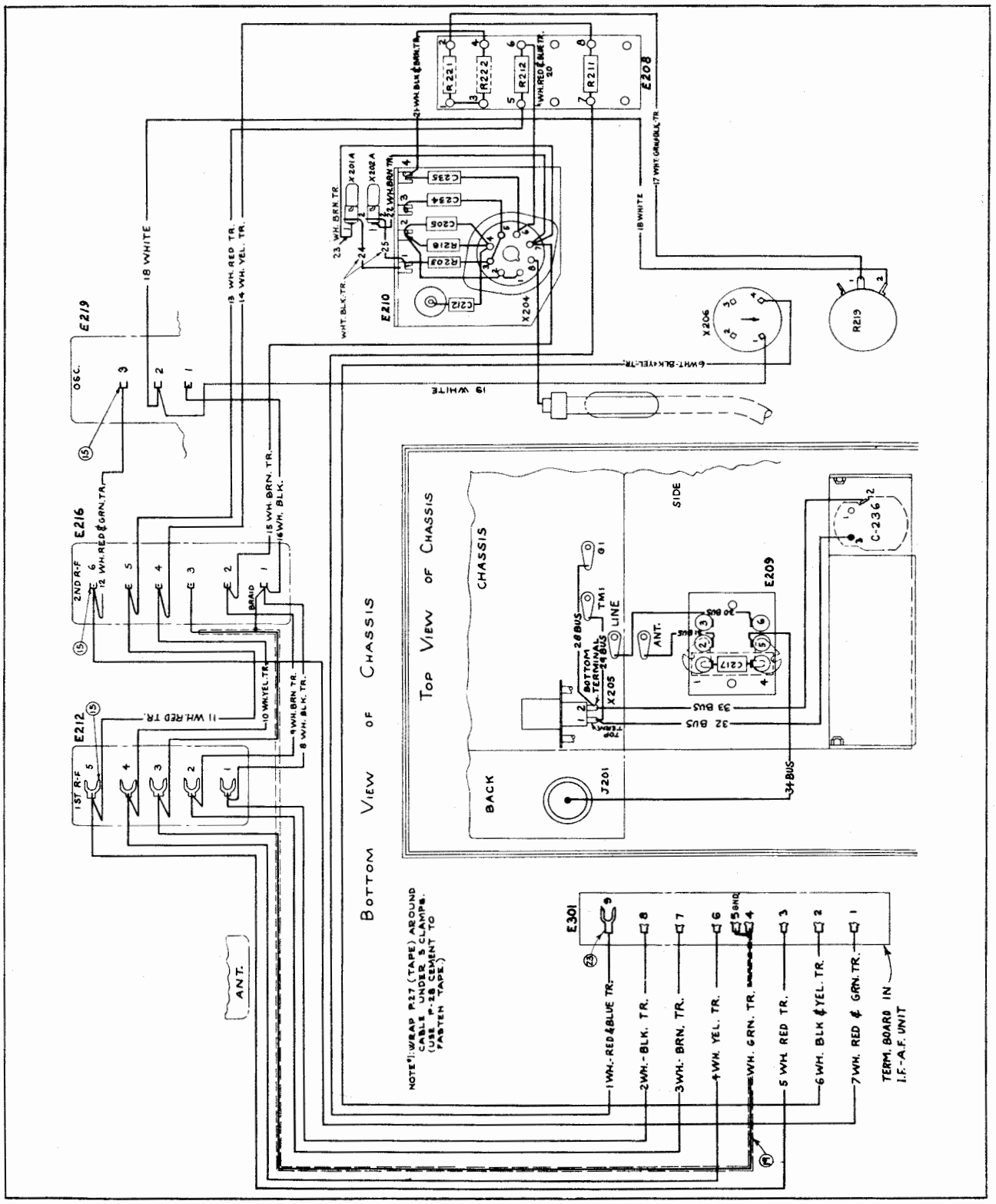


Figure 7-61. RBC, Preselector Connection Diagram

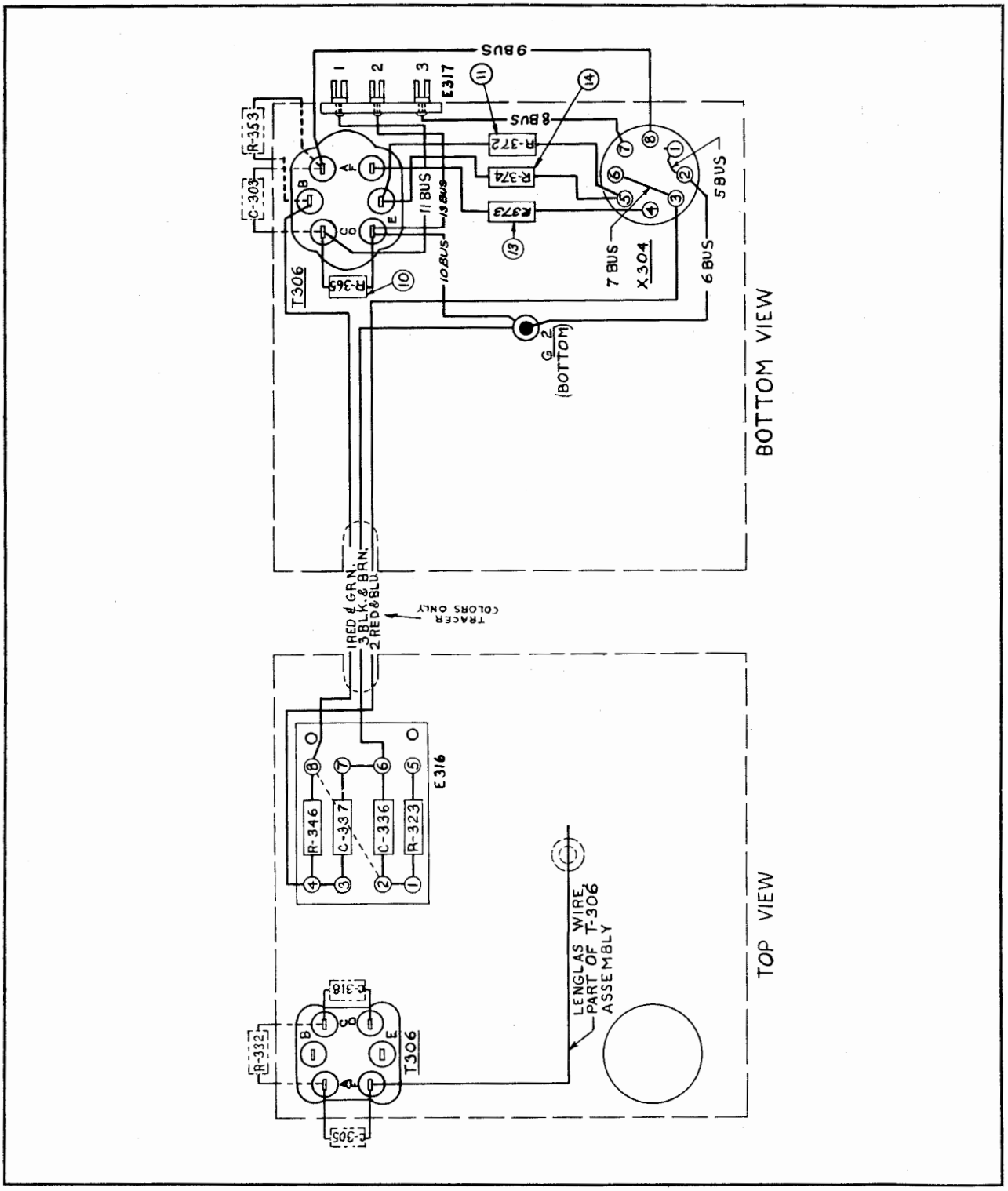


Figure 7-62. RBB/RBC, CW Oscillator Connection Diagram

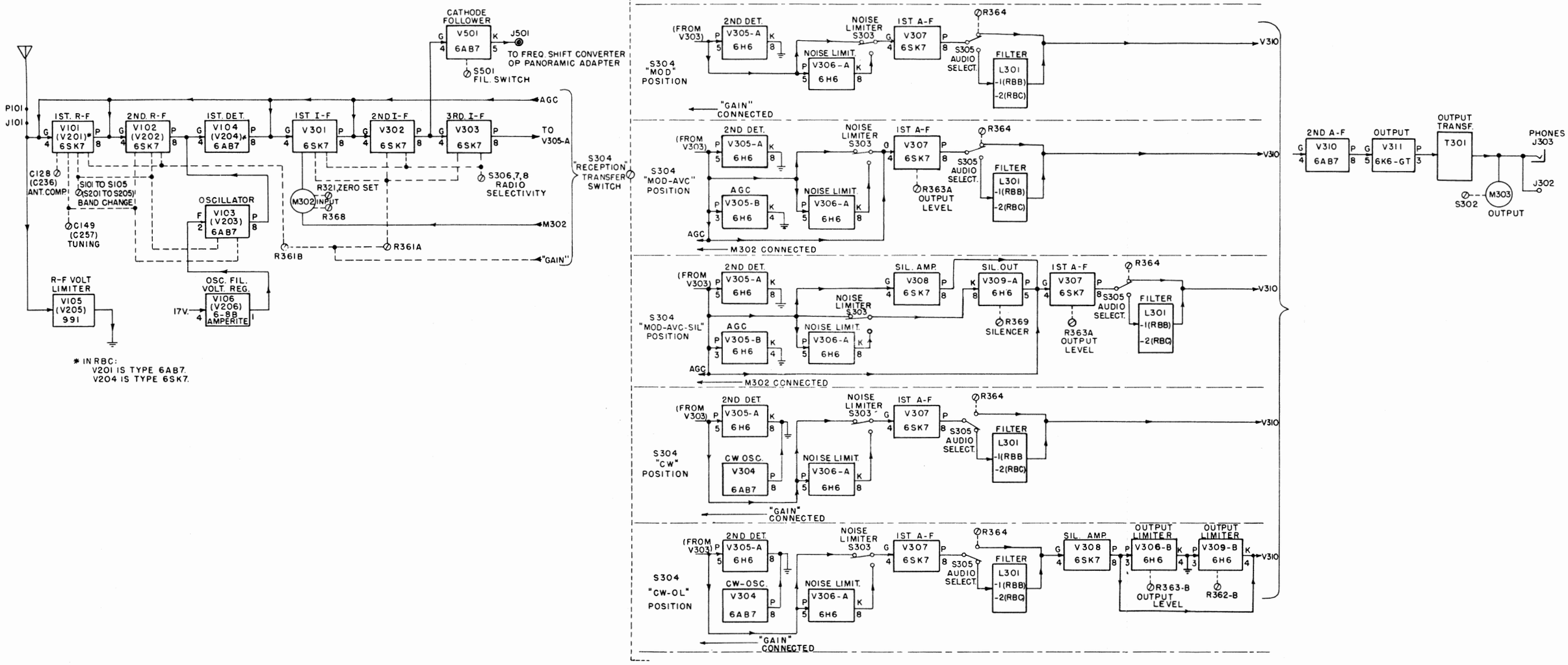


Figure 7-63. Servicing Block Diagram

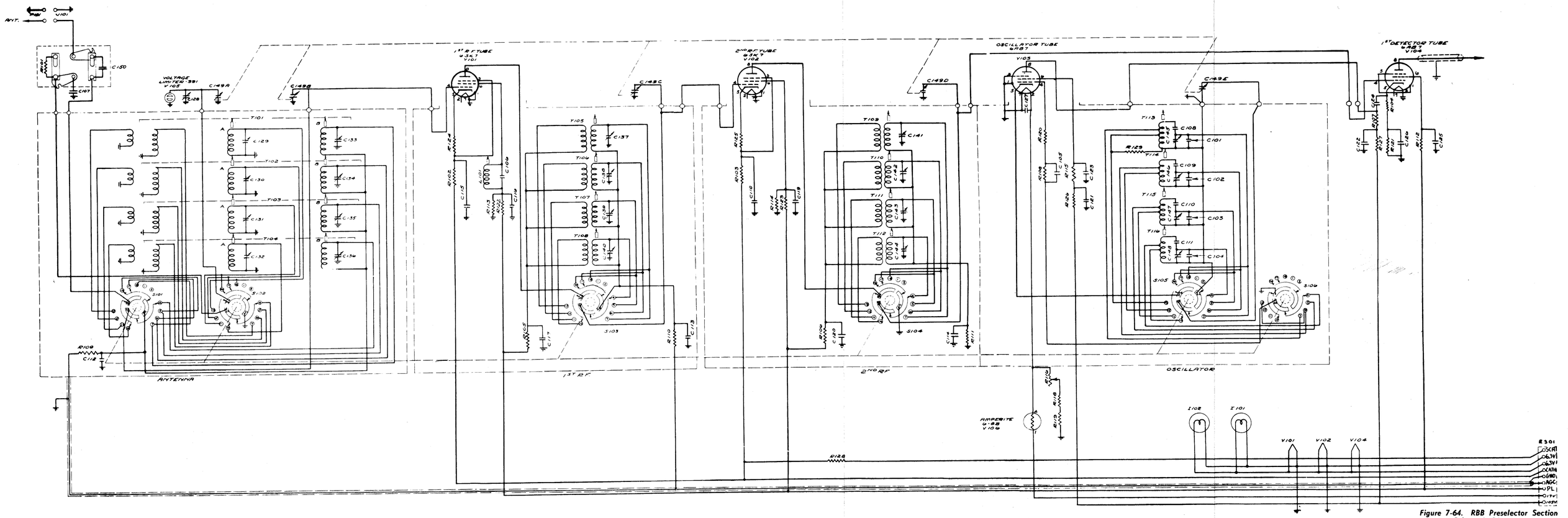


Figure 7-64. RBB Preselector Section Schematic Diagram

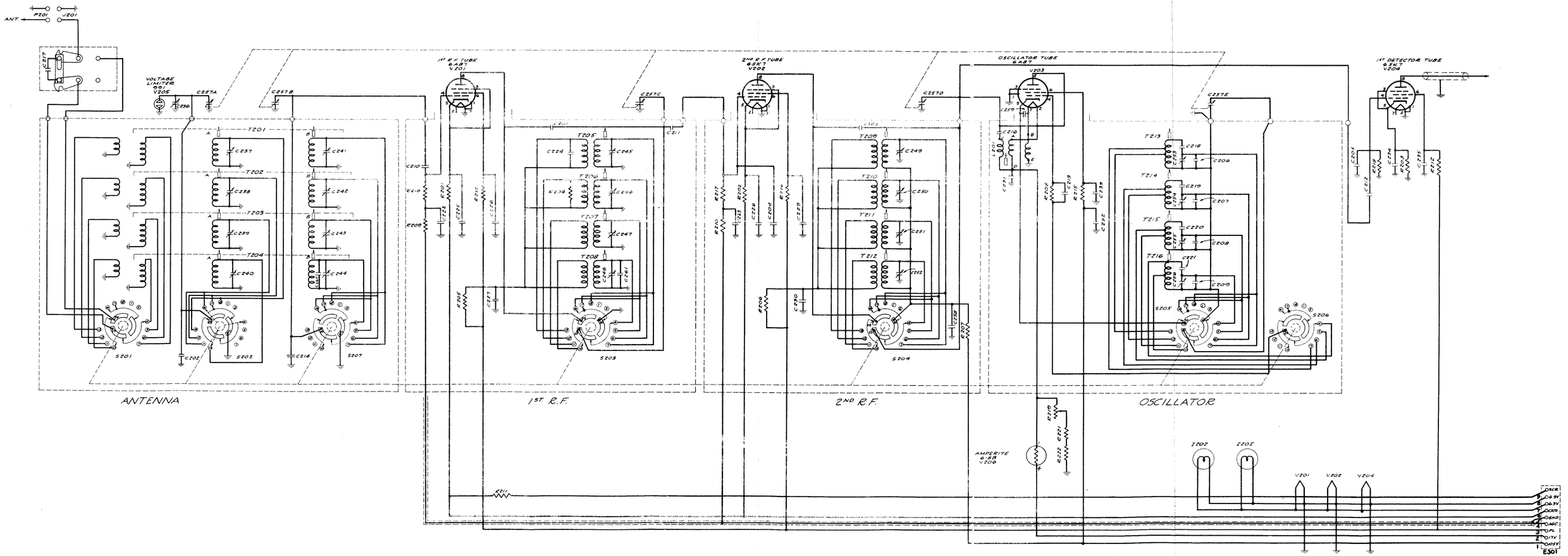


Figure 7-65. RBC Preselector Section Schematic Diagram

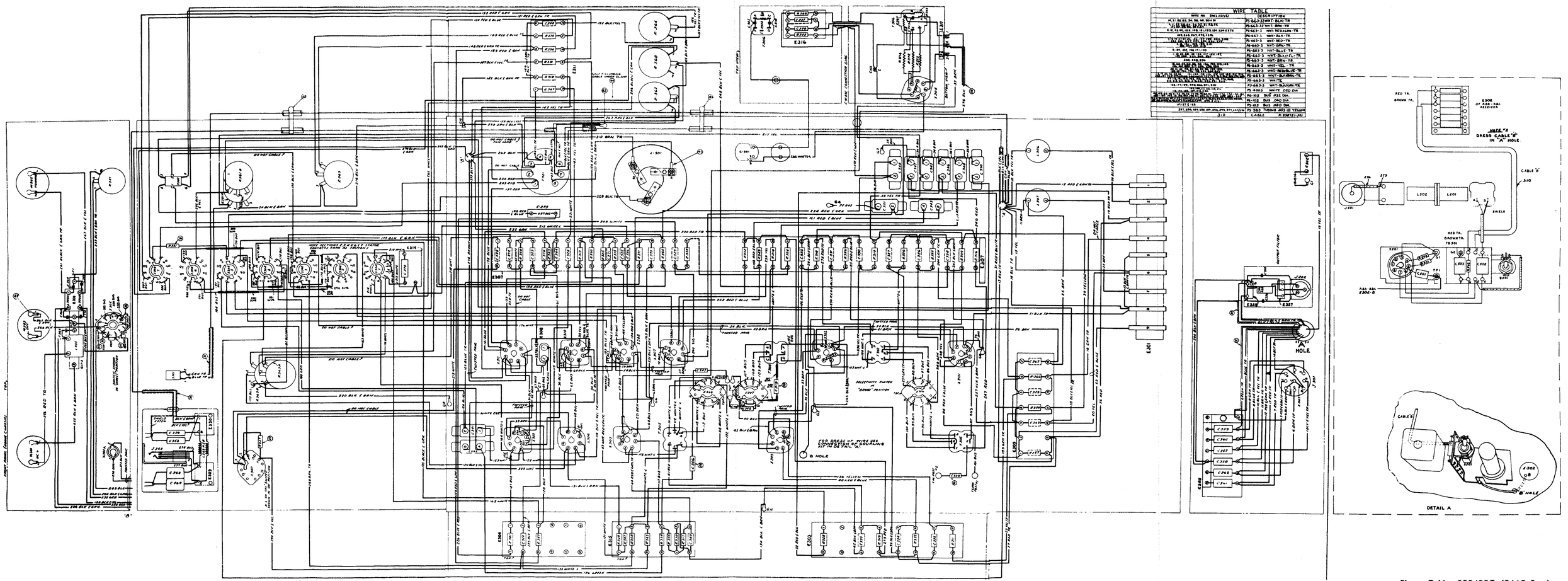


Figure 7-66. RBB/RBC—IF/AF Section Connection Diagram

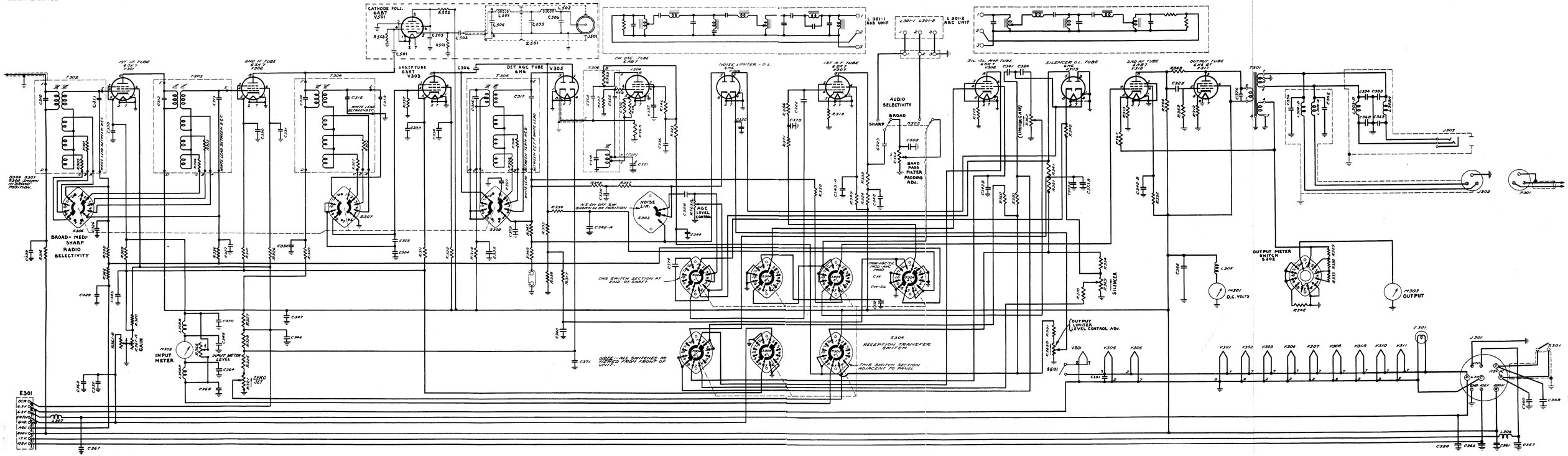


Figure 7-67. RBB/RBC—IF/AF Section Schematic Diagram

SECTION 8

PARTS LIST

TABLE 8-1. WEIGHTS AND DIMENSIONS OF SPARE PARTS BOXES

EQUIPMENT SPARES						STOCK SPARES					
SPARE PARTS BOXES	OVERALL DIMENSIONS (INCHES)			VOLUME (CU. FT.)	WEIGHT (LBS.)	SPARE PARTS BOXES	OVERALL DIMENSIONS (INCHES)			VOLUME (CU. FT.)	WEIGHT (LBS.)
	HEIGHT	WIDTH	DEPTH				HEIGHT	WIDTH	DEPTH		
RBB	6	18	12	0.75	47		Packed in suitable containers as items of a kind in bulk				
RBC	6	18	12	0.75	52						

TABLE 8-2. SHIPPING WEIGHTS AND DIMENSIONS OF SPARE PARTS BOXES

EQUIPMENT SPARES						STOCK SPARES					
SPARE PARTS BOXES	OVERALL DIMENSIONS (INCHES)			VOLUME (CU. FT.)	WEIGHT (LBS.)	SPARE PARTS BOXES	OVERALL DIMENSIONS (INCHES)			VOLUME (CU. FT.)	WEIGHT (LBS.)
	HEIGHT	WIDTH	DEPTH				HEIGHT	WIDTH	DEPTH		
RBB	8½	23	16¾	2	72		Packed in suitable containers as items of a kind in bulk				
RBC	8½	23	16¾	2	73						

TABLE 8-3. LIST OF MAJOR UNITS

SYMBOL GROUP	QUANTITY		NAME OF MAJOR UNIT	NAVY TYPE DESIGNATION
	RBB	RBC		
101-199 301-399 501-599	1		Radio Receiver: RBB-5 RBB-6	 CRV-46147-D CRV-46296-A
201-299 301-399 501-599		1	Radio Receiver: RBC-5 RBC-6	 CRV-46148-D CRV-46297-A
401-499	1	1	Rectifier Power Unit	CRV-20130-B
	1	1	Rack Mounting Cabinet for RBB-6, RBC-6	CRV-10350-A

TABLE 8-4. TABLE OF REPLACEABLE PARTS FOR MODELS RBB-5/6 AND RBC-5/6 RADIO RECEIVING EQUIPMENT

REF. SYMBOL	STOCK NUMBERS SIGNAL CORPS AIR FORCE	NAME OF PART AND DESCRIPTION	LOCATING FUNCTION
101 to 199 301 to 399 401 to 499 501 to 599			
	N16-R-32112-4619	RECEIVER, RADIO: NT #46147-D; AM, CW, MCW, and freq shift signals; for communications; freq range 0.5 to 4.0 mc in 6 bands; input power: 6.3 v AC at 5.4 amps, 17.0 v AC at 0.6 amp, 105.0 v DC at 5 ma (regulated), 200.0 v DC at 78 ma; steel cabinet, table shock mtd; 18-1/8" lg x 20-7/8" d x 14-11/16" h incl shock mts; 15 tube superheterodyne ckt; has BFO; same as NT #46147-C Radio Receiver, except has cathode follower stage and low pass filter (NT #CLP-10335) permanently mtd as part of rec and wired into third IF circuit for take out of freq shift keyed signals for their use in Frequency Shift Converter CV-57/URR and Frequency Shift Converter Comparator Group AN/URA-7 and AN/URA-8 output impedance 70 ohms; on inside cover is a toggle sw used for disconnecting cathode follower if desired; RCA part/dwg MI-8602-D (Outline dwg 629880-1)	
	N16-R-32112-4609	RECEIVER, RADIO: NT #46296-A; AM, CW, MCW, and freq shift signals; for communications; freq range 0.5 to 4.0 mc in 6 bands; input power: 6.3 v AC at 5.4 amps, 17.0 v AC at 0.6 amp, 105.0 v DC at 5 ma (regulated), 200.0 v DC at 78 ma; std rack mtd; 19" lg x 19-5/16" d x 14-5/32" h o/a; dimensions incl NT #10350-A cabinet; 15 tube superheterodyne ckt; has BFO; same as NT #46147-D Radio Receiver, except for rack mtg; cathode follower stage and low pass filter (NT CLP-10335) for take out of freq shift keyed signals for their use in Frequency Shift Converter CV-57/URR and Frequency Shift Converter Comparator Groups AN/URA-7 and AN/URA-8, output impedance 70 ohms; on inside cover is a toggle sw used for disconnecting cathode follower if desired; RCA part/dwg MI-8602-E (Outline dwg 738471-1)	
	N16-C-10626-5618	CABINET: NT #10350-A; for rack mtg RBB/RBC Radio Receivers; aluminum, navy gray enamel finish; empty; 18-7/8" lg x 13-31/32" wd x 19-1/16" h o/a; front has 8 std mtg slots, 4 in ea end, slots are 1/4" wd x 1/2" d, and are spaced 4", 3", 4" c to c, open ends of slots 19" apart; marked w/ NT #10350-A; RCA part/dwg T-622901-506	
	N16-P-67181-2040	RECTIFIER POWER UNIT: NT #20130-B (Cabinet Type) electronic type; output for a single rec: 6.3 v AC at 5.4 amps, 17.0 v AC at 0.6 amp, 105.0 v DC at 5.0 ma, 200.0 v DC at 78.0 ma regulated; output for 2 rec (emergency operation) 5.5 v AC at 10.4 amps, 16.5 v AC at 1.2 amps, 105.0 v DC at 10.0 ma; 175.0 v DC at 133.0 ma regulated; input for a single rec: 110/115/120 v, 55 to 65 cyc single ph 100 w, pf 96%; input for 2 rec (emergency operation) 110/115/120 v, 55 to 65 cyc single ph 160 w, pf 97%; 15" lg x 9-1/2" d x 13" h o/a; incl 5U4G; full-wave rectification; incl filter; RCA part/dwg MI-8668-B (Outline dwg 629880-3)	
	F17-M-86111-5526	SHELF, MOUNTING: NT #10348-A; for rack mtg Rectifier Power Unit NT-20130-B; aluminum, navy gray enamel finish; 17-1/8" lg x 13-31/32" wd x 19" h o/a; "L" shelf shaped; bottom has 4 cutout slots 7/16" wd x 1-3/16" lg on 10-5/16" x 6-3/16" mtg/c for securing power supply; front has 8 standard mtg slots, 4 in ea end, slots are 1/4" wd x 1/2" d and are spaced 4", 3", 4" c to c, open ends of slots 19" apart; RSW; marked w/ NT #10348-A; RCA part/dwg T-622195-501	

201 to 299 301 to 399 501 to 599			
	N16-R-32122-7523	RECEIVER, RADIO: NT #46148-D; AM, CW, MCW, and freq shift signals; for communications; freq range 4.0 to 27.0 mc in 6 bands; input power: 6.3 v AC at 5.4 amps, 17.0 v AC at 0.6 amp, 105.0 v DC at 5 ma (regulated), 200.0 v DC at 78 ma; steel cabinet, table shock mtd; 18-1/8" lg x 20-7/8" d x 14-11/16" h incl shock mts; 15 tube superheterodyne ckt; has BFO; same as NT #46148-C Radio Receiver, except rack mtg has cathode follower stage and low pass filter (NT CLP-10335) permanently mtd as part of rec and wired into third IF circuit for take out of freq shift keyed signals for their use in Frequency Shift Converter CV-57/URR and Frequency Shift Converter Comparator Group AN/URA-7 and AN/URA-8, output impedance 70 ohms; on inside cover is a toggle sw used for disconnecting cathode follower if desired; RCA part/dwg MI-8603-D (Outline dwg 629880-2)	
	N16-R-32122-7513	RECEIVER, RADIO: NT #46297-A; AM, CW, MCW, and freq shift signals; for communications; freq range 4.0 to 27 mc in 6 bands; input power: 6.3 v AC at 5.4 amps, 17.0 v AC at 0.6 amp, 105.0 v DC at 5 ma (regulated), 200.0 v DC at 78 ma; std rack mtd; 19" lg x 19-5/16" d x 14-5/32" h o/a; dimensions incl NT #10350-A cabinet; 15 tube superheterodyne ckt; has BFO; same as NT #46148-D Radio Receiver, except for rack mtg has cathode follower stage and low pass filter (NT #CLP-10335) permanently mtd as part of rec and wired into third IF circuit for take out of freq shift keyed signals for their use in Frequency Shift Converter CV-57/URR and Frequency Shift Converter Comparator Group AN/URA-7 and AN/URA-8, output impedance 70 ohms; on inside cover is a toggle sw used for disconnecting cathode follower if desired; RCA part/dwg MI-8603-E (Outline dwg 738471-2)	
A-101	N16-T-98028-2001	TUNER, ANTENNA: c/o 8 var capacitors RCA part/dwg P-720536-4, 1 ea of ant coils RCA part/dwg P-720559-501, 502, 503, 504, and 1 sw RCA part/dwg P-740465-501; freq 500 kc to 4 mc; 7-1/2" lg x 8-1/8" h x 3" thk o/a; mts by four #6-32 tapped holes on 4.625" x 2.500" mtg/c; marked 620192-501 RBB ant, caution notice, C-129, C-130, C-131, C-132, T-101B, T-102B, T-103B, T-104B, T-101A, T-102A, T-103A, T-104A; RCA part/dwg T-620192-501	Antenna Box
A-102	N16-R-33591-1058	RECEIVER, SUB-ASSEMBLY: 1st RF coil box; c/o 1 cover assem RCA part/dwg P-720464-502, 1 socket assem RCA part/dwg M-421395-501, 1 term board assem RCA part/dwg K-856342-501, 1 RF coil assem RCA part/dwg M-420939-501, 1 RF coil assem RCA part/dwg M-420939-502, 1 RF coil assem RCA part/dwg M-420939-503, 1 RF coil assem RCA part/dwg M-420939-504, 1 term board assem RCA part/dwg P-721107-502, 1 box assem RCA part/dwg P-720467-502, 1 wave trap assem RCA part/dwg K-856759-501, 1 sw assem RCA part/dwg M-420882-1, 4 var capacitors RCA part/dwg P-720536-4; freq range 0.5 to 4.0 megacycles; rectangular box; 8-1/4" lg approx x 7-1/2" wd approx x 3-1/16" h approx o/a; mts by 4 holes on 4-9/64" x 2-1/2" mtg/c, 2 holes w/ #6-32 elastic stop nuts; sw wafers must be held to tol indicated w/ respect to diagonals of sq shaft hole, also wafers to be oriented so rotor cont are ctr w/ respect to the stator cont ctr within p/m 0.008 w/ diagonal in position indicated; RCA part/dwg T-620193-501	1st RF Box
A-103	N16-R-33591-1122	TUNER ASSEMBLY, RF: 2nd RF coil box; c/o 1 socket assem RCA part/dwg M-421395-501, 4 var capacitors RCA part/dwg P-720536-4, 1 RF coil assem RCA part/dwg M-420939-501, 1 RF coil assem RCA part/dwg M-420939-502, 1 RF coil assem RCA part/dwg M-420939-503, 1 RF coil assem RCA part/dwg M-420939-504, term board assem RCA part/dwg K-856342-502, term board assem RCA part/dwg P-721107 507; freq range 0.5 to 4.0 mc; rectangular box; 8.250" lg approx x 7.5" wd approx x 3" h approx o/a; mts by 4 holes on 4-9/64" x 2-1/2" mtg/c, 2 holes w/ #6-32 elastic stop nut; sw wafers must be held to tol indicated w/ respect to diagonals of sq shaft hole, also wafers to be oriented so rotor cont are ctr w/ respect to the stator cont ctr within p/m 0.008 w/ diagonal in position indicated; RCA part/dwg T-620193-503	2nd RF Box
A-104	N16-R-33591-1126	SUB-ASSEMBLY: used for heterodyne osc ckt; c/o 1 box assem RCA part/dwg P-720466-501, 1 cover assem RCA part/dwg P-720464-504, 1 osc coil assem RCA part/dwg M-420951-501, 1 osc coil assem RCA part/dwg M-420951-502, 1 osc coil assem RCA part/dwg M-420951-503, 1 osc coil assem RCA part/dwg M-420951-504, 1 term board assem RCA part/dwg K-856341-501, 1 term board assem RCA part/dwg P-721107-504, 2 sw assem RCA part/dwg M-420882-1, 4 var capacitors RCA part/dwg P-720536-4; rectangular box; 8-1/4" lg x 7.5" wd x 3" h o/a approx; mts by 4 holes on 4-5/8" x 2-1/2" mtg/c, 2 holes w/ elastic stop nuts; sw wafers must be held to tol indicated w/ respect to diagonals at sq shaft hole also wafers to be oriented so rotor cont are ctr w/ respect to the stator cont ctr within p/m 0.008 w/ diagonal in position indicated; RCA part/dwg T-620194-501	Osc Box
A-105	N17-M-75074-3501	MOUNT, VIBRATION: sq mtg; 15 lb load rating; 2-1/4" sq x 1" thk o/a; rubber cushion 2" diam x 1" thk, plate mtd; monel metal sleeve w/ 25/64" diam hole; monel metal mtg plate; four 0.196" diam mtg holes on 1-3/4" mtg/c; Lord type 200P15; RCA part/dwg K-856017-12	For Rec Cabinet Mtg

TABLE 8-4. TABLE OF REPLACEABLE PARTS FOR MODELS RBB-5/6 AND RBC-5/6 RADIO RECEIVING EQUIPMENT

REF. SYMBOL	STOCK NUMBERS SIGNAL CORPS AIR FORCE	NAME OF PART AND DESCRIPTION	LOCATING FUNCTION
A-106	N17-M-75103-3501	MOUNT, VIBRATION: sq mtg; 20 lb load rating; 2-1/4" sq x 1" thk o/a; rubber cushion 2" diam x 1" thk, plate mtd; monel metal sleeve w/ 25/64" diam hole; monel metal mtg plate; four 0.196" diam mtg holes on 1-3/4" x 1-3/4" mtg/c; Lord type 200P20; RCA part/dwg K-856017-13	For Rec Cabinet Mtg
A-201	N16-T-98049-4991	TUNER, ANTENNA: c/o 8 var capacitors RCA part/dwg P-720536-4, 1 ea of ant coil assem RCA part/dwg P-720560-501, 502, 503, 504, and 3 of sw RCA part/dwg M-420882-1; freq 4 mc to 27 mc; 7-5/16" lg x 8-1/8" h x 3-9/16" thk o/a; mts by four #6-32 tapped holes on 4.625" x 2.937" mtg/c; marked 620198-501, RBC ant, T-201A, T-203A, T-204A, C-237, C-238, C-239, C-240; RCA part/dwg T-620198-501	Ant Box
A-202	N16-R-33591-1032	RECEIVER, SUB-ASSEMBLY: 1st RF coil box; c/o 1 RF coil assem RCA part/dwg M-420940-501, 1 RF coil assem RCA part/dwg M-420940-502, 1 RF coil assem RCA part/dwg M-420940-503, 1 RF coil assem RCA part/dwg M-420940-504, 4 var capacitors RCA part/dwg P-720536-4, 1 box assem RCA part/dwg P-720610-501, 1 cover assem RCA part/dwg P-720612-501, 1 term board assem RCA part/dwg K-856342-501, 1 term board assem RCA part/dwg P-721107-501; aluminum box and cover; rectangular shape; 8-3/16" lg approx x 7-1/2" wd x 2-5/8" h o/a approx; RCA part/dwg T-620326-501	1st RF Box
A-203	N16-R-33591-1030	TUNER, RF: c/o 4 var capacitors RCA part/dwg P-720536-4, 1 ea of rf coil assem RCA part/dwg M-420940-501, 502, 503, 505, 1 sw RCA part/dwg M-420882-1, mtd in box assem RCA part/dwg P-720628-501; 500 kc to 4 mc; 7-7/16" lg x 8-1/8" h x 3" thk o/a; mts by four #6-32 tapped holes on 4.625" x 2.500" mtg/c; marked RBB, 2nd RF, 620193-502, T-109, T-110, T-111, T-112, caution notice, 1, 2, 3, 4; two #6-32 tapped terms are on standoff ins and one #6-32 tapped gnd term are on top 15/16" c to c; RCA part/dwg T-620193-502	2nd RF Box
A-204	N16-R-33591-1031	SUB-ASSEMBLY: used for heterodyne osc ckt; c/o 1 box assem RCA part/dwg P-720735-501, 1 osc coil assem RCA part/dwg M-420957-501, 1 osc coil assem RCA part/dwg M-420957-502, 1 osc coil assem RCA part/dwg M-420957-503, 1 osc coil assem RCA part/dwg M-420957-504, 1 term board assem RCA part/dwg K-856341-501, 1 socket assem RCA part/dwg M-421395-501, 4 var capacitors RCA part/dwg P-720536-4, 1 term board assem RCA part/dwg P-721107-509, 1 coil assem RCA part/dwg K-865480-501, 1 cover assem RCA part/dwg P-720468-506; rectangular box; 7-31/32" lg x 7-21/64" wd x 3" h o/a approx; mts by 4 holes 4-5/8" x 2-1/2" mtg/c, two w/ #6-32 elastic stop nut; sw wafers must be held to tol indicated w/ respect to diagonals of sq shaft hole, also wafers to be oriented so rotor cont, are ctr w/ respect to the stator cont ctr within p/m 0.008 w/ diagonal in position indicated; RCA part/dwg T-620194-502	Osc Box
A-205		Same as A-105	For Rec Cabinets Mtg
A-206		Same as A-106	For Rec Cabinets Mtg
A-501	N16-R-33591-1236	RECEIVER, SUB-ASSEMBLY: cathode follower for IF input; c/o 1 shelf assem RCA part/dwg 430359-501, 1 socket RCA part/dwg 456824-501, 1 standoff ins RCA part/dwg 426765-5, 2 capacitors JAN CM40E103K RCA part/dwg 722041-563, 1 capacitor JAN CM20C101K RCA part/dwg 722003-573, 1 resistor JAN RC20BF471K RCA part/dwg 722318-58, 1 resistor JAN RC20BF105K RCA part/dwg 722318-98, 1 resistor JAN RC20BF103K RCA part/dwg 722318-74; "L" shaped shelf; 2" lg approx x 4-1/4" h approx x 3-1/4" wd approx o/a; 4 mtg posts ea having one #6-32 thd x 5/8" d tapped hole, holes located at corners of a guadrilateral w/ sides of 1-1/2", 2", 1-1/16", 2-9/32" respectively; RCA part/dwg P-717888-502	Cathode Follower for IF Input
C-101	N16-C-15988-5272	CAPACITOR, FIXED: NT #484765-5; ceramic dielectric; 15 mmf p/m 5%; neg temp coef 470 (tol ±47) mmf/mf/°C; 500 vdcw; 0.25" diam 0.562" lg; 2 axial wire lead term; phenolic ins; marked w/ mfr name, type #, cap, and tol; Erie type N470K15 ±0.75 mmf; RCA part/dwg K-874805-6	Osc Temp Compensation Capacitor Band No. 1
C-102	N16-C-15917-1938	CAPACITOR, FIXED: NT #481692-A5; ceramic dielectric; 10 mmf p/m 0.5 mmf; neg temp coef 750 (tol ±75) mmf/mf/°C; 500 vdcw; 0.25" diam x 0.562" lg; 2 axial wire lead term; phenolic ins; marked w/ mfr name, type #, cap, and tol; Erie type #N750K10 ±0.5 mmf; RCA part/dwg K-874805-7	Osc Temp Compensation Capacitor Band No. 2

C-103		Same as C-102	Osc Temp Compensation Capacitor Band No. 3
C-104	N16-C-15956-5594	CAPACITOR, FIXED: NT #484766-5; ceramic dielectric; 12 mmf p/m 5%; neg temp coef 470 (tol ±15%) mmf/mf/° C; 500 vdcw; 0.25" diam x 0.562" lg; 2 axial wire lead term; ceramic ins; marked w/ mfr name, type #, cap, and tol; Erie type N470K12±0.6 mmf; RCA part/dwg K-874805-8	Osc Temp Compensation Capacitor Band No. 4
C-105	N16-C-27629-8211	CAPACITOR, FIXED: NT #48895-E5; mica; 50 mmf p/m 5%; 500 vdcw; temp coef ltr E; 25/32" lg x 7/16" wd x 13/64" thk o/a max; molded low loss comp grade BM 262 case; 2 axial wire term; marked w/ Navy type #, RMA color coded; wax impr; Aerovox type #1469; RCA part/dwg P-721133-10	Osc Grid
C-106	N16-C-30167-2086	CAPACITOR, FIXED: NT #48691-D10; mica; 500 mmf p/m 10%; 500 vdcw; temp coef ltr D; 25/32" lg x 7/16" wd x 13/64" thk o/a max; molded low loss comp grade BM 262 case; 2 axial wire lead term; marked w/ Navy type #, RMA color coded, wax impr; Aerovox type #1469; RCA part/dwg P-720473-8	1st RF Wave Trap
C-107	N16-C-30162-1606	CAPACITOR, FIXED: NT #48691-D5; mica; 500 mmf p/m 5%; 500 vdcw; temp coef ltr D; 25/32" lg x 7/16" wd x 13/64" thk o/a max; molded low loss comp grade BM 262 case; 2 axial wire term; marked w/ Navy type #, RMA color coded, wax impr; Aerovox type #1469; RCA part/dwg P-720538-47	Ant Dummy
C-108	N16-C-29523-1620	CAPACITOR, FIXED: NT #481433-F1; mica; 260 mmf p/m 1%; 500 vdcw; temp coef 0 to +0.005%; 1-1/32" lg x 7/16" wd x 13/64" thk o/a max; molded low loss comp grade BM 262 case; 2 axial wire leads; RMA color coded, wax impr; Erie type #M2-J-260; RCA part/dwg P-721081-14	Osc Series Padding Capacitor Band No. 1
C-109	N16-C-29945-2020	CAPACITOR, FIXED: NT #481434-F1; mica; 415 mmf p/m 1%; 500 vdcw; temp coef ltr F; 1-1/32" lg x 7/16" wd x 13/64" thk o/a max; molded low loss comp grade BM 262 case; 2 axial wire term; RMA color coded, wax impr; Erie type #M3J-415; RCA part/dwg P-721081-15	Osc Series Padding Capacitor Band No. 2
C-110	N16-C-30420-7527	CAPACITOR, FIXED: NT #481435-E2; mica; 630 mmf p/m 2%; 500 vdcw; temp coef 0 to +0.01%; 1-1/32" lg x 7/16" wd x 13/64" thk o/a max; molded low loss comp grade BM 262 case; 2 axial wire term; RMA color coded, wax impr; Erie type #M5J-630; RCA part/dwg P-721081-16	Osc Series Padding Capacitor Band No. 3
C-111	N16-C-31053-8122	CAPACITOR, FIXED: NT #481436-E2; mica; 980 mmf p/m 2%; 500 vdcw; temp coef 0 to +0.01%; 1-1/32" lg x 7/16" wd x 13/64" thk o/a max; molded low loss comp grade BM 262 case; 2 axial wire term; RMA color coded, wax impr; Erie type #M7J-980; RCA part/dwg P-721081-17	Osc Series Padding Capacitor Band No. 4
C-112	N16-C-32699-3467	CAPACITOR, FIXED: NT #481425-B10; mica; 5000 mmf p/m 10%; 300 vdcw; temp coef ltr B; 1" lg x 5/8" wd x 11/32" thk o/a; molded low loss comp grade BM 262 case; 2 axial wire term; marked w/ Navy type #, RMA color coded, wax impr; Aerovox #1441W; RCA part/dwg P-720592-5	1st RF Grid Filter
C-113		Same as C-112	2nd RF Grid Filter
C-114		Same as C-112	1st Detector Grid
C-115	N16-C-33622-5588	CAPACITOR, FIXED: NT #48938-B10; mica; 10,000 mmf p/m 10%; 300 vdcw; temp coef ltr B; 1" lg x 5/8" wd x 11/32" thk o/a; molded low loss comp grade BM 262 case; 2 axial wire term; marked w/ Navy type #, RMA color coded, wax impr; Aerovox #1441W; RCA part/dwg P-720592-6	1st RF Cathode Bypass
C-116		Same as C-115	1st RF Screen Bypass
C-117		Same as C-115	1st RF Plate Bypass
C-118		Same as C-115	2nd RF Cathode Bypass
C-119		Same as C-115	2nd RF Screen Bypass
C-120		Same as C-115	2nd RF Plate Bypass
C-121		Same as C-115	Osc Heater Bypass
C-122		Same as C-115	Osc Plate Bypass
C-123	N16-C-33622-5223	CAPACITOR, FIXED: NT #48848-B10; mica; 10,000 mmf p/m 10%; 300 vdcw; temp coef ltr B; 25/32" lg x 25/32" wd x 9/32" thk o/a; molded low loss comp grade BM 262 case; 2 axial wire term; marked w/ Navy type #, RMA color coded, wax impr; Aerovox #1467LS; RCA part/dwg P-720592-7	Osc Screen Bypass
C-124		Same as C-115	1st Detector Cathode Coupling
C-125		Same as C-115	1st Detector Screen Bypass
C-126		Same as C-115	1st Detector Cathode Bypass

TABLE 8-4. TABLE OF REPLACEABLE PARTS FOR MODELS RBB-5/6 AND RBC-5/6 RADIO RECEIVING EQUIPMENT

REF. SYMBOL	STOCK NUMBERS SIGNAL CORPS AIR FORCE	NAME OF PART AND DESCRIPTION	LOCATING FUNCTION
C-127		Same as C-115	Osc Screen Filter
C-128	N16-C-58467-4427	CAPACITOR, VARIABLE: air dielectric; plate meshing type; single sect; max cap 15 mmf p/m 10%; SLC characteristics; 500 v RMS test v; 1" lg excluding shaft and bushing x 15/16" wd x 1-7/32" h; shaft 1/4" diam x 15/32" lg; bushing 9/32" diam x 5/16" lg; extension shaft adj; 5 SLC brass silver pl plates; 360 deg clockwise rotation; ceramic ins; solder lug term; two #4-40 mtg holes in mtg posts on front on 21/32" mtg c; RSW, marked w/ NT # and Mfr prefix letters beryllium copper cont spring silver pl; Hammarlund similar type APC; RCA part/dwg P-720536-5; Navy spec RE13A317	Ant Compensator
C-129	N16-C-59255-6334	CAPACITOR, VARIABLE: NT #481378 air dielectric; plate meshing type, single sect; max cap 2.7 mmf p/m 10%; SLC characteristics; 500 v RMS test v; 7/8" lg excluding shaft and bushing x 15/16" wd x 1-7/32" h o a; shaft 0.249" diam x 15/32" lg; bushing 9/32" diam x 5/16" lg; scdr adj; 9 SLC brass silver pl plates; 360 deg clockwise rotation; ceramic ins; solder lug term; two #4-40 mtg holes in mtg posts on front on 21/32" mtg/c; RSW, marked w/ NT # and mfr prefix letters; beryllium copper cont spring; min torque 200 gm in; Hammarlund similar type APC; RCA part/dwg P-720536-4; Navy spec RE13A317	Ant Link Trimmer Capacitor Band No. 1
C-130		Same as C-129	Ant Link Trimmer Capacitor Band No. 2
C-131		Same as C-129	Ant Link Trimmer Capacitor Band No. 3
C-132		Same as C-129	Ant Link Trimmer Capacitor Band No. 4
C-133		Same as C-129	1st RF Grid Trimmer Capacitor Band No. 1
C-134		Same as C-129	1st RF Grid Trimmer Capacitor Band No. 2
C-135		Same as C-129	1st RF Grid Trimmer Capacitor Band No. 3
C-136		Same as C-129	1st RF Grid Trimmer Capacitor Band No. 4
C-137		Same as C-129	2nd RF Grid Trimmer Capacitor Band No. 1
C-138		Same as C-129	2nd RF Grid Trimmer Capacitor Band No. 2
C-139		Same as C-129	2nd RF Grid Trimmer Capacitor Band No. 3
C-140		Same as C-129	2nd RF Grid Trimmer Capacitor Band No. 4
C-141		Same as C-129	1st Detector Grid Trimmer Capacitor Band No. 1
C-142		Same as C-129	1st Detector Grid Trimmer Capacitor Band No. 2
C-143		Same as C-129	1st Detector Grid Trimmer Capacitor Band No. 3

C-144		Same as C-129	1st Detector Grid Trimmer Capacitor Band No. 4
C-145		Same as C-129	Osc Parallel Trimmer Capacitor Band No. 1
C-146		Same as C-129	Osc Parallel Trimmer Capacitor Band No. 2
C-147		Same as C-129	Osc Parallel Trimmer Capacitor Band No. 3
C-148		Same as C-129	Osc Parallel Trimmer Capacitor Band No. 4
C-149	N16-C-63653-2916	CAPACITOR, VARIABLE: NT #484717; air dielectric; plate meshing type; 5 sect; 13 mmf max to 142.2 mmf p/m 1% per sect; SLW characteristic; 0.012" air gap min except 0.010" air gap min between outside rotor plate and adjacent stator plate; 11-1/4" lg x 3-5/8" wd x 3-33/64" h approx excluding shaft; shaft 3/8" diam x 1-1/2" approx lg; extension shaft adj; 13 invar plates silver pl per sect; 182.5 deg min counterclockwise rotation; ceramic ins; lug term; two 0.218" diam mtg holes on 1.625" mtg/c in bkt at base on front end, one 0.255" wd x 3/8" lg slot in bkt at base on rear end and spaced 10-23/32" c to c from ctr line of front end mtg holes; temp coef limits are +30 to +90; completely shielded externally; shielding between ea sect; silver faced grounding wiper per ea sect, salt spray resistant; shield covers, cad pl; temp coef and serial # stamped on front end plate; RCA part/dwg P-720545-2	Main Tuning
C-150	N16-C-31090-4076	CAPACITOR, FIXED: NT #481657-B10; mica; 1000 mmf p/m 10%; 500 vdcw; temp coef ltr B; 25/32" lg x 7/16" wd x 13/64" thk o/a max; molded low loss comp grade BM 262 case; 2 axial wire term; marked w/ Navy type #, RMA color coded; wax impr; Aerovox #1468LS; RCA part/dwg P-720592-19	Ant Decoupling
C-201	N16-C-25102-6281	CAPACITOR, FIXED: NT #48771-C10; mica; 5 mmf p/m 10%; 500 vdcw; temp coef ltr C; 25/32" lg x 7/16" wd x 13/64" thk o/a max; molded low loss comp grade BM 262 case; 2 axial wire lead term; marked w/ Navy type #, RMA color coded, wax impr; Aerovox type #1469; RCA part/dwg P-720473-1	1st RF Coupling
C-202	N16-C-26447-8686	CAPACITOR, FIXED: NT #48840-D10; mica; 15 mmf p/m 10%; 500 vdcw; temp coef ±0.01%; 25/32" lg x 7/16" wd x 13/64" thk o/a max; molded low loss comp grade BM 262 case; 2 axial wire term; marked w/ Navy type #, RMA color coded, wax impr; Aerovox #1469; RCA part/dwg P-720592-20	Ant Link Circuit Padding
C-203		Same as C-201	2nd RF Coupling
C-204	N16-C-26025-8281	CAPACITOR, FIXED: NT #48710-C10; mica; 10 mmf p/m 10%; 500 vdcw; temp coef ltr C; 25/32" lg x 7/16" wd x 13/64" thk o/a max; molded low loss comp grade BM 262 case; 2 axial wire lead term; marked w/ Navy type #, RMA color coded, wax impr; Aerovox type #1469; RCA part/dwg P-720473-2	2nd RF Circuit Padding
C-205		Same as C-201	1st Detector Circuit Padding
C-206	N16-C-16020-1082	CAPACITOR, FIXED: NT #482926-5; ceramic dielectric; 16 mmf p/m 5%; neg temp coef 330 (tol ±49.5) mmf/mf/°C; 500 vdcw; 0.25" diam x 0.562" lg; 2 axial wire lead term; phenolic ins; marked w/ mfr name, part #, cap, and tol; Erie type #N330K16 ±0.8 mmf; RCA part/dwg K-874805-1	Osc Temp Compensation Capacitor Band No. 1
C-207	N16-C-16084-5272	CAPACITOR, FIXED: NT #484782-5; ceramic dielectric; 20 mmf p/m 5%; neg temp coef 470 (tol ± 47) mmf/mf/° C; 500 vdcw; 0.25" diam x 0.562" lg; 2 axial wire lead term; phenolic ins; marked w/ mfr name, part #, cap, and tol; Erie type N470K20±1 mmf; RCA part/dwg K-874805-2	Osc Temp Compensation Capacitor Band No. 2
C-208	N16-C-16180-7408	CAPACITOR, FIXED: NT #482927-5; ceramic dielectric; 24 mmf p/m 5%; neg temp coef 560 (tol ±10%) mmf/mf/°C; 500 vdcw; 0.250" max diam x 0.562" max lg; 2 axial wire lead term; ceramic ins; marked w/ mfr name, type #, cap, and tol; Erie type N560K24±1.2 mmf; RCA part/dwg K-874805-11	Osc Temp Compensation Capacitor Band No. 3
C-209	N16-C-15956-9803	CAPACITOR, FIXED: NT #484764-5; ceramic dielectric; 12 mmf p/m 5%; neg temp coef 750 (tol ± 75) mmf/mf/° C; 500 vdcw; 0.25" diam x 0.562" lg; 2 axial wire lead term; phenolic ins; marked w/ mfr name, type #, cap, and tol; Erie type N750K12±0.6 mmf; RCA part/dwg K-874805-4	Osc Temp Compensation Capacitor Band No. 4
C-210	N16-C-27634-8686	CAPACITOR, FIXED: NT #48895-D10; mica; 50 mmf p/m 10%; 500 vdcw; temp coef ltr D; 25/32" lg x 7/16" wd x 13/64" thk o/a max; molded low loss comp grade BM 262 case; 2 axial wire lead term; marked w/ Navy type #, RMA color coded, wax impr; Aerovox type #1469; RCA part/dwg P-720473-4	1st RF Coupling
C-211		Same as C-210	2nd RF Voltage Divider Circuit
C-212		Same as C-210	1st Detector Voltage Divider Circuit
C-213		Same as C-210	Osc Grid

CONTRACT NObsr-52028

TABLE 8-4. TABLE OF REPLACEABLE PARTS FOR MODELS RBB-5/6 AND RBC-5/6 RADIO RECEIVING EQUIPMENT

REF. SYMBOL	STOCK NUMBERS SIGNAL CORPS AIR FORCE	NAME OF PART AND DESCRIPTION	LOCATING FUNCTION
C-214		Same as C-202	1st RF Grid Circuit Padding
C-215		Not Used	
C-216	N16-C-15431-4880	CAPACITOR, FIXED: NT #484768-10; ceramic dielectric; 2 mmf p/m 0.2 mmf; neg or pos temp coef 0 (tol +60) mmf/mf/° C; 500 vdcw; 0.25" diam x 0.562" lg; 2 axial wire lead term; phenolic ins; marked w/ mfr name, type #, cap, and tol; Erie type NP0K2+0.2 mmf; RCA part/dwg K-874805-5	Osc Neutralizing
C-217	N16-C-28558-1676	CAPACITOR, FIXED: NT #48674-B10; mica; 100 mmf p/m 10%; 500 vdcw; temp coef ltr B; 25/32" lg x 7/16" wd x 13/64" thk o/a max; molded low loss comp grade BM 262 case; 2 axial wire lead term; marked w/ Navy type #, RMA color coded, wax impr; Aerovox type #1468 LS; RCA part/dwg P-720473-6	Ant Decoupling
C-218	N16-C-31797-5499	CAPACITOR, FIXED: NT #481811; mica; 2000 mmf p/m 5%; 500 vdcw; temp coef ltr E; 25/32" sq x 9/32" thk o/a max; molded low loss comp grade BM 262 case; 2 axial wire lead term; marked w/ Navy type #, RMA color coded; wax impr; Aerovox type #1464; RCA part/dwg P-721747-1	Osc Series Tracking Capacitor Band No. 1
C-219	N16-C-32140-4704	CAPACITOR, FIXED: NT #481812; mica; 2700 mmf p/m 5%; 500 vdcw; temp coef ltr E; 25/32" sq x 9/32" thk; molded low loss comp grade BM 262 case; 2 axial wire lead term; marked w/ Navy type #, RMA color coded, wax impr; Aerovox type #1464; RCA part/dwg P-721747-2	Osc Series Tracking Capacitor Band No. 2
C-220	N16-C-32193-2501	CAPACITOR, FIXED: NT #481813; mica; 3000 mmf p/m 5%; 500 vdcw; temp coef ltr E; 25/32" sq x 9/32" thk o/a max; molded low loss comp grade BM 262 case; 2 axial wire lead term; marked w/ Navy type #, RMA color coded, wax impr; Aerovox type #1464; RCA part/dwg P-721747-3	Osc Series Tracking Capacitor Band No. 3
C-221		Same as C-218	Osc Series Tracking Capacitor Band No. 4
C-222		Same as C-112	1st RF Grid Filter
C-223		Same as C-112	2nd RF Grid Filter
C-224		Same as C-210	1st RF Transf Pri Bypass
C-225		Same as C-115	1st RF Cathode Bypass
C-226		Same as C-115	1st RF Screen Bypass
C-227		Same as C-115	1st RF Plate Bypass
C-228		Same as C-115	2nd RF Cathode Bypass
C-229		Same as C-115	2nd RF Screen Bypass
C-230		Same as C-115	2nd RF Plate Bypass
C-231		Same as C-115	Osc Heater Bypass
C-232		Same as C-115	Osc Screen Bypass
C-233		Same as C-123	Osc Screen Filter
C-234		Same as C-115	1st Detector Cathode Bypass
C-235		Same as C-115	1st Detector Screen Bypass
C-236		Same as C-128	Ant Compensator
C-237		Same as C-129	Ant Link Trimmer Capacitor Band No. 1

C-238		Same as C-129	Ant Link Trimmer Capacitor Band No. 2
C-239		Same as C-129	Ant Link Trimmer Capacitor Band No. 3
C-240		Same as C-129	Ant Link Trimmer Capacitor Band No. 4
C-241		Same as C-129	1st RF Grid Trimmer Capacitor Band No. 1
C-242		Same as C-129	1st RF Grid Trimmer Capacitor Band No. 2
C-243		Same as C-129	1st RF Grid Trimmer Capacitor Band No. 3
C-244		Same as C-129	1st RF Grid Trimmer Capacitor Band No. 4
C-245		Same as C-129	2nd RF Grid Trimmer Capacitor Band No. 1
C-246		Same as C-129	2nd RF Grid Trimmer Capacitor Band No. 2
C-247		Same as C-129	2nd RF Grid Trimmer Capacitor Band No. 3
C-248		Same as C-129	2nd RF Grid Trimmer Capacitor Band No. 4
C-249		Same as C-129	1st Detector Grid Trimmer Capacitor Band No. 1
C-250		Same as C-129	1st Detector Grid Trimmer Capacitor Band No. 2
C-251		Same as C-129	1st Detector Grid Trimmer Capacitor Band No. 3
C-252		Same as C-129	1st Detector Grid Trimmer Capacitor Band No. 4
C-253		Same as C-129	Osc Parallel Trimmer Capacitor Band No. 1
C-254		Same as C-129	Osc Parallel Trimmer Capacitor Band No. 2
C-255		Same as C-129	Osc Parallel Trimmer Capacitor Band No. 3
C-256		Same as C-129	Osc Parallel Trimmer Capacitor Band No. 4
C-257	N16-C-63652-2813	CAPACITOR, VARIABLE: NT #482925; air dielectric; plate meshing type, 5 sect; 13 mmf max to 142.2 mmf p/m 1% per sect; SLW characteristic; 0.112" air gap min except 0.010" air gap min between outside rotor plate and adjacent stator plate; 11-1/4" lg x 3-5/8" h x 3-33/64" wd approx excluding shaft adj, shaft 3/8" diam x 1-1/2" approx lg; extension shaft adj; 13 invar plates silver pl per sect; 182.5 deg min clockwise rotation, ceramic ins; lug term; two 0.218" diam mtg holes on 1.625" mtg/c in bkt at base on front end, one 0.255" wd x 3/8" lg slot in bkt at base on rear end and spaced 10-23/32" c to c from ctr line of front end mtg holes; temp coef limits are -10 to +50; completely shielded externally; shielding between ea sect; shield covers cad pl; temp coef and serial # stamped on front end plate; RCA part/dwg P-720545-1	Main Tuning
C-258	N16-C-33622-5344	CAPACITOR, FIXED: NT #481814; mica; 10,000 mmf p/m 10%; 300 vdcw; temp coef ltr B; 1" lg x 5/8" wd x 11/32" thk o/a max; molded low loss grade BM 262 comp case; 2 axial wire lead terms; marked w/ Navy type #, RMA color coded, wax impr; Aerovox #1441W; RCA part/dwg P-721747-4	Osc Plate Bypass

TABLE 8-4. TABLE OF REPLACEABLE PARTS FOR MODELS RBB-5/6 AND RBC-5/6 RADIO RECEIVING EQUIPMENT

REF SYMBOL	STOCK NUMBERS SIGNAL CORPS AIR FORCE	NAME OF PART AND DESCRIPTION	LOCATING FUNCTION
C-259	N16-C-32699-4608	CAPACITOR, FIXED: NT #481037-B10; mica; 5000 mmf p/m 10%; 300 vdcw; temp coef ltr B; 25/32" sq x 9/32" thk o/a max; molded low loss comp grade BM 262 case; 2 axial wire lead term; marked w/ Navy type #, RMA color coded, wax impr; Aerovox type #1467 LS; RCA part/dwg P-720473-40	Osc Heater Bypass
C-260		Same as C-204	Link Padding Capacitor Band No. 4
C-261		Same as C-204	1st RF Padding Capacitor Band No. 4
C-301		Same as C-128	CW Osc Vernier
C-302	N16-C-15531-9155	CAPACITOR, FIXED: NT #484769-1/2; ceramic dielectric; 3 mmf p/m 0.5 mmf; neg or pos temp coef 0 (tol +60) mmf/mf/°C; 500 vdcw; 7/32" diam x 1/2" lg; 2 axial wire lead term; ceramic ins; marked w/ mfr name, type #, cap, and tol; Erie type #NPOK-3; RCA part/dwg K-874805-9	3rd IF Grid
C-303		Same as C-217	CW Osc Coupling
C-304	N16-C-15758-2916	CAPACITOR, FIXED: NT #482923-10; ceramic dielectric; 7 mmf p/m 10%; neg or pos temp coef 0 (tol +60) mmf/mf/°C; 500 vdcw; 0.250" max diam x 0.562" max lg; 2 axial wire lead term; ceramic ins; marked w/ mfg name, type #, cap, and tol; Erie type #NPOK-7; RCA part/dwg K-874805-10	3rd IF Grid
C-305		Same as C-105	CW Osc Grid
C-306		Same as C-217	AVC Coupling
C-307	N16-C-26732-9606	CAPACITOR, FIXED: NT #48788-D5; mica; 20 mmf p/m 5%; 500 vdcw; temp coef ltr D; 25/32" lg x 7/16" wd x 13/64" thk o/a max; molded low loss comp grade BM 262 case; 2 axial wire term; marked w/ Navy type #, RMA color coded, wax impr; Aerovox type #1469; RCA part/dwg P-720538-1	Diode Secd
C-308	N16-C-31507-4084	CAPACITOR, FIXED: NT #481088-B5; mica; 1500 mmf p/m 5%; 500 vdcw; temp coef ltr B; 25/32" sq x 9/32" thk o/a max; molded low loss comp grade BM 262 case; 2 axial wire term; marked w/ Navy type #, RMA color coded, wax impr; Aerovox type #1467 LS; RCA part/dwg P-720538-44	1st AF Plate
C-309		Same as C-217	Diode
C-310		Same as C-107	1st IF Pri
C-311		Same as C-107	1st IF Secd
C-312		Same as C-107	2nd IF Pri
C-313		Same as C-107	2nd IF Secd
C-314		Same as C-107	3rd IF Pri
C-315		Same as C-107	3rd IF Secd
C-316		Same as C-107	Diode Pri
C-317		Same as C-107	Diode Secd
C-318	N16-C-30156-9532	CAPACITOR, FIXED: NT #481676; mica; 500 mmf p/m 2%; 500 vdcw; temp coef +0.001 to +0.0034%; 1-1/32" lg x 7/16" wd x 13/64" thk o/a max; molded low loss comp grade BM 262 case; 2 axial wire leads; RMA color coded, humidity and salt water immersion proof, Q of 2500 min at 1 mc; Erie type #M4J-500; RCA part/dwg P-721081-13	CW Osc Grid Tank
C-319		Same as C-106	3rd IF Grid Coupling

C-320		Same as C-123	Noise Limiter Bypass
C-321		Not Used	
C-322		Same as C-115	1st AF Plate Coupling
C-323	N16-C-31797-5484	CAPACITOR, FIXED: NT #48856-B5; mica; 2000 mmf p/m 5%; 500 vdcw; temp coef ltr B; 25/32" sq x 9/32" thk o/a max; molded low loss comp grade BM 262 case; 2 axial wire term; marked w/ Navy type #, RMA color coded, wax impr; Aerovox type #1467 LS; RCA part/dwg P-720538-45	1st AF Plate Coupling
C-324		Same as C-112	Output Limiter Coupling
C-325		Same as C-112	Output Tube Grid Coupling
C-326		Same as C-112	1st IF Grid Filter
C-327		Same as C-112	2nd IF Grid Filter
C-328		Same as C-115	Diode Output Coupling
C-329		Same as C-112	AVC Filter
C-330		Same as C-115	2nd IF Cathode Bypass
C-331		Same as C-115	2nd IF Screen Bypass
C-332		Same as C-115	2nd IF Plate Bypass
C-333		Same as C-115	3rd IF Cathode Bypass
C-334		Same as C-115	3rd IF Screen Bypass
C-335		Same as C-115	3rd IF Plate Bypass
C-336		Same as C-115	CW Osc Plate Bypass
C-337		Same as C-115	CW Osc Screen Filter
C-338		Same as C-115	1st IF Cathode Bypass
C-339		Same as C-123	Detector Plate Bypass
C-340		Same as C-259	AVC Filter AF
C-341	N16-C-45773-7716	CAPACITOR, FIXED: NT #481379-10; paper dielectric; 2 sect; 100, 000 mmf; 400 vdcw; HS metal case; 1-11/32" lg x 23/32" wd x 1-1/16" h; castor oil impr and filled; 2 solder lug term 13/16" h located on top spaced 5/8" c to c on ins pillars; no int gnd; recommended mtg dimen are two 0. 173" diam holes on 1-15/16" mtg/c for inverted mtg add one hole 9/16" wd x 1-3/16" lg w/ 9/32" rad ends equally spaced and ctr/w other holes; case finish gray lacquer; marked w/ Navy type #, cap, vdcw, and mfr dwg ref; RCA part/dwg P-720555-57; Navy spec RE13A488	Output Limiter Coupling
C-342	N16-C-52972-9972	CAPACITOR, FIXED: NT #481380-10; paper dielectric; 2 sect; 50, 000 mmf p/m 10% one sect; 125, 000 mmf p/m 10% other sect; 120 vacw both sect; 400 vdcw; HS metal case; 1-11/32" lg x 23/32" wd x 1-1/16" h; castor oil impr and filled; 2 solder lug term 13/16" h located on top, spaced 5/8" c to c on ins pillars; int gnd; recommended mtg dimen are two 0. 173" diam holes on 1-15/16" mtg/c, for inverted mtg add one hole 9/16" wd x 1-3/16" lg w/ 9/32" rad ends equally spaced and ctr w/ other holes; case finish gray lacquer; mark w/ Navy type #, cap, vdcw, and mfr dwg ref; RCA part/dwg P-720555-59; Navy spec RE13A488	
C-342A		Part of C-342	AVC Filter
C-342B		Part of C-342	2nd AF Screen Bypass
C-343	N16-C-53227-3460	CAPACITOR, FIXED: NT #481167-10; paper dielectric; 2 sect; 125,000 mmf p/m 10% ea sect; 400 vdcw; 120 vacw ea sect; HS metal case; 1-11/32" lg x 23/32" wd x 1-1/16" h; castor oil filled and impr; 2 solder lug term 13/16" h located on top, spaced 5/8" c to c on ins pillars; int gnd; recommended mtg dimen are two 0.173" diam holes on 1-15/16" mtg/c, for inverted mtg add one hole 9/16" wd x 1-3/16" lg w/ 9/32" rad ends equally spaced and ctr w/ other holes; case finish gray lacquer; marked w/ Navy type #481167-10, cap, vdcw, and mfr dwg ref; RCA part/dwg P-720555-55; Navy spec RE13A488	

TABLE 8-4. TABLE OF REPLACEABLE PARTS FOR MODELS RBB-5/6 AND RBC-5/6 RADIO RECEIVING EQUIPMENT

REF. SYMBOL	STOCK NUMBERS SIGNAL CORPS AIR FORCE	NAME OF PART AND DESCRIPTION	LOCATING FUNCTION
C-343A		Part of C-343	1st AF Screen Bypass
C-343B		Part of C-343	Output Limiter Amplr Screen Bypass
C-344	N16-C-48813-7716	CAPACITOR, FIXED: NT #48595-A10; paper dielectric; 2 sect; 1 mf p/m 10%; 400 vdcw; 100 vacw; HS metal can; 1-11/32" lg x 23/32" wd x 1-7/8" h; castor oil filled and impr; 2 solder lug term 7/8" h located on top on 5/8" mtg/c; no int gnd connection; mtd w/ mtg bkt RCA part/dwg K-90545-1, bkt w/ 2 mtg holes 0.173" diam spaced 1-15/16" c to c; bkt not incl; marked w/ Navy type #48595-A10 also cap, v rating, and RCA part/dwg #720555-52; RCA part/dwg P-720555-52; Navy spec RE13A488	CW Osc Filter
C-345		Same as C-344	IF Cathode Bypass
C-346		Same as C-344	IF Screen Bypass
C-347		Same as C-344	Plate Supply Bypass
C-348		Same as C-344	1st AF Plate Filter
C-349		Same as C-115	Plate Supply Bypass
C-350		Same as C-344	Output Limiter Control
C-351		Same as C-344	CW Osc Filament Bypass
C-352		Same as C-344	RF Gain Control Bypass
C-353		Same as C-112	Phone Lead Filter
C-354		Same as C-112	Phone Lead Filter
C-355		Same as C-123	Output Plug Filter
C-356		Same as C-123	Output Plug Filter
C-357		Same as C-115	17 V Supply Bypass
C-358		Same as C-115	Filament Bypass
C-359		Same as C-115	AC SW Lead Bypass
C-360		Same as C-115	AC SW Lead Bypass
C-361		Same as C-115	"B" Supply Bypass
C-362		Same as C-115	105 V Osc "B" Supply Bypass
C-363		Same as C-115	RF Gain Control Bypass
C-364		Same as C-115	Tuning Meter Filter
C-365		Same as C-115	Tuning Meter Filter
C-366		Same as C-115	Voltmeter Bypass
C-367		Same as C-115	Filament Bypass
C-368		Same as C-112	Phone Lead Filter

C-369		Same as C-112	Phone Lead Filter
C-370		Same as C-115	Tuning Meter Filter
C-371		Same as C-106	AVC Cathode Bypass
C-372		Same as C-115	Silencer Amplr Grid Bypass
C-373		Same as C-343	
C-373A		Part of C-373	Silencer Amplr Plate Bypass
C-373B		Part of C-373	Silencer Amplr Plate Bypass
C-374		Same as C-115	Silencer Diode Coupling
C-375		Same as C-112	Audio AVC Filter
C-376		Same as C-106	Output Plate Bypass
C-501	N16-C-28558-1681	CAPACITOR, FIXED: mica; JAN type #CM20C101K; 100 mmf p/m 10%; 500 vdcw; temp coef ltr C; 51/64" lg x 15/32" wd x 7/32" thk max; molded thermosetting bakelite case; 2 axial wire lead term; RCA part/dwg P-722003-573; Spec JAN-C-5	Input Coupling
C-502	N16-C-33622-5604	CAPACITOR, FIXED: mica; JAN type #CM40E103K; 10,000 mmf p/m 10%; 300 vdcw; temp coef ltr E; 1-1/32" lg x 41/64" wd x 11/32" thk; molded thermosetting bakelite case; 2 axial wire lead term; RCA part/dwg P-722041-563; Spec JAN-C-5	Output Coupling
C-503		Same as C-502	Plate Supply Bypass
C-504	N16-C-32720-7543	CAPACITOR, FIXED: mica; JAN type #CM35E512J; 5100 mmf p/m 5%; 500 vdcw; temp coef ltr E; 53/64" lg x 53/64" wd x 11/32" thk o/a; molded thermosetting bakelite case; 2 axial wire lead term; RCA part/dwg P-722033-506; Spec JAN-C-5	Low Pass Filter
C-505	N16-C-33622-5237	CAPACITOR, FIXED: mica; JAN type #CM35E103K; 10,000 mmf p/m 10%; 300 vdcw; temp coef ltr E; 53/64" lg x 53/64" wd x 11/32" thk; molded thermosetting bakelite case; 2 axial wire lead term; RCA part/dwg P-722032-563; Spec JAN-C-5	Low Pass Filter
C-506		Same as C-504	Low Pass Filter
E-101	N16-K-700408-516	KNOB: round; black molded comp; for 1/4" diam shaft; two #10-32 set screws; 2-3/4" lg x 1-13/16" h o/a; 2-1/8" base diam; brass insert; shaft hole 5/8" d; ctb 7/8" diam x 3/16" d, 8 equally spaced indents around top edge; incl spin crank attached to edge of knob w/ handle projecting forward at outer rim; RCA part/dwg M-420927-501	Tuning Knob on Front Panel
E-102	N16-K-700400-127	KNOB: round; black bakelite; 1/4" diam shaft; two #8-32 set screws; 2" diam face x 1-1/4" h o/a; 1-3/4" diam base; brass insert; 5/8" d shaft hole; dull satin finish except rear; RCA part/dwg K-856791-1	Band Change Knob on Front Panel
E-103	N16-H-150001-169	KNOB: round; dull black nickel, brass; #8-32 set screw; face diam 1-1/4"; base diam 7/8" x 1-1/16" h; 5/8" min; Natl lock; their Cat #0488; RCA part/dwg K-843730-1	Pull Knobs on Front Panel for Removal of Chassis
E-104	N16-K-700310-987	KNOB: round knob w/ 8 indents 45 deg apart; black molded compound; for 1/4" diam shaft; single #8-32 set screw; grooved pointer filled w/ white lacquer; 1-5/32" diam x 5/8" h o/a; brass insert; ctb; RCA part/dwg M-421027-501	Ant Comp Knob on Front Panel
E-105	N16-R-33591-1233	RECEIVER SUB-ASSEMBLY: for mtg capacitor and resistor; c/o 2 links RCA part/dwg K-866602-1, 1 term board RCA part/dwg M-420895-503, 2 links RCA part/dwg K-856687-5, 1 resistor RCA part/dwg K-867970-350, 1 capacitor RCA part/dwg P-720592-19; mtg for capacitor and resistor; rectangular shape; 1-7/8" lg x 1-7/8" wd x 1-1/2" h o/a approx; two 0.173" diam mtg holes in 1-7/16" mtg/c; RCA part/dwg K-856464-501	Terminal Board TB-7 for Ant Link
E-105A	N17-B-77735-7499	BOARD, TERMINAL: general purpose binding post; 6 solder lug term; term 3/8" between ctr; ceramic ins board; 1-7/8" lg x 1-1/2" wd x 15/16" thk approx o/a; two 0.173" diam mtg holes on 1-7/16" mtg/c; RCA part/dwg M-420895-503	Terminal Board for E-105
E-106	N17-I-69174-6201	INSULATOR, STANDOFF: NT #61172; round post shape; white, Grade L-3 ceramic, weather proofed; 11/16" lg o/a; 1/2" OD; 1 axial mtg hole either end #6-32 tap x 1/4" lg; marked w/ Navy type #; RCA part/dwg K-823568-7	Standoff Ins for Transmission Line

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TABLE 8-4. TABLE OF REPLACEABLE PARTS FOR MODELS RBB-5/6 AND RBC-5/6 RADIO RECEIVING EQUIPMENT

REF SYMBOL	STOCK NUMBERS SIGNAL CORPS AIR FORCE	NAME OF PART AND DESCRIPTION	LOCATING FUNCTION
E-107	*	RECEIVER, SUB-ASSEMBLY: mtg provisions for misc components; c/o 1 term board assem RCA part/dwg K-866365-501, 1 fixed resistor JAN RC20BF472K, 1 fixed resistor JAN RC20BF333K, 1 fixed resistor JAN RC20BF104K, 2 fixed resistor WW 15 ohms p/m 10% RCA part/dwg K-867972-340, 1 fixed capacitor RCA part/dwg P-720592-6; rectangular shape; 3-1/8" lg x 1-3/4" wd x 49/64" h approx; two 0.173" diam mtg holes on 2-5/8" mtg/c; RCA part/dwg P-721107-503	Terminal Board TB-6 Located Against Front Panel of Preselector Unit
E-107A	N17-B-77984-9201	BOARD, TERMINAL: general binding post; 12 solder lug term; term 3/8" between ctr; 3/32" thk lam phenolic board; type PBE per Navy Spec 17-P-5; 3-1/8" lg x 1-3/4"; two 0.173" mtg holes on 2-5/8" mtg/c, term in 2 parallel rows of 6 term ea, 27/64" lg approx; RCA part/dwg K-866365-501	Terminal Board for E-107
E-108		Same as E-306A	1st Detector and Oscillator Plate Components Terminal Board TB5 Mounted on Bracket With X-104 Underside Preselector Chassis on Left Compartment Wall Near Front Panel
E-109		Not Used	
E-110	*	BOARD, TERMINAL: general purpose binding post; 1 term w/ solder lug and #8-32 thd screw connection; lam phenolic board; 2-1/8" lg x 7/8" wd x 5/8" thk approx o/a; two 0.154" diam mtg holes on 1.687" mtg/c; RCA part/dwg K-856344-501	Terminal Board TB-2 for Ant Box A-101
E-111	N17-I-48694-8701	INSULATOR, BUSHING: NT #61260; ring shape; white, isolantite, glazed; 0.425" h o/a; 1/2" OD x 0.173" ID w/ 3/8" OD x 0.050" wd fl one end, 1/8" wd fl one end, 1/8" wd cham other end; wax impr, stamped w/ Navy type #; RCA part/dwg K-818952-13; Navy Spec RE13A317	Ins Bushing for A-101 Ant Box Term Screws
E-112	*	RECEIVER, SUB-ASSEMBLY: mtg provisions for misc components; c/o 1 term board assem RCA part/dwg K-856671-501, 1 fixed resistor JAN RC20BF104J, 1 fixed capacitor RCA part/dwg P-720592-5; rectangular shape; 1-3/4" lg x 1-9/16" wd x 23/32" h o/a; two 0.173" diam mtg holes on 1-1/16" mtg/c; RCA part/dwg P-721107-505	Terminal Board TB-1 for Ant Box A-101
E-112A	*	BOARD, TERMINAL: general purpose binding post; 4 solder lug term; term 3/8" between ctrs; lam phenolic board; 1-3/4" lg x 1-9/16" wd x 15/32" thk approx o/a; two 0.173" diam mtg holes on 1-1/16" mtg/c; term on 2 parallel rows of 2 term ea; RCA part/dwg K-856671-501	Terminal Board for E-112
E-113	*	BOARD, TERMINAL: general purpose binding post 5 term w/ solder lug and #8-32 screw connection; term holes 9/16" c to c no barriers; lam phenolic board; 4" lg x 1-1/8" wd x 5/8" thk approx o/a; two 0.173" diam mtg holes on 3-1/2" mtg/c; end of terminal screw staked to prevent removal; RCA part/dwg K-856342-501	Terminal Board TB-2 for 1st RF Box A-102
E-114		RECEIVER, SUB-ASSEMBLY: mtg provisions for misc components; c/o 1 term board assem RCA part/dwg K-864544-501, 1 fixed resistor JAN RC20BF472K, 1 fixed resistor JAN RC20BF104K, 1 fixed resistor RCA part/dwg K-99080-51, 1 fixed resistor WW 220 ohms 1/2 w RCA part/dwg K-867970-354, 1 fixed resistor JAN RC30BF333K, 1 fixed resistor JAN RC30BF223K, 3 fixed capacitors RCA part/dwg P-720592-6, 1 fixed capacitor RCA part/dwg P-720592-5; rectangular shape; 3-9/16" lg x 1-3/4" wd x 1-7/32" h o/a excluding term; two 0.173" diam mtg holes on 3-3/16" mtg/c; RCA part/dwg P-721107-502	Terminal Board TB-1 for RF Box A-102
E-114A	*	BOARD, TERMINAL: general purpose binding post; 16 brass solder lug term, cad pl; 2 rows term 3/8" between term, 1-3/8" between rows; lam phenolic board; 3-9/16" lg x 1-3/4" wd x 15/32" thk approx o/a; 2 mtg holes 0.173" diam on 3.187" mtg/c; RCA part/dwg K-864544-501	Terminal Board for E-114
E-115		Same as E-111	Ins Bushing for A-102 1st RF Box Term Screws
E-116		Same as E-111	Ins Bushing for A-103 2nd RF Box Term Screws

E-117	*	BOARD, TERMINAL: general purpose binding post; 4 term w/ solder lug and #8-32 screw connection; term holes 9/16" c to c no barriers; lam phenolic board; 4" lg x 1-1/8" wd x 5/8" thk approx o/a; two 0.173" diam mtg holes on 3-1/2" mtg/c; end of term staked to prevent removal; RCA part/dwg K-856342-502	Terminal Board TB-2 for 2nd RF Box A-103
E-118	*	RECEIVER, SUB-ASSEMBLY: mtg provisions for misc components; c/o 1 term board assem RCA part/dwg K-864544-501, 1 fixed resistor JAN RC20BF472K, 1 fixed resistor JAN RC20BF104K, 1 fixed resistor RCA part/dwg K-99080-51, 1 fixed resistor WW 220 ohms 1/2 w RCA part/dwg K-867970-353, 1 fixed resistor, JAN RC30BF333K, 1 fixed resistor JAN RC30BF223K, 3 fixed capacitors RCA part/dwg P-720592-6, 1 fixed capacitor RCA part/dwg P-720592-5; rectangular shape; 3-9/16" lg x 1-3/4" wd x 11/16" d approx o/a; two 0.173" diam mtg holes on 3-3/16" mtg/c; RCA part/dwg P-721107-507	Terminal Board TB-1 for 2nd RF Box A-103
E-118A		Same as E-114A	Terminal Board for E-118
E-119	*	BOARD, TERMINAL: general purpose binding post strip; 3 solder lug term hot tin dipped; 11/16" between ctr; lam phenolic board; 2-15/16" lg x 1-1/8" wd x 3/32" thk; two 0.173" diam mtg holes on 2-7/16" mtg/c; mts by mach screw; RCA part/dwg K-856341-501; Navy Spec 17-P-5	Terminal Board TB-4 for Osc Box A-104
E-120	*	RECEIVER, SUB-ASSEMBLY: mtg provisions for misc components; c/o 1 term board assem RCA part/dwg M-420895-502, 1 fixed resistor JAN RC20BF222K, 1 fixed resistor JAN RC20BF473K, 1 fixed capacitor RCA part/dwg P-720473-4; rectangular shape; 1-7/8" lg x 1-1/2" wd x 9/16" d o/a; two 0.173" diam mtg holes on 1-7/16" mtg/c; RCA part/dwg P-721107-504	Terminal Board TB-1 for Osc Box A-104
E-120A	*	BOARD, TERMINAL: general purpose binding post; 6 brass cad pl solder lug term; term 3/8" c to c in 2 row 1" apart; ceramic grade G wax impr board; 1-7/8" lg x 1-1/2" wd x 33/64" thk o/a; two 0.173" diam mtg holes on 1-7/16" mtg/c; RCA part/dwg M-420895-502	Terminal Board for E-120
E-121		Same as E-111	Ins Bushing for A-104 Osc Box Term Screws
E-122	*	BOARD, TERMINAL: ceramic ins; 1-11/16" lg x 1/2" wd x 1/4" thk o/a; three 0.154" diam mtg holes 5/8" c to c; RCA part/dwg K-864764-1; Navy Spec RE13A317	Terminal Board TB-2 for Osc Box A-104
E-123 to E-128		Not Used	
E-129	N17-C-77409-5501	CONTACT CASE: bkt and spring, sw shaft gnd; c/o 1 mtg bkt RCA part/dwg K-866141-1, 1 spring RCA part/dwg K-866140-1, 2 guides RCA part/dwg K-866142-1; brass bkt, phosphor bronze spring, lam phosphor bronze coin silver cont, silver pl except silver face of cont; 1-1/4" lg x 19/32" wd x 11/32" d approx o/a; 2 mtg holes 0.147" diam on 7/32" x 5/32" x 7/32" mtg/c; RCA part/dwg K-865511-501	Spring and Bracket for A-102, A-103, A-104
E-130 to E-135		Not Used	
E-136	N17-C-79428-7259	CONTACT, TUBE SOCKET: phosphor bronze, silver pl; rectangular; 3/4" lg approx x 1/4" wd approx x 1/32" thk approx; plugs into slotted cont hole in octal socket; one end hot tin dipped; RCA part/dwg M-421395-12	Contact for Octal Sockets X-101 to X-104, X-106
E-201		Same as E-101	Tuning Knob on Front Panel
E-202		Same as E-102	Band Change Knob on Front Panel
E-203		Same as E-103	Front Panel Pull Knobs
E-204		Same as E-104	Ant Control Knob on Front Panel
E-205		Same as E-106	Standoff Ins for Transmission Line
E-206 and E-207		Not Used	
E-208	*	RECEIVER, SUB-ASSEMBLY: mtg provisions for misc components; c/o 1 term board assem RCA part/dwg K-866365-501, 1 fixed resistor JAN RC20BF333K, 1 fixed resistor JAN RC20BF104K, 2 fixed resistors WW 15 ohms p/m 10% RCA part/dwg K-867972-340; rectangular shape; 3-1/8" lg x 1-3/4" wd x 7/16" h o/a; two 0.173" diam mtg holes on 2-5/8" mtg/c; RCA part/dwg P-721107-508	Terminal Board TB-5 Preselector Unit Located Against Front Panel

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*Not furnished as a maintenance part. If failure occurs, do not request replacement unless the item cannot be repaired or fabricated.

TABLE 8-4. TABLE OF REPLACEABLE PARTS FOR MODELS RBB-5/6 AND RBC-5/6 RADIO RECEIVING EQUIPMENT

REF. SYMBOL	STOCK NUMBERS SIGNAL CORPS AIR FORCE	NAME OF PART AND DESCRIPTION	LOCATING FUNCTION
E-208A		Same as E-107A	Terminal Board for E-208
E-209	*	SUB-ASSEMBLY: for mtg capacitors; c/o 1 term board RCA part/dwg M-420895-503, 1 capacitor RCA part/dwg P-720473-6, 2 links RCA part/dwg K-866602-1, 1 link RCA part/dwg K-856687-5; mtg for 1 capacitor; rectangular shape; 1-7/8" lg x 1-7/8" wd x 2-1/2" h approx o/a; two 0.173" diam mtg holes on 1-7/16" mtg/c; RCA part/dwg K-856464-502	Terminal Board TB-6 for Ant Link
E-209A		Same as E-105A	Terminal Board for E-209
E-210	N16-R-33591-1254	RECEIVER, SUB-ASSEMBLY: mtg provisions for misc components; c/o 1 bkt RCA part/dwg M-421561-2, 1 socket assem (X-204), 1 resistor (R-203), 1 resistor (R-218), 1 capacitor (C-205), 1 capacitor (C-212), 2 capacitors (C-234, C-235); irregular shape; 2-3/4" h x 2-1/2" wd x 1-3/4" d o/a; mtd by one 0.219" diam hole; RCA part/dwg M-421561-501	1st Det Component Term Bd TB4 Mtd on Bracket With X-204 Underside Preselector Chassis on Left Compartment Wall Near Front Panel
E-211		Same as E-111	Ins Bushing for A-201 Ant Box Term Screws
E-212		Same as E-113	Terminal Board TB-2 for 1st RF Box A-202
E-213	*	RECEIVER, SUB-ASSEMBLY: mtg provisions for misc components; c/o 1 term board assem RCA part/dwg K-864544-501, 1 fixed resistor JAN RC20BF472K, 1 fixed resistor JAN RC20BF104K, 1 fixed resistor JAN RC20BF124K, 1 fixed resistor WW 220 ohms 1/2 w RCA part/dwg K-867970-354, 3 fixed capacitors RCA part/dwg P-720592-6, 1 fixed capacitor RCA part/dwg P-720592-5; rectangular shape; 3-9/16" lg x 1-15/16" wd x 31/32" h o/a excluding term; two 0.173" diam mtg holes on 3-3/16" mtg/c; RCA part/dwg P-721107-501	Terminal Board TB-1 for 1st RF Box A-202
E-213A		Same as E-114A	Terminal Board for E-213
E-214		Same as E-111	Ins Bushing for A-202 1st RF Box Term Screws
E-215		Same as E-111	Ins Bushing for A-203 2nd RF Box Term Screws
E-216	*	BOARD, TERMINAL: general purpose binding post; 6 term w/ solder lug and #8-32 thd connection; term 9/16" between ctr; lam phenolic board; 4-5/8" lg x 1-1/8" wd x 5/8" thk approx o/a; two 0.173" diam mtg holes on 4-1/8" mtg/c; RCA part/dwg K-864543-501	Terminal Board TB-2 for 2nd RF Box A-203
E-217	*	RECEIVER, SUB-ASSEMBLY: mtg provisions for misc components; c/o 1 term board assem RCA part/dwg K-864308-501, 1 fixed resistor JAN RC20BF472K, 1 fixed capacitor RCA part/dwg P-721747-4; rectangular shape; 2-1/2" lg x 1" wd x 3/4" h o/a; two 0.173" diam mtg holes on 2" mtg/c; RCA part/dwg P-721107-510	Terminal Board TB-2 for 2nd RF Box A-203
E-217A	*	BOARD, TERMINAL: general purpose binding post; 3 solder lug term; term 1-1/8" between ctr; lam phenolic board; 2-1/2" lg x 1" wd x 5/8" thk o/a; two 0.173" diam mtg holes on 2" mtg/c; RCA part/dwg K-864308-501	Terminal Board for E-217
E-218	*	RECEIVER, SUB-ASSEMBLY: mtg provisions for misc components; c/o 1 term board assem RCA part/dwg K-864544-501, 1 fixed resistor JAN RC20BF472K, 1 fixed resistor JAN RC20BF104K, 1 fixed resistor JAN RC20BF124K, 1 fixed resistor WW 220 ohms 1/2 w RCA part/dwg K-867970-354, 3 fixed capacitors RCA part/dwg P-720592-6, 1 fixed capacitor RCA part/dwg P-720592-5; rectangular shape; 3-9/16" lg x 1-15/16" wd x 31/32" h o/a excluding term; two 0.173" diam mtg holes on 3-3/16" mtg/c; RCA part/dwg P-721107-506	Terminal Board TB-1 for 2nd RF Box A-203
E-218A		Same as E-114A	Terminal Board for E-218

E-219		Same as E-119	Terminal Board TB-6 for Osc Box A-204
E-220		Same as E-111	Ins Bushing for A-204 Osc Box Term Screws
E-221	N17-I-69172-6201	INSULATOR, STANDOFF: round post shape; white steatite ceramic; 1/2" h x 1/2" diam o/a; one #6-32 x 7/32" max d tapped hole ctr ea end; 3/16" min depth; Isolantite cat #397-L-1/2; RCA part/dwg K-802900-20	Standoff Ins Between X-203 and Chassis in Osc Box A-204
E-222		Same as E-122	Terminal Board TB-2 for Osc Box A-204
E-223	*	RECEIVER, SUB-ASSEMBLY: mtg provisions for misc components; c/o 1 term board assem RCA part /dwg K-866599-501, 1 fixed resistor JAN RC20BF103K, rectangular shape; 2-1/2" lg x 3/8" wd x 1/2" h approx o/a; two 0.173" diam mtg holes on 2" mtg/c; RCA part/dwg P-721107-509	Terminal Board TB-1 for Osc Box A-204
E-223A	*	BOARD, TERMINAL: general purpose binding post; 2 solder lug term; term 1" between ctr; lam phenolic board; 2-1/2" lg x 3/8" wd x 7/16" thk o/a; two 0.173" mtg holes on 2" mtg/c; RCA part/dwg K-866599-501	Terminal Board for E-223
E-224	N17-I-49509-1582	INSULATOR, BUSHING: ring w/ fl shape; polystyrene bakelite grade XMS-10023; 3/8" lg; 1/2" OD x 1/16" lg fl one end w/ neck 0.377" OD x 5/16" lg; one 1/8" diam axial hole; RCA part/dwg K-865431-1	Feed Through Ins for Osc Box A-204
E-225	N17-I-69202-3301	INSULATOR, STANDOFF: cylindrical pillar; polystyrene bakelite XMS-10023; 3/4" lg; 5/8" diam, #6-32 tap x 3/8" d mtg hole; one end, three 3/32" sq slot, other end 3/16" c to c symmetrical; RCA part/ dwg K-865431-2	Ins for Osc Box A-204
E-226	N17-I-48996-5547	INSULATOR, BUSHING: cylindrical sleeve; polystyrene bakelite XMS-10023; 1/4" h; 1/2" OD 0.378" ID; may be made from RCA part/dwg M-417525, K-855470 and K-854730; RCA part/dwg K-865431-3	Ins for Osc Box A-204
E-227 to E-233		Not Used	
E-234		Same as E-136	Contact for Octal Sockets X-201 to X-206
E-235		Same as E-129	Spring and Bracket for A-202 to A-204
E-301	*	BOARD, TERMINAL: general purpose binding post; 9 term w/ solder lug and #6-32 screw type connections; term 5/8" between ctr; lam phenolic board; 6-5/8" lg x 1-9/16" wd x 3/4" thk approx o/a; two 0.173" diam mtg holes on 6-1/4" mtg/c; RCA part/dwg K-866349-501	Terminal Board TB-311 for Output Plug Filter L-304 Back of J-302, Back Wall of IF/AF Unit Above Chassis
E-302	*	SUB-ASSEMBLY: mtg for capacitors; c/o 6 capacitors RCA part/dwg P-720592-6; 1 term board assem RCA part/dwg K-865237-501; will mt 6 capacitors; rectangular shape; 4-3/4" lg x 1-7/8" wd x 5/8" thk o/a; one 0.173" diam hole for mtg; RCA part/dwg K-871166-501	Terminal Board TB-307 Power Supply Bypass Capacitors On Side Wall Of IF/AF Unit Next To J-301
E-302A	*	BOARD, TERMINAL: general purpose binding post; 14 solder lug term; term 5/8" between holes; lam phenolic board; 4-3/4" lg x 1-7/8" wd x 5/8" thk o/a; one 0.173" diam mtg holes; RCA part/dwg K-865237-501	Terminal Board for E-302
E-303	*	SUB-ASSEMBLY: mtg for resistors and capacitors on term board; c/o 1 term board assem RCA part/ dwg K-864544-501, 1 resistor JAN RC20BF472K RCA part/dwg P-722318-70, 1 resistor JAN RC20BF223K RCA part/dwg P-722318-78, 1 resistor JAN RC20BF104K RCA part/dwg P-722318-86, 1 resistor JAN RC20BF471K RCA part/dwg P-722318-58, 3 capacitors RCA part/dwg P-720592-6; rectangular shape; 3-1/16" lg x 1-3/4" wd x 3/4" thk approx o/a; two 0.173" diam mtg holes on 3.187" mtg/c; all tubing to be dressed straight avoiding direct contact w/ soldered term; RCA part/dwg P-721101-505	Terminal Board TB-305 for 3rd IF (X-303) Rear Underside IF/AF Chassis Against Partition Wall Near X-303
E-303A		Same as E-114A	Terminal Board for E-303
E-304	N16-K-700346-101	KNOB: round knob w/ 8 indents at 45 deg apart; black molded compound; for 1/4" diam shaft; double #8-32 set screw; grooved pointer fill w/ white lacquer; 1-5/8" diam x 7/8" h o/a; brass insert; ctb; RCA part/dwg M-421027-502	Radio Selectivity Output Level Gain, Reception Silencer, Noise Limiter Knobs
E-305		Same as E-104	Zero Set - Add Decibels - Frequency Vernier Knobs

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*Not furnished as a maintenance part. If failure occurs, do not request replacement unless the item cannot be repaired or fabricated.

TABLE 8-4. TABLE OF REPLACEABLE PARTS FOR MODELS RBB-5/6 AND RBC-5/6 RADIO RECEIVING EQUIPMENT

REF. SYMBOL	STOCK NUMBERS SIGNAL CORPS AIR FORCE	NAME OF PART AND DESCRIPTION	LOCATING FUNCTION
E-306	*	SUB-ASSEMBLY: mtg resistors and capacitors on term board; c/o 1 term board assem RCA part/dwg M-420895-501; 2 resistors JAN RC20BF105K RCA part/dwg P-722318-98, 1 capacitor RCA part/dwg P-720592-7; rectangular shape; 3" lg x 1-1/2" wd x 13/16" thk approx o/a; two 0.193" diam holes on 2-9/16" mtg/c; all tubing to be dressed straight avoiding direct contact w/ soldered term; RCA part/dwg P-721101-501	Terminal Board TB-301 for Silencer (V-306, V-309) Front Underside IF/AF Chassis Against Partition Wall Near X-306, X-309
E-306A	*	BOARD, TERMINAL: general purpose binding post; 12 brass cad pl solder lug term; term spaced 3/8" c to c in two rows 1" apart; ceramic grade G wax impr board; 3" lg x 1-1/2" wd x 1-1/2" thk o/a; two 0.173" diam holes on 2-9/16" mtg/c; RCA part/dwg M-420895-501	Terminal Board for E-306
E-307	*	SUB-ASSEMBLY: mtg for resistors and capacitors on term board; c/o 1 term board assem RCA part/dwg M-420891-502, 2 resistors JAN RC20BF105K RCA part/dwg P-722318-98, 2 resistors JAN RC20BF225K RCA part/dwg P-722318-102, 3 resistors JAN RC20BF474K RCA part/dwg P-722318-94, 1 resistor JAN RC20BF681K RCA part/dwg P-722318-60, 3 resistors JAN RC20BF224K RCA part/dwg P-722318-90, 2 resistors JAN RC20BF472K RCA part/dwg P-722318-70, 2 resistors JAN RC20BF104K RCA part/dwg P-722318-86, 1 resistor JAN RC20BF471K RCA part/dwg P-722318-58, 2 resistors JAN RC20BF102K RCA part/dwg P-722318-62, 1 resistor JAN RC20BF682K RCA part/dwg P-722318-72, 1 resistor JAN RC20BF392K RCA part/dwg P-722318-69, 2 resistors JAN RC20BF103K RCA part/dwg P-722318-74, 7 capacitors RCA part/dwg P-720592-6, 5 capacitors RCA part/dwg P-720592-5, 1 capacitor RCA part/dwg P-720538-45, 2 capacitors RCA part/dwg P-720473-8; rectangular shape; 14-1/8" lg x 3-3/8" wd x 1-7/32" thk approx o/a; three 0.173" diam mtg holes on 6-3/8" mtg/c; all tubing to be dressed straight avoiding direct contact w/ soldered term; RCA part/dwg P-721101-506	Terminal Board TB-306 General Purpose, Center Underside IF/AF Chasssis Extending Front to Back
E-307A	*	BOARD, TERMINAL: general purpose binding post; 68 solder lug term; term 3/8" between ctr; lam phenolic board; 14-1/8" lg x 1-3/4" wd x 15/32" thk approx o/a; three 0.173" diam mtg holes on 6-3/4" mtg/c; mtd by 3 mtg bkts 3" lg x 3/8" wd x 0.091" thk o/a, riveted to board; RCA part/dwg M-420891-502	Terminal Board for E-307
E-308	*	BOARD, TERMINAL: general purpose binding post; 1 term w/ solder lug and #6-32 thd screw connections; lam phenolic board; 1-11/16" lg x 5/8" wd x 3/4" thk approx; two 0.154" diam mtg holes on 1.312" mtg/c; RCA part/dwg K-856696-1	Terminal Board TB-309 Diode Link for Microammeter Connection Top Side IF/AF Chassis Between X-310, X-311
E-309	*	SUB-ASSEMBLY: mtg for resistors and capacitors on term board; c/o 1 term board assem RCA part/dwg K-866500-501; 1 resistor JAN RC20BF224K RCA part/dwg P-722318-90, 1 resistor JAN RC20BF393K, RCA part/dwg P-722318-81; 1 resistor RCA part/dwg P-722353-74, 2 capacitors RCA part/dwg P-720592-6, 1 capacitor RCA part/dwg P-720592-5; rectangular shape; 3-7/16" lg x 1-3/4" wd x 13/16" thk approx o/a; two 0.173" diam mtg holes on 2-1/4" mtg/c; all tubing to be dressed straight avoiding direct contact w/ soldered term; RCA part/dwg P-721101-504	Terminal Board TB-304 AVC Filter and Voltage Divider Back Wall Underside IF/AF Chassis
E-309A	*	BOARD, TERMINAL: general purpose binding post; 14 solder lug term; term 3/8" between ctr; lam phenolic board; 3-7/16" lg x 1-3/4" wd x 15/32" thk approx o/a; two 0.173" diam mtg holes on 2-15/16" mtg/c; RCA part/dwg K-866500-501	Terminal Board for E-309
E-310		Same as E-111	Ins Bushing for Term Screws
E-311	*	SUB-ASSEMBLY: mtg for resistors and capacitors on term board; c/o 1 term board assem RCA part/dwg K-866385-501, 2 resistors JAN RC20BF223K RCA part/dwg P-722318-78, 1 resistor JAN RC20BF681K RCA part/dwg P-722318-60, 1 resistor JAN RC20BF563K RCA part/dwg P-722318-83, 1 resistor JAN RC20BF224K RCA part/dwg P-722318-90, 1 capacitor RCA part/dwg P-720538-44; rectangular shape; 3-1/8" lg x 1-3/4" wd x 3/4" thk approx o/a; two 0.173" diam mtg holes on 2-5/8" mtg/c; all tubing to be dressed straight avoiding direct contact w/ soldered term; RCA part/dwg P-721101-503	Terminal Board TB-303 General Purpose Underside IF/AF Chassis Against Outside Wall
E-311		Same as E-107A	Terminal Board for E-311
E-312		Not Used	

E-313	N17-I-50070-5501	INSULATOR, BUSHING: ring w/ fl shape; polystyrene bakelite XMS-10023; 11/32" lg; 5/8" OD x 3/32" lg fl one end w/ neck 0.490" OD x 3/32" lg, two 1/8" diam holes equally spaced either side of ctr and 3/16" c to c; RCA part/dwg K-881103-1	Ins for Vernier Capacitor C-301
E-314	*	SUB-ASSEMBLY: for mtg capacitor; c/o 1 term board K-871328-2; 3 term boards K-8888186-2; 1 capacitor P-720592-6; rectangular shape; 2" lg x 1-9/16" wd x 14/32" thk o/a; two 0.173" diam mtg holes on 13/16" x 1-1/16" mtg/c; mtg holes located diagonally from ea other; RCA part/dwg K-871328-501	Terminal Board TB-310 for C-374 Back End of Reception Switch S-304 Mounting
E-314A	*	BOARD, TERMINAL: mts 0.01 mf capacitor; 3 solder lug term; term 1-1/2" between ctr; lam phenolic board; 2" lg x 1-7/16" wd x 15/32" thk o/a; two 0.173" diam mtg holes on diagonal 13/16" x 1-1/16" mtg/c; RCA part/dwg K-871328-1	Terminal Board for E-314
E-315	*	SUB-ASSEMBLY: mts resistors and capacitors on term board; c/o 1 term board RCA part/dwg M-420895-501, 2 resistors JAN RC20BF105K RCA part/dwg P-722318-98, 2 resistors JAN RC20BF274K RCA part/dwg P-722318-91, 1 resistor JAN RC20BF225K RCA part/dwg P-722318-102, 1 resistor JAN RC20BF394K RCA part/dwg P-722318-93, 1 resistor JAN RC20BF474K RCA part/dwg P-722318-94, 1 resistor JAN RC20BF184K RCA part/dwg P-722318-89, 1 capacitor RCA part/dwg P-720473-40; rectangular shape; 3" lg x 1-1/2" wd x 13/16" thk approx o/a; two 0.173" diam holes on 2-9/16" mtg/c; all tubing to be dressed straight avoiding direct contact w/ soldered term; RCA part/dwg P-721101-502	Terminal Board TB-302 for Detector and Silencer V-305, V-306 Underside IF/AF Chassis Against Partition Wall Near X-305, T-305
E-315A		Same as E-306A	Terminal Board for E-306
E-316	*	SUB-ASSEMBLY: mtg resistors and capacitors; c/o 1 term board RCA part/dwg K-864821-2, 1 resistor JAN RC20BF103K RCA part/dwg P-722318-74, 1 resistor JAN RC20BF124J RCA part/dwg P-722318-209, 2 capacitors RCA part/dwg P-720592-6; rectangular shape; 2-5/16" lg x 1-5/8" wd x 9/16" thk approx o/a; two 0.173" mtg holes on 1-1/8" mtg/c; RCA part/dwg K-864821-501	Terminal Board TB-1 for CW Osc Top Side CW Osc Chassis Against T-306
E-316A	*	BOARD, TERMINAL: general purpose binding post; 8 solder lug term in two parallel rows four ea; term 1-1/2" x 3/8" between term; lam phenolic board; 2-5/16" lg x 1-5/8" wd x 15/32" thk approx o/a; two 0.136" diam mtg holes on 1-1/4" mtg/c; RCA part/dwg K-864821-2	Terminal Board for E-316
E-317	*	BOARD, TERMINAL: general purpose binding post; 3 solder lug term; term 1/2" between ctr; lam phenolic board; 1-1/2" lg x 7/8" wd x 1/2" thk o/a; two 0.173" mtg holes on 1" mtg/c; RCA part/dwg K-874319-501	Terminal Board TB-2 for CW Osc Underside CW Osc Chassis Under T-306
E-318		Same as E-224	Ins for CW Osc (Part of E-333)
E-319	*	BOARD, TERMINAL: mtg board for IF coil; 6 cad pl brass term protruding thru both sides of board; term marked A, C, D, and F on 5/8" x 3/4" mtg/c; term marked B and E on mtg/c, 29/32" c to c; bakelite XMS-10023 board; 1.281" lg x 1.281" wd x 1-3/16" thk o/a; one 0.437" diam hole in ctr; RCA part/dwg M-429650-505	Terminal Board for 1st IF Transf T-302
E-320	*	BOARD, TERMINAL: mtg board for IF coil; 4 cad pl brass term protruding thru both sides of board; 5/8" x 3/4" between ctrs of term; bakelite XMS-10023 board; 1.281" lg x 1.281" wd x 1-3/16" thk o/a; one 0.437" diam mtg hole in ctr; terms marked A, C, D, F; RCA part/dwg M-429650-501	Terminal Board for CW Osc Transf T-306
E-321	*	RESISTOR ASSEMBLY, VARIABLE: c/o 1 bkt RCA part/dwg M-421555-9, 1 pot RCA part/dwg P-721104-2, 1 pot RCA part/dwg P-721104-4, 1 pot RCA part/dwg P-721104-5; rectangular shape; 5-7/16" lg x 2-1/4" wd x 1-7/16" d approx o/a; two 0.173" diam mtg holes on 3-11/16" mtg/c; RCA part/dwg M-421555-502	Z Bracket Mounting R-362 Output Limiter Gain Set Pot, R-364 Bandpass Filter Padding Adj Pot, R-368 Tuning Meter Shunt Pot On Outside Wall IF/AF Unit Under Chassis
E-322 to E-326		Not Used	
E-327	*	BOARD, TERMINAL: for filter coil 3 brass cad pl solder lug term; term spaced 0.55" x 11/16" between ctrs; lam phenolic board 1/16" thk; 1.32" sq x 15/16" thk o/a; mtg bushing in ctr of board 0.380" diam w/ knurled side mts in end of coil form; wax impr board, humidity resistant; RCA part/dwg M-420380-521	Terminal Board for TB-311 for Output Plug Filter L-304
E-328	*	BOARD, TERMINAL: for output plug filter; 2 brass cad pl solder lug term; term 5/8" c to c and ea 3/16" ctr to one edge of board; lam thermosetting board 1/16" thk; 1-1/8" lg x 1-1/16" wd x 5/8" thk approx o/a; two 0.147" diam mtg holes 9/16" c to c and 5/32" ctr ea to one edge of board; board wax impr, humidity resistant, 1 hole 0.128" diam ctr between term for wire-way, 1 nickel pl brass mtg bushing staked in ctr, bushing 0.380" OD x 3/16" h w/ side knurled for engaging filter coil inner surface; RCA part/dwg M-421256-505	Terminal Board TB-311 for Output Plug Filter L-304

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TABLE 8-4. TABLE OF REPLACEABLE PARTS FOR MODELS RBB-5/6 AND RBC-5/6 RADIO RECEIVING EQUIPMENT

REF. SYMBOL	STOCK NUMBERS SIGNAL CORPS AIR FORCE	NAME OF PART AND DESCRIPTION	LOCATING FUNCTION
E-329	*	BOARD, TERMINAL: for phone lead filter; 2 brass cad pl solder lug term; term 13/16" c to c and 3/16" ctr to edge of board; lam phenolic board 1/16" thk; 1-1/4" lg x 1" wd x 11/32" thk approx o/a; one 0.187" diam mtg hole 5/8" c to c w/ RH term; 1 brass mtg bushing staked in ctr, bushing 0.380" OD x 3/16" h w/ side knurled for engaging filter coil form inner surface, board wax impr, humidity resistant; RCA part/dwg K-871374-501	Terminal Board for Phone Lead Filter L-303
E-330	*	BOARD, TERMINAL: for phone lead filter; 2 brass cad pl solder lug term; term 13/16" c to c and 3/16" ctr to edge of board; lam phenolic board 1/16" thk; 1-1/4" lg x 1" wd x 14/32" thk approx o/a; one 0.187" diam mtg hole 5/8" c to c w/ LH term; 1 brass mtg bushing staked in ctr, bushing 0.380" OD x 3/16" h w/ side knurled for engaging filter coil form inner surface, board wax impr, humidity resistant; RCA part/dwg K-871374-502	Terminal Board for Phone Lead Filter L-303
E-331	*	BOARD, TERMINAL: for RF choke; 4 brass cad pl solder lug term; term on 5/8" x 7/8" ctr; lam phenolic board 1/16" thk; 1-1/4" lg x 1" wd x 7/16" thk approx o/a; 1 white nickel pl brass mtg bushing staked in ctr; bushing 0.380" OD x 3/16" h w/ side knurled for engaging inner surface of coil form, board wax impr, humidity resistant; RCA part/dwg M-421256-503	Terminal Board for Input Filter Choke L-308
E-332		Not Used	
E-333	N16-O-55015-7776	OSCILLATOR, RF: freq range 399.5 to 402.5 kc; 217 mw approx output; 3-5/8" lg x 3-1/4" wd x 3-7/8" h approx o/a; integral coil; receives power for rec power rect unit; spacer mtd on top of IF/AF unit chassis; osc coil tuned to 401 kc w/ adj powdered iron core, 1.5 kc p/m from 401 kc tuning by ext var capacitor; RCA part/dwg P-721038-501	CW Osc
E-334		Not Used	
E-335		Same as E-136	Contacts for Octal Sockets X-301 to X-311
E-336		Same as E-103	Pull Knobs on Front Panel For Removal of Chassis
H-101	G41-W-2446	WRENCH: double end hex, Allen type; 5/64" across flats; 2-3/64" lg x 25/32" wd x 5/64" d o/a; steel cad pl; "L" shape 90 deg angle off-set; hex rod; for #8 set screw; Allen Mfg short series; RCA part/dwg K-828505-31	On Partition Wall in Preselector Section for All Set Screws Except H-103
H-102	N41-W-2449-15	WRENCH: double end hex, Allen type; 3/32" across flats; 2-3/16" lg x 27/32" wd x 3/32" d o/a; steel, cad pl; 90 deg off-set; "L" shape hex rod; for #10 and #12 Allen set screw; Allen Mfg short series; RCA part/dwg K-828505-20	On Partition Wall in Preselector Section for H-103
H-103	N43-S-19021-3350	SCREW, SET: Allen drive; chrome molybdenum steel; #10-32; 3/8" lg; cuppoint; 0.0942" across flats hex socket: RCA part/dwg K-8888539-185	For Tuning Knob E-101 and Band Change E-102
H-104	N43-S-13503	SCREW, MACHINE: slot drive; Fil Bind H; SS passivating dip finish; #8-32 thd; 7/16" lg o/a; thd portion 0.11625" lg; 3/8" diam x 1/8" h head; shoulder under head 1/8" lg x 1/4" diam; undercut below shoulder 0.040" wd x d of thd, thd type C, class #2 fit ASA, end cham 1/32" x 45 deg, head slot 0.057" wd x 3/32" d; RCA part/dwg K-837861-1	For Tuning Capacitor C-149
H-201		Same as H-101	On Partition Wall in Preselector Section For All Set Screws Except H-203
H-202		Same as H-102	On Partition Wall in Preselector Section for H-203
H-203		Same as H-103	For Tuning Knob E-201 and Band Change Knob E-202

H-204		Same as H-104	For Tuning Capacitor C-257
H-301 to H-304		Not Used	
H-305	N43-N-9699-350	NUT, LOCK: speed nut type; spring steel, cad pl; for 1/2" diam stud; 0.016" thk stock w/ hex hole in ctr w/ 2 raised V shaped lips for engaging on thd of stud; 29/32" lg x 3/4" wd x 3/16" h approx o/a; special aircraft spring steel material; Tinnerman Prod #867-MI type #1, RCA part/dwg K-881133-1	For IF/AF Unit On Partition Under CW Osc E-333
H-306	N43-N-9699-330	NUT, LOCK: speed nut type; spring steel, cad pl; for 3/8" diam stud; 0.016" thk stock w/ hex hole in ctr w/ 2 raised V shaped lips for engaging on thd of stud; 1" lg x 0.687" wd x 5/32" h approx o/a; spec aircraft spring steel material; Tinnerman Prod #1783-MI, RCA part/dwg K-881133-2	For CW Osc E-333
I-101	N17-L-6305	LAMP, INCANDESCENT: 6-8 V, 0.25 amp, 1.6 w; bulb T-3 1/4 clear; 1-1/8" lg o/a; miniature bayonet base; 3/4 cp, 3000 hr life; burns any position; Mazda 44; RCA part/dwg K-61114-15	Dial
I-102		Same as I-101	Dial
I-201		Same as I-101	Dial
I-202		Same as I-101	Dial
I-301		Same as I-101	Dial
J-101		CONNECTOR, RECEPTACLE: c/o J-101A and J-101B	Ant Connector Receptacle Back Wall of Preselector Chassis
J-101A	N17-C-73411-2793	CONNECTOR, RECEPTACLE: NT #49120; male contact; 1 round male cont; straight type; 7/8" diam x 1-5/16" lg o/a; cyl metal body w/ hex head on one end; mtg thd 3/4-20 x 13/16" lg male thd on term end; 1 solder lug term ctr thd end; RCA part/dwg K-866698-1; Navy Dwg #RA49F215B (Part of J-101)	Ant Jack Casting Used w/ P-101
J-101B	N17-S-250051-163	SHELL CONNECTOR: for mtg ant jack; aluminum die casting; 2-1/8" lg x 1-7/16" wd x 1-19/32" h o/a; 4 mtg holes #6-32 x 1/4" d on 1.062" x 1-3/4" mtg/c; 1 thd female hole 3/4-20 x 1/2" lg w/ ctb 1-3/16" diam x 1/2" d to receive Navy type #49120 concentric jack; RCA part/dwg K-866639-1 (Part of J-101)	Ant Input Jack
J-201		CONNECTOR, RECEPTACLE: c/o J-201A and J-201B	Ant Connector Receptacle Back Wall of Preselector Chassis
J-201A		Same as J-101A (Part of J-201)	Ant Jack Casting Used w/ P-201
J-201B		Same as J-101B (Part of J-201)	Ant Input Jack
J-301	N17-C-73273-8163	CONNECTOR, RECEPTACLE: 9 round female cont; straight type; 1-5/16" lg x 2" wd x 2" d o/a; cyl aluminum body w/ sq mtg fl; molded black bakelite insert; four 0.170" diam mtg holes in fl, csk 0.279" diam x 82 deg on side of fl near thd end, on 1-9/16" x 1-9/16" mtg/c; cable end of body thd w/ 1-3/4"-18 thd 13/16" lg; tropicalized insert; AN-3102-28-4S; RCA part/dwg K-866555-2	Power Receptacle Back Wall of IF/AF Chassis Used w/ P-402
J-302	N17-C-73163-6117	CONNECTOR, RECEPTACLE: NT #49161; 3 rectangular pol female cont; straight type; body 1" across hex nut flats x 1-3/32" lg o/a; cylindrical thd aluminum body w/ 3 hex nuts and shakeproof lock washer; molded black bakelite insert; mts by 13/16"-27 thd full length of body and hex nuts; silver pl conts; Amphenol type #SP-PC3F; RCA part/dwg K-871680-1	Output Receptacle Back Wall at IF/AF Chassis Used w/ P-301
J-303	N17-J-39528-2090	JACK, TELEPHONE: NT #49021A; for 2 cond 0.25" diam plug; 3-1/8" lg x 1/2" wd x 1-1/8" h o/a; J2 cont arrangement; incl hex head thd bushing w/ 3 washers; 7/16" diam mtg hole; RCA part/dwg K-833982-1; Navy spec #RE13A481	Phone Jack on Front Panel
J-501	N17-C-73108-5890	CONNECTOR, RECEPTACLE: NT #49194; 1 round female cont; straight type; 1" sq x 1-1/16" lg o/a; cylindrical die cast zinc, silver pl body, w/ sq fl; molded BM 262, polystyrene insert; 4 mtg holes 0.125" diam on 0.719" sq mtg/c; tropicalized w/ Dowcorning compound #4, Navy type # stenciled or engraved in 1/16" characters, material and finish to Navy spec RE49F167; RCA part/dwg P-255223-1	Output Connector Receptacle for FSC or Panoramic Adaptor
L-101	N16-C-76504-1503	COIL, RF: NT #472137; wave trap; single wnd, universal wnd in three pies; unshielded; 1.888" lg x 1-3/4" wd x 1.312" h o/a; polystyrene form, air core; coil form 1/2" OD x 1-5/16" lg; adj powdered iron core; scdr adj ctr of base end; two 0.154" diam mtg holes on 1.312" mtg/c; 4 solder lug term on mtg end; wax impr, one capacitor 500 mmf incl 400 kc peak p/m 0.1%; RCA part/dwg K-856759-501	1st RF Screen Wave Trap

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TABLE 8-4. TABLE OF REPLACEABLE PARTS FOR MODELS RBB-5/6 AND RBC-5/6 RADIO RECEIVING EQUIPMENT

REF. SYMBOL	STOCK NUMBERS SIGNAL CORPS AIR FORCE	NAME OF PART AND DESCRIPTION	LOCATING FUNCTION
L-201	N16-C-76925-5850	COIL, RF: NT #47941; osc; 3 wnd single layer wnd; unshielded; 2.357" lg x 1-3/4" wd x 1-5/16" d o/a; anode coil 12 turns #30 AWG, 2 heater coils ea 29-1/2 turns #24 AWG, polystyrene bakelite form, powdered iron core slug; form 1/2" OD x 1-11/16" lg; adj powdered iron core slug; scdr adj at ctr base end; two 0.154" diam holes on 1.312" mtg/c; 6 solder lug term on base end; wax impr; RCA part/dwg K-865480-501	Osc Heater Choke
L-301-1	N16-F-32088-9978	FILTER, BAND PASS: NT #53090; 1000 cyc peak p/m 5%, 200 cyc min band wd at 6 db below peak, 450 cyc max band wd at 40 db below peak, response below 725 cyc and above 1275 cyc -40 db min below peak; 5-1/9" h x 4" sq o/a; 100,000 ohms output impedance; rectangular HS metal case; four 0.180" diam holes in fl on 3-3/8" mtg/c; 3 solder lug and screw type term; impr and potted, marked w/ Navy type # and mfr part/dwg #; RCA part/dwg K-901008-501	Band Pass Filter for RBB
L-301-2	N16-F-32088-9901	FILTER, BAND PASS: NT #53091; 1000 cyc p/m 5%, 300 cyc min band wd at 6 db below peak, 1000 cyc max band wd at 40 db below peak, response below 450 cyc and above 1550 cyc -40 db min below peak; 5-1/8" h x 4" sq o/a; 100,000 ohms input impedance, 82,000 ohms output; rectangular HS metal case; four 0.180" diam mtg holes on 3-3/8" x 3-3/8" mtg/c in fl; 3 solder lug and screw type term; impr and potted, marked w/ Navy type # and mfr part/dwg #; RCA part/dwg K-901009-501	Band Pass Filter for RBC
L-302		Not Used	
L-303	N16-C-72955-5501	COIL, RF: NT #47939; choke; 2 wnd bifilar single layer RH close wnd; unshielded; 30 turns #28 AWG ea wnd; 1.843" lg x 1-1/4" wd x 1" d o/a; phenolic form, air core; form 1/2" OD x 1-5/8" lg; 2 mtg holes 0.187" diam, 1 ea end in line on 3/16" x 7/32" mtg/c; 4 solder lug term, 2 on ea end; wax impr; Navy type to be marked on containing package; RCA part/dwg K-865413-501	
L-303A		Part of L-303	Phone Lead Filter
L-303B		Part of L-303	Phone Lead Filter
L-304	N16-C-72665-4959	COIL, RF: NT #472156; choke; 2 wnd, bifilar single layer RH close wnd; unshielded; 25 turns #28 AWG ea end; 2-5/8" lg x 1.320" wd x 1.320" d o/a; lam phenolic form, air core; form 1/2" OD x 2" lg; two 0.147" diam mtg holes on 9/16" mtg/c equally spaced 5/32" from edge of term board; 5 solder lug term, 2 on mtg end, 3 on opposite end; wax impr and dipped; RCA part/dwg M-421251-502	
L-304A		Part of L-304	Output Plug Filter
L-304B		Part of L-304	Output Plug Filter
L-305	N16-C-73023-9303	COIL, RF: NT #47940; choke; single wnd, single layer wnd; unshielded; 25 turns #28 AWG; 1-7/8" lg x 1-1/4" wd x 1" d o/a; lam phenolic form, air core; form 1/2" OD x 1-3/8" lg; mtd by 3/8" ID of form at end opposite term; 2 solder lug term on term board end; wax impr, Navy type # to be marked on containing package; RCA part/dwg K-865458-501	Voltmeter Filter Choke
L-306	N16-C-73232-2872	COIL, RF: NT #47926; choke; single wnd, 4 layer wnd; cylindrical bakelite shield; 0.019 ohm resistance, 14.95 uh inductance, 0.6 amp; 23-1/2 turns #16 AWG; 1.377" max diam x 1.087" nom h, excluding term and mtg attachments; tapped core form powdered iron core; one #6-32 x 3/8" d axial mtg hole in ctr of hex brass post on bottom; 2 solder lug term on top; stencil mfg prefix letters CRV and NT 47926; wax impr, encased in metal shield can; RCA part/dwg K-900676-504	17 V Supply Filter Choke
L-307		Same as L-306	17 V Supply Filter Choke
L-308	N16-C-75849-5144	COIL, RF: NT #47942; choke; 2 wnd, single layer wnd, 1 wnd over other; unshielded; 24 turns #28 AWG incl over first wnd of 25 turns #28 AWG; 1-7/8" lg x 1-1/4" wd x 1" d o/a; lam phenolic form, air core; form 1/2" OD x 1-3/8" lg; mtd by 3/8" ID hole of form at end opposite term; 4 solder lug term on term board end; wax impr; RCA part/dwg K-865458-502	
L-308A		Part of L-308	Input Meter Filter Choke

L-308B		Part of L-308	Input Meter Filter Choke
L-501	N16-C-73329-3531	COIL, RF: low pass filter; single wnd, space wnd; unshielded; 22 uh p/m 10% at 1000° C, 55 turns, 0.010"diam wire; 0.520" diam x 1.187" lg; phenolic lam core; form 1/2" diam x 1.187" lg; mtg by ends of core pressed in bushings; 2 leads 1-1/2" lg terms; RCA part/dwg K-890737-501	Low Pass Filter
L-502		Same as L-501	Low Pass Filter
M-301	N17-M-35566-2026	METER, VOLTMETER: DC; JAN type #MR25Y300DCVV; 0-300 v; round plastic flush mtg case; 2.695" max diam fl x 0.38" thk, 2.21" max diam body x 1.60" max d behind fl; 2% accuracy full scale; D'Arsonval movement; 1000 ohms per v; calibrated for non-magnetic panel; black markings and pointer, buff background; self-contained; three 1/8" diam mtg holes on 1.22" rad, spaced 120 deg apart on fl; 2 stud term 1/4"-28 thd x 0.69" lg; non-glare cover glass, special scale markings; Westinghouse BX-33; RCA part/dwg K-883928-2; spec JAN-I-6	DC Voltmeter
M-302	N17-M-22790-2301	METER, INPUT: DC; 0-120 db; round, plastic, flush mtg case; 2.695" max diam fl x 0.38" thk, 2.21" max diam body x 1.60" max d behind fl; accuracy p/m 2% full scale reading; D'Arsonval movement; 1.0 v basic movement, 1000 ohms per v sensitivity; calibrated for non-magnetic panel; 12 scale division; black markings and pointer, buff background; self-contained; 3 mtg holes 1/8" diam on rad of 1.22" spaced 120 deg apart of fl; 2 stud term 1/4"-28 thd x 0.69" max lg; non-glare cover glass, special scale markings; Westinghouse Elec BX-33; RCA part/dwg M-427798-1; spec JAN-I-6	Input
M-303	N17-M-22712-9201	METER, OUTPUT: DC; JAN type #MR25Y126; -10 to +5 db; round plastic flush mtg case; 2.695" max diam fl x 0.38" thk, 2.21" max diam body x 1.60" max d behind fl; 2% accuracy for full scale reading; D'Arsonval movement; zero power level in 600 ohms is 0.06 mw, v at 0 on scale is 0.6 v, resistance when indicating 0 on scale is 5000/5500 ohms, damping factor at zero mark is 16-200, pointer over swing is 0.5-6%, response time at 0 mark is 0.25-0.35 sec, deflection time to 99% reading on first swing is 0.12-020 sec; calibrated for non-magnetic; black markings and pointer, buff background; self-contained; 3 mtg holes 1/8" diam on rad of 1.22", spaced 120 deg apart on fl; 2 stud term 1/4"-28 thd x 0.69" lg; non-glare cover glass, special scale markings; Westinghouse Electric Co BX-33; RCA part/dwg K-883928-1; spec JAN-I-6	Output
N-101	N16-D-46592-9725	DIAL ASSEMBLY: dial and mask; c/o 1 mask and dial housing assem RCA part/dwg P-721592-501, 1 dial mask assem RCA part/dwg M-420902-501, 1 dial and gear assem RCA part/dwg P-720542-501, 1 gear assem RCA part/dwg K-876563-501, 1 index plate assem RCA part/dwg K-856515-501, 1 idler gear assem RCA part/dwg K-856479-501, 1 stop arm assem RCA part/dwg K-856471-501, 1 mtg plate assem RCA part/dwg K-854150-502, 2 guide assem RCA part/dwg K-856779-501, 1 detent wheel and pinion assem RCA part/dwg K-856475-501, 1 insulated coupling assem RCA part/dwg K-865613-501, marked w/ freq range from 0.5 to 4.0 mc in 4 bands; rectangular shape; 9-5/16" h x 4-11/16" wd x 3-7/8" thk o/a; 4 holes 1/2" d tapped #6-32 x 3/8" d on 8-3/8" x 3-5/8" mtg/c; freq indication on one band only visible at one time; arbitrary scale, range 0-1000 w/ only one indication visible at one time; RCA part/dwg W-303058-501	Dial and Mask
N-102	N16-G-600001-144	GLASS: dial glass for dial and mask; glass, non-glare; 4" wd at top tapered to 2" wd at bottom x 2-3/4" h o/a; top edge curved on 4-3/16" rad; RCA part/dwg K-856440-1	Dial Glass for N-101
N-201	N16-D-46592-9720	DIAL ASSEMBLY: dial and mask; c/o 1 mask and dial housing assem RCA part/dwg P-721592-501, 1 dial and mask assem RCA part/dwg M-420902-502, 1 dial and gear assem RCA part/dwg P-720542-502, 1 gear assem RCA part/dwg K-876563-501, 1 index plate assem RCA part/dwg K-856515-501, 1 idler gear assem RCA part/dwg K-856479-501, 1 stop arm assem RCA part/dwg K-856471-501, 1 mtg plate assem RCA part/dwg K-854150-502, 2 guide assem RCA part/dwg K-856779-501, 1 detent wheel and pinion assem RCA part/dwg K-856475-501, 1 insulated coupling assem RCA part/dwg K-865613-501; freq range from 4.0 mc to 27.0 mc in 4 bands; rectangular shape; 9-5/16" h x 4-11/16" wd x 3-7/8" thk o/a; four 1/2" d tapped #6-32 x 3/8" d on 8-3/8" x 3-5/8" mtg/c; freq indication on one band only visible at one time; arbitrary scale range 0-1000 w/ only one indication visible at one time; RCA part/dwg W-303058-502	Dial and Mask
N-202		Same as N-102	Dial Glass for N-201
O-101	N17-C-98379-2293	COUPLING, FLEXIBLE: shaft ins; c/o 1 bushing assem RCA part/dwg K-875997-501, 1 bushing assem RCA part/dwg K-875997-502, 1 coupling ring RCA part/dwg K-875993-1, 4 spacer RCA part/dwg K-875990-1, 4 spacer RCA part/dwg K-875990-2, 1 insulator RCA part/dwg K-875991-1, 1 arm RCA part/dwg K-875995-1; all metal parts white nickel pl; wheel shape; 2-1/2" OD x 1-9/32" lg o/a; two 0.3775" axial holes for 3/8" shafts, one ctr ea bushing, 4 radial #8-32 tapped set screw holes, 2 in ea bushing; RCA part/dwg M-422864-501	Coupling for Tuning Capacitor C-149
O-102	N17-S-46782-3351	SPRING: flat type; for rec safety spring; #14 ga band S phosphor bronze sheet; 3" lg x 5/8" wd x 0.064" thk o/a; two 0.128" diam mtg holes equally spaced on 5/16" ctr 3/16" from one end to ctr and two 0.173" diam mtg holes similarly spaced at other end; RCA part/dwg K-850922-1	Safety Spring for Rec Chassis

TABLE 8-4. TABLE OF REPLACEABLE PARTS FOR MODELS RBB-5/6 AND RBC-5/6 RADIO RECEIVING EQUIPMENT

REF. SYMBOL	STOCK NUMBERS SIGNAL CORPS AIR FORCE	NAME OF PART AND DESCRIPTION	LOCATING FUNCTION
O-103	N16-P-403081-104	SPRING: flat type; for ant jack; phosphor bronze sheet nickel pl; 2-17/32" lg x 1-27/32" wd x 1/4" d o/a; four 0.173" diam mtg holes on 1-3/4" x 1-1/16" mtg/c; rectangular disk shaped w/ serrated edges; RCA part/dwg K-865428-1	Grounding Spring for Ant Jack J-101A
O-104	N17-S-46788-6001	SPRING: flat type; for cont spring; phosphor bronze sheet white nickel pl; 5-9/32" lg x 1/4" h x 1/2" wd approx o/a; five 0.154" diam mtg holes equally spaced on 1-1/8" mtg/c; 105 deg angle strip w/ one side serrated; RCA part/dwg K-865594-1	Contact Spring for Strip Near C-149
O-105	N16-H-76701-1022	HOLDER, TOOL: torsion type; for Allen wrench; 0.020" diam steel music wire, cad pl; 3/16" h x 5/8" wd x 1-25/64" lg o/a; 16 turns; RH turns; eye term parallel on same side of coil; term 5/32" ID on 1-3/16" mtg/c; RCA part/dwg K-844671-9	Retaining Spring for Allen Wrenches
O-106 to O-108		Not Used	
O-109	N17-S-46730-4605	SPRING: helical extension type; for dial movement; 0.020" diam phosphor bronze spring wire finish #100; 11/16" lg x 3/8" wd x 3/16" d o/a; 3/16" body diam; 19-1/2 turns; RH turns; hook term one end, other end 90 deg bend 9/32" from ctr spring; RCA part/dwg K-856508-2	Spring for Dial and Mask N-101
O-110	N17-S-46667-5101	SPRING: helical extension type; for dial and mask movement; 0.054" diam music wire, cad pl finish; 1-29/64" lg x 0.467" OD, o/a; 8 turns; LH; parallel hook term; term bent on 0.180" rad; located on 1-3/64" mtg/c; RCA part/dwg K-854194-5	Spring for Dial and Mask N-101
O-111		Not Used	
O-201		Same as O-102	Safety Spring for Rec Chassis
O-202		Same as O-103	Grounding Spring for Ant Jack J-201A
O-203	N17-C-77417-3687	SPRING: flat type; for cont spring; phosphor bronze, white nickel pl; 4-27/32" lg x 1/2" wd x 19/64" d o/a; three 0.154" diam mtg holes equally spaced on 1-3/4" mtg/c; trough shape strip approx 1/4" wd at bottom x 1/2" wd at top w/ both edges serrated; RCA part/dwg K-865606-1	Contact Spring Located Near V-202
O-204		Not Used	
O-205		Same as O-104	Contact Spring for Strip Near C-257
O-206		Same as O-105	Spring for Allen Wrenches
O-207 to O-209		Not Used	
O-210		Same as O-109	Spring for Dial and Mask N-201
O-211		Same as O-110	Spring for Dial and Mask N-201
O-212		Not Used	
O-213		Same as O-101	Coupling for Tuning Capacitor C-257
O-301	N16-P-403081-103	SPRING: flat type; for power receptacle; 0.10" thk phosphor bronze sheet, extra hard white nickel pl; 2-13/32" sq x 1/4" d o/a; four 0.173" diam mtg holes on 1-9/16" mtg/c; sq shape w/ serrated edges w/ one hole 1-11/16" diam in ctr; RCA part/dwg K-866512-1	Grounding Spring for Power Receptacle J-301

O-302	*	SHAFT: for tuning knob; SS; round rod w/ one end flat; 1-13/16" lg x 0.249" +0.0005" -0.001" diam o/a; u/w knob and coupling w/ 1/4" diam shaft holes and set screw mtg; flat 5/16" lg x 0.216" thk; RCA part/dwg K-866625-1	Shaft Connecting Knob E-305 to Coupling O-305
O-303	N16-P-403081-105	SPRING: flat type; for output receptacle; 0.0159" thk phosphor bronze sheet, extra hard white nickel pl; 1-5/8" diam x 1/4" d o/a; 27/32" diam hole in ctr; round disk shape w/ serrated edges; RCA part/dwg K-866544-1	Grounding Spring for Output Receptacle J-302
O-304		Same as O-102	Safety Spring for Rec Chassis
O-305	N17-C-98378-3901	COUPLING, FLEXIBLE: for insulation of 1/4" diam shaft; brass, nickel pl and phenolic ins wax impr; wheel shape; 1-1/16" diam x 11/16" lg o/a; 2 radial mtg holes tapped #8-32, one in ea hub; ins disk 0.022" thk x 1/2" ID lam bakelite; RCA part/dwg K-866618-2	Coupling for Shaft O-307 w/ C-301 and O-302
O-306	2Z3273-129 N16-C-92551-5501	COUPLING, RIGID: sleeve type; 1/4" shaft opening at ea end; 2 set screw holes tapped #8-32 on 5/8" mtg/c; 1/2" diam x 1" lg o/a; SS passivating finish; RCA part/dwg K-866658-1	Coupling for Shaft Connecting Sw-308
O-307	*	SHAFT: for var capacitor; SS; round rod w/ ea end flat; 7-3/8" lg x 0.249" +0.0005" -0.001" diam o/a; u/w capacitor and coupling w/ 1/4" shaft holes and set screw mtg; flat ea end 3/8" lg x 0.216" thk; RCA part/dwg K-866625-3	Shaft Connecting C-301 to Coupling O-305
P-101	N17-C-71120-4869	CONNECTOR, PLUG: NT #49121-A; female cont; one round female cont; straight type; 13/16" diam x 2-7/8" lg o/a; cylindrical metal body; mtd by insertion of cont end into coax jack Navy type #49120; incl knurled cable nut; RCA part/dwg K-866698-2; Navy dwg #RA49F216G	Ant Input Plug for J-101A
P-102	N17-C-71107-8086	ADAPTER, ANTENNA: NT #49152; for adapting coax plug receptacle to binding post; c/o 1 CR type #138-X binding post axially mtd on cylindrical ins body w/ axial round female cont protruding from other end; round; 11/16" approx diam x 1-23/32" lg o/a; mts by insertion of cont end into coax jack NT #49120; marked w/ NT #49152 on containing package; RCA part/dwg K-868940-1; Navy dwg #RA49AA225A	Ant Input Adapter for Use w/ J-101A
P-201		Same as P-101	Ant Input Plug for J-201A
P-202		Same as P-102	Ant Input Plug for J-201A
P-301	N17-C-71464-5859	CONNECTOR, PLUG: NT #49160; male cont; 3 round female cont pol; straight type; 2-5/16" lg x 7/8" diam; cylindrical metal body; cable opening 0.281" ID; mts by coupling nut; incl cable guard; Amphenol their type #MC3M; RCA part/dwg K-871681-1	Output Plug Used w/ J-302
P-301A	N17-A-27451-1012	ADAPTER, CONNECTOR: NT #49509; female both ends; 90 deg angle type; adapts cable to NT #49160 connector at 90 deg angle; 1-5/8" lg x 7/8" d x 1-3/16" wd approx o/a; brass white nickel pl L shape, locking; lam phenolic, wax impr insert; 1/2" diam cable opening; captive coupling nut w/ 5/8"-27 female thd one end; cable clamp other end; RCA part/dwg MX-247930-501	Output Plug Adapter Interchangeable w/P-301
R-101	N16-R-68357-7426	RESISTOR, FIXED: NT #63678-101; WW; 100 ohms p/m 10%; 1/2 w at 40° C max continuous oper temp; 15/64" diam x 21/32" lg; bakelite coated, humidity, and fungus resistant; 2 axial wire lead term; RMA color coded; IRC type #BW-1/2; RCA part/dwg K-867970-350	Ant Series
R-102	N16-R-49598-811	RESISTOR, FIXED: comp; 120 ohms p/m 10%; 1/2 w; characteristic F; 21/32" max lg x 7/32" diam max; bakelite coated, humidity, and fungus resistance; axial wire lead term; RMA color coded; AB type EB; RCA part/dwg K-99080-51	1st RF Cathode Bias
R-103		Same as R-102	2nd RF Cathode Bias
R-104	N16-R-49922-811	RESISTOR, FIXED: comp; JAN type #RC20BF102K; 1000 ohms p/m 10%; 1/2 w; characteristic F; 0.406" lg x 0.175" diam; ins, RSW, and humidity; 2 axial wire leads #21 AWG 1-1/2" lg; RCA part/dwg P-722318-62; spec JAN-R-11	1st Detector Cathode Bias
R-105	N16-R-50129-811	RESISTOR, FIXED: comp; JAN type #RC20BF472K; 4700 ohms p/m 10%; 1/2 w; characteristic F; 0.406" lg x 0.175" diam; ins, RSW, and humidity; 2 axial wire leads #21 AWG 1-1/2" lg; RCA part/dwg P-722318-70; spec JAN-R-11	1st RF Plate Filter
R-106		Same as R-105	2nd RF Plate Filter
R-107		Same as R-105	Osc Plate
R-108	N16-R-50480-811	RESISTOR, FIXED: comp; JAN type #RC20BF473K; 47,000 ohms p/m 10%; 1/2 w; characteristic F; 0.406" lg x 0.175" diam; ins, RSW, and humidity; 2 axial wire leads #21 AWG 1-1/2" lg; RCA part/dwg P-722318-82; spec JAN-R-11	Osc Grid Leak

CONTRACT NObsr-52028

*Not furnished as a maintenance part. If failure occurs, do not request replacement unless the item cannot be repaired or fabricated.

TABLE 8-4. TABLE OF REPLACEABLE PARTS FOR MODELS RBB-5/6 AND RBC-5/6 RADIO RECEIVING EQUIPMENT

REF. SYMBOL	STOCK NUMBERS SIGNAL CORPS AIR FORCE	NAME OF PART AND DESCRIPTION	LOCATING FUNCTION
R-109	N16-R-50633-811	RESISTOR, FIXED: comp; JAN type #RC20BF104K; 100,000 ohms p/m 10%; 1/2 w; characteristic F; 0.406" lg x 0.175" diam; ins, RSW, and humidity; 2 axial wire leads #21 AWG 1-1/2" lg; RCA part/dwg P-722318-86; spec JAN-R-11	1st RF Grid
R-110		Same as R-109	2nd RF Grid Filter
R-111		Same as R-109	1st Detector Grid
R-112		Same as R-109	1st Detector Screen
R-113	N16-R-50373-231	RESISTOR, FIXED: comp; JAN type #RC30BF223K; 22,000 ohms p/m 10%; 1 w; characteristic F; 3/4" max lg x 0.280" max diam; ins, humidity, and salt water immersion resistant; 2 axial wire lead term; JAN std color coded; RCA part/dwg P-722333-78; spec JAN-R-11	1st RF Screen
R-114		Same as R-113	2nd RF Screen
R-115	N16-R-50012-811	RESISTOR, FIXED: comp; JAN type #RC20BF222K; 2200 ohms p/m 10%; 1/2 w; characteristic F; 0.406" lg x 0.175" diam; ins, RSW, and humidity; 2 axial wire lead term #21 AWG 1-1/2" lg; RCA part/dwg P-722318-66, spec JAN-R-11	Osc Screen
R-116	N16-R-89891-9810	RESISTOR, VARIABLE: NT#636080-L10; WW; 40 ohms p/m 10%; 4 w; 3 solder lug term; encl bakelite case w/ metal cover 1-25/32" diam x 31/32" d; slotted SS shaft 1/4" diam x 5/8" lg from mtg surface; linear taper; ins cont arm; normal torque; mtg bushing 3/8"-32 x 5/16" lg; marked w/NT # shaft slot parallel w/cont arm, arm nickel silver, bushing brass nickel pl, wnd enamel covered, petrolatum coated moving parts and resistance wnd; RCA part/dwg P-720471-14	Osc Heater Shunt Potentiometer
R-117		Not Used	
R-118	N16-R-68321-2361	RESISTOR, FIXED: NT #63705-10; WW; 15 ohms p/m 10%; 2 w at 130° C max continuous oper temp; 11/32" diam x 1-25/32" lg; bakelite coating, humidity, and fungus resistant; 2 axial wire lead term; RMA color coded; IRC type #BW-2; RCA part/dwg K-867972-340	Osc Heater Shunt
R-119		Same as R-118	Osc Heater Shunt
R-120	N16-R-49706-811	RESISTOR, FIXED: comp; JAN type #RC20BF331K; 330 ohms p/m 10%; 1/2 w; characteristic F; 0.406" lg x 0.175" diam; ins, RSW, and humidity; 2 axial wire lead term #21 AWG 1-1/2" lg; RCA part/dwg P-722318-56; spec JAN-R-11	Osc Grid
R-121		Same as R-105	1st Detector Cathode Bias
R-122	N16-R-50418-231	RESISTOR, FIXED: comp; JAN type #RC30BF333K; 33,000 ohms p/m 10%; 1 w; characteristic F; 0.750" max lg x 0.280" max diam; ins, color coded; 2 axial wire lead term; RCA part/dwg P-722333-80; spec JAN-R-11	1st RF Screen
R-123		Same as R-122	2nd RF Screen
R-124	N16-R-68367-7246	RESISTOR, FIXED: NT #63678-221; WW; 220 ohms p/m 10%; 1/2 w at 40° C max continuous oper temp; 15/64" diam x 21/32" lg; bakelite coated, humidity, and fungus resistant; 2 axial wire lead term; RMA color coded; IRC type #BW-1/2, RCA part/dwg K-867970-354	1st RF Cathode (Part of E-114)
R-125		Same as R-124	2nd RF Cathode (Part of E-118)
R-126		Same as R-115	Osc Screen
R-127	N16-R-49967-811	RESISTOR, FIXED: comp; JAN type #RC20BF152K; 1500 ohms p/m 10%; 1/2 w; characteristic F; 0.406" lg x 0.175" diam; ins, RSW, and humidity; 2 axial wire leads #21 AWG 1-1/2" lg; RCA part/dwg P-722318-64; spec JAN-R-11	Osc Plate

R-128	3RC20BF333K N16-R-50417-811	RESISTOR, FIXED: comp; JAN type #RC20BF333K; 33,000 ohms p/m 10%; 1/2 w; characteristic F; 0.406" lg x 0.175" diam; ins, RSW, and humidity; 2 axial wire leads #21 AWG 1-1/2" lg; RCA part/dwg P-722318-80; spec JAN-R-11	Gain Control Bleeder
R-129		Same as R-102	Osc Cathode
R-201		Same as R-124	1st RF Cathode (Part of E-213)
R-202		Same as R-124	2nd RF Cathode (Part of E-218)
R-203		Same as R-105	1st Detector Cathode Bias
R-204	N16-R-50165-811	RESISTOR, FIXED: comp; JAN type #RC20BF562K; 5600 ohms p/m 10%; 1/2 w; characteristic F; 0.406" lg x 0.175" diam o/a; ins, RSW, and humidity; 2 axial wire leads; RCA part/dwg P-722318-71; spec JAN-R-11	RF Plate Shunt
R-205		Same as R-105	1st RF Plate Filter
R-206		Same as R-105	2nd RF Plate Filter
R-207		Same as R-105	Osc Plate Filter
R-208		Same as R-108	Osc Grid Leak
R-209		Same as R-109	1st RF Grid Filter
R-210		Same as R-109	2nd RF Grid Filter
R-211		Same as R-128	RF Sensitivity Control Plate
R-212		Same as R-109	1st Detector Screen
R-213	N16-R-50651-811	RESISTOR, FIXED: comp; JAN type #RC20BF124K; 120,000 ohms p/m 10%; 1/2 w; characteristic F; 0.406" lg x 0.175" diam; ins, RSW, and humidity; 2 axial wire leads #21 AWG 1-1/2" lg; RCA part/dwg P-722318-87; spec JAN-R-11	1st RF Screen
R-214		Same as R-213	2nd RF Screen
R-215	N16-R-50282-811	RESISTOR, FIXED: comp; JAN type #RC20BF103K; 10,000 ohms p/m 10%; 1/2 w; characteristic F; 0.406" lg x 0.175" diam; ins, RSW, and humidity; 2 axial wire leads #21 AWG 1-1/2" lg; RCA part/dwg P-722318-74; spec JAN-R-11	Osc Screen
R-216	N16-R-50975-0811	RESISTOR, FIXED: comp; JAN type #RC20BF105K; 1 meg p/m 10%; 1/2 w; characteristic F; 0.406" x 0.175" diam; ins, moisture resistant; 2 axial wire lead term; color coded; RCA part/dwg P-722318-98; spec JAN-R-11	1st RF Grid Leak
R-217		Same as R-216	2nd RF Grid Leak
R-218		Same as R-216	1st Detector Grid Leak
R-219		Same as R-116	Osc Heater Shunt Potentiometer
R-220		Not Used	
R-221		Same as R-118	Osc Heater Shunt
R-222		Same as R-118	Osc Heater Shunt
R-301	N16-R-68315-6186	RESISTOR, FIXED: NT #63678-100; WW; 10 ohms p/m 10%; 1/2 w at 40° C ambient temp rise 0 to 50° C; 21/32" lg x 15/64" diam p/m 1/32" tol; bakelite ins, waxed, humidity, and fungus resistant; 2 axial wire lead term; RMA color coded, temp coef 0.017% deg C; IRC type #BW-1/2; RCA part/dwg K-867970-338	1st IF Medium Damping
R-302		Same as R-301	2nd IF Medium Damping
R-303		Same as R-301	3rd IF Medium Damping

TABLE 8-4. TABLE OF REPLACEABLE PARTS FOR MODELS RBB-5/6 AND RBC-5/6 RADIO RECEIVING EQUIPMENT

REF. SYMBOL	STOCK NUMBERS SIGNAL CORPS AIR FORCE	NAME OF PART AND DESCRIPTION	LOCATING FUNCTION
R-304		Same as R-301	Diode Medium Damping
R-305	N16-R-68325-6006	RESISTOR, FIXED: NT #63678-220; WW; 22 ohms p/m 10%; 1/2 w at 40° C max continuous oper temp; 15/64" diam x 21/32" lg; bakelite coated, humidity, and fungus resistant; 2 axial wire lead term; RMA color coded; IRC type #BW-1/2; RCA part/dwg K-867970-342	1st IF Broad Damping
R-306		Same as R-305	2nd IF Broad Damping
R-307		Same as R-305	3rd IF Broad Damping
R-308		Same as R-305	Diode Broad Damping
R-309	N16-R-49841-811	RESISTOR, FIXED: comp; JAN type #RC20BF681K; 680 ohms p/m 10%; 1/2 w; characteristic F; 0.468" max lg x 0.249" max diam; ins, RSW, and humidity; 2 axial wire lead term #21 AWG 1-1/2" lg; RCA part/dwg P-722318-60; spec JAN-R-11	1st IF Cathode Bias
R-310	N16-R-49769-811	RESISTOR, FIXED: comp; JAN type #RC20BF471K; 470 ohms p/m 10%; 1/2 w; characteristic F; 0.406" lg x 0.175" diam; ins, moisture resistant; 2 axial wire lead term; color coded; RCA part/dwg P-722318-58; spec JAN-R-11	2nd IF Cathode Bias
R-311		Same as R-310	3rd IF Cathode Bias
R-312		Same as R-309	Output Cathode Bias
R-313		Same as R-104	2nd AF Cathode Bias
R-314		Same as R-104	1st AF Cathode Bias
R-315	N16-R-50093-811	RESISTOR, FIXED: comp; JAN type #RC20BF392K; 3900 ohms p/m 10%; 1/2 w; characteristic F; 0.468" max lg x 0.249" max diam; ins, RSW, and humidity; 2 axial wire lead term #21 AWG 1-1/2" lg RCA part/dwg P-722318-69; spec JAN-R-11	Output Limiter Amplr Cathode Bias
R-316		Same as R-105	1st Detector Plate
R-317		Same as R-216	AVC Filter AF
R-318		Same as R-105	2nd IF Plate
R-319		Same as R-105	3rd IF Plate
R-320	N16-R-50444-811	RESISTOR, FIXED: comp; JAN type #RC20BF393K; 39,000 ohms p/m 10%; 1/2 w; characteristic F; 0.406" lg x 0.175" diam; ins, RSW, and humidity; 2 axial wire leads #21 AWG 1-1/2" lg; RCA part/dwg P-722318-81; spec JAN-R-11	1st and 2nd IF Screen Dropping
R-321	N16-R-87440-6910	RESISTOR, VARIABLE: NT #631094-15; comp; 3000 ohms p/m 15%; 1/2 w; 3 solder lug term; encl metal case 1-1/4" diam x 9/16" d; rounded SS shaft 1/4" diam x 3/4" lg from mtg surface; linear taper; ins cont arm; normal torque; bushing mtg 3/8"-32 x 5/16" lg, non-turn device located on 17/32" rad at 9 o'clock; marked w/ Navy type #, salt water spray resistant; IRC type CSM-sealed 280 deg; RCA part/dwg P-721104-1	Tuning Meter Shunt Potentiometer
R-322		Same as R-109	3rd IF Screen
R-323		Same as R-215	CW Osc Plate Supply
R-324		Same as R-215	1st AF Plate Supply

R-325	N16-R-50201-811	RESISTOR, FIXED: comp; JAN type #RC20BF682K; 6800 ohms p/m 10%; 1/2 w; characteristic F; 0.406" lg x 0.175" diam; ins, RSW, and humidity; 2 axial wire lead term #21 AWG 1-1/2" lg; RCA part/dwg P-722318-72; spec JAN-R-11	Voltage Divider
R-326		Same as R-215	2nd IF Screen
R-327	N16-R-50283-551	RESISTOR, FIXED: comp; JAN type #RC40BF103K; 10,000 ohms p/m 10%; 2 w; characteristic F; 1.41" max lg x 0.405" max diam; ins; 2 axial wire lead term; color coded; RCA part/dwg P-722353-74	Voltage Divider
R-328	N16-R-50372-811	RESISTOR, FIXED: comp; JAN type #RC20BF223K; 22,000 ohms p/m 10%; 1/2 w; characteristic F; 0.406" lg x 0.175" diam; ins, RSW, and humidity; 2 axial wire leads #21 AWG 1-1/2" lg; RCA part/dwg P-722318-78; spec JAN-R-11	Voltage Divider
R-329	N16-R-49930-431	RESISTOR, FIXED: comp; JAN type #RC20BF112J; 1100 ohms p/m 5%; 1/2 w; characteristic F; 0.406" lg x 0.175" diam; ins, RSW, and humidity; 2 axial wire lead term #21 AWG 1-1/2" lg; RCA part/dwg P-722318-160; spec JAN-R-11	Output Meter Divider
R-330	N16-R-50083-431	RESISTOR, FIXED: comp; JAN type #RC20BF362J; 3600 ohms p/m 5%; 1/2 w; characteristic F; 0.406" lg x 0.175" diam; ins, RSW, and humidity; 2 axial wire lead term #21 AWG 1-1/2" lg; RCA part/dwg P-722318-172; spec JAN-R-11	Output Meter Divider
R-331		Same as R-128	Output Limiter Voltage Divider
R-332	N16-R-50552-811	RESISTOR, FIXED: comp; JAN type #RC20BF683K; 68,000 ohms p/m 10%; 1/2 w; characteristic F; 0.406" lg x 0.175" diam; ins, RSW, and humidity; 2 axial wire leads #21 AWG 1-1/2" lg; RCA part/dwg P-722318-84; spec JAN-R-11	CW Osc Grid
R-333	N16-R-50308-431	RESISTOR, FIXED: comp; JAN type #RC20BF123J; 12,000 ohms p/m 5%; 1/2 w; characteristic F; 0.406" lg x 0.175" diam; ins, RSW, and humidity; 2 axial wire lead term #21 AWG 1-1/2" lg; RCA part/dwg P-722318-185; spec JAN-R-11	Output Meter Divider
R-334		Same as R-328	Silencer Voltage Divider
R-335	N16-R-50714-811	RESISTOR, FIXED: comp; JAN type #RC20BF224K; 220,000 ohms p/m 10%; 1/2 w; characteristic F; 0.406" lg x 0.175" diam; ins, RSW, and humidity; 2 axial wire leads #21 AWG 1-1/2" lg; RCA part/dwg P-722318-90; spec JAN-R-11	1st IF Grid
R-336		Same as R-109	2nd IF Grid
R-337	N16-R-51020-811	RESISTOR, FIXED: comp; JAN type #RC20BF155K; 1.5 meg p/m 10%; 1/2 w; characteristic F; 0.406" lg x 0.175" diam; ins, RSW, and humidity; 2 axial wire lead term #21 AWG 1-1/2" lg; RCA part/dwg P-722318-100; spec JAN-R-11	3rd IF Grid
R-338	N16-R-50696-811	RESISTOR, FIXED: comp; JAN type #RC20BF184K; 180,000 ohms p/m 10%; 1/2 w; characteristic F; 0.406" max lg x 0.175" max diam; ins, RSW, and humidity; 2 axial wire lead term #21 AWG 1-1/2" lg; RCA part/dwg P-722318-89; spec JAN-R-11	AVC Voltage Divider
R-339		Same as R-109	1st AF Plate
R-340		Same as R-216	Silencer Cathode
R-341		Same as R-216	Silencer Plate
R-342	N16-R-49804-431	RESISTOR, FIXED: comp; JAN type #RC20BF561J; 560 ohms p/m 5%; 1/2 w; characteristic F; 0.406" lg x 0.175" diam; ins, RSW, and humidity; 2 axial wire lead term #21 AWG 1-1/2" lg; RCA part/dwg P-722318-153; spec JAN-R-11	Output Meter Divider
R-343		Same as R-335	Inverse Feedback Resistor from Output to 2nd AF Plate
R-344		Same as R-335	2nd AF Plate
R-345		Same as R-216	Noise Limiter Divider
R-346	N16-R-50650-431	RESISTOR, FIXED: comp; JAN type #RC20BF124J; 120,000 ohms p/m 5%; 1/2 w; characteristic F; 0.406" lg x 0.175" diam; ins, RSW, and humidity; 2 axial wire lead term #21 AWG 1-1/2" lg; RCA part/dwg P-722318-209; spec JAN-R-11	1st RF Grid Filter
R-347	N16-R-50741-811	RESISTOR, FIXED: comp; JAN type #RC20BF274K; 270,000 ohms p/m 10%; 1/2 w; characteristic F; 0.406" lg x 0.175" diam; ins, RSW, and humidity; 2 axial wire lead term #21 AWG 1-1/2" lg; RCA part/dwg P-722318-91; spec JAN-R-11	Detector Filter

TABLE 8-4. TABLE OF REPLACEABLE PARTS FOR MODELS RBB-5/6 AND RBC-5/6 RADIO RECEIVING EQUIPMENT

REF. SYMBOL	STOCK NUMBERS SIGNAL CORPS AIR FORCE	NAME OF PART AND DESCRIPTION	LOCATING FUNCTION
R-348		Same as R-347	Detector Loading
R-349	N16-R-50822-811	RESISTOR, FIXED: comp; JAN type #RC20BF474K; 470,000 ohms p/m 10%; 1/2 w; characteristic F; 0.406" lg x 0.175" diam; ins, RSW, and humidity; 2 axial wire leads #21 AWG 1-1/2" lg; RCA part/dwg P-722318-94, spec JAN-R-11	1st AF Screen
R-350		Same as R-349	Output Limiter Amplr Plate
R-351		Same as R-349	Silencer Amplr Plate
R-352		Same as R-349	2nd AF Screen
R-353	N16-R-50398-431	RESISTOR, FIXED: comp; JAN type #RC20BF273J; 27,000 ohms p/m 5%; 1/2 w; characteristic F; 0.406" lg x 0.175" diam; ins, RSW, and humidity; 2 axial wire lead term #21 AWG 1-1/2" lg; RCA part/dwg P-722318-193; spec JAN-R-11	CW Osc Plate
R-354	N16-R-50786-811	RESISTOR, FIXED: comp; JAN type #RC20BF394K; 390,000 ohms p/m 10%; 1/2 w; characteristic F; 0.406" lg x 0.175" diam; ins, RSW, and humidity; 2 axial wire leads #21 AWG 1-1/2" lg; RCA part/dwg P-722318-93; spec JAN-R-11	AVC Filter
R-355		Same as R-349	AVC Load
R-356	N16-R-51065-811	RESISTOR, FIXED: comp; JAN type #RC20BF225K; 2.2 meg; 1/2 w; characteristic F; 0.406" max lg x 0.175" max diam less term; ins, RSW, and humidity; 2 axial wire lead term #21 AWG 1-1/2" lg; RCA part/dwg P-722318-102; spec JAN-R-11	1st AF Grid
R-357	N16-R-50930-811	RESISTOR, FIXED: comp; JAN type #RC20BF824K; 820,000 ohms p/m 10%; 1/2 w; characteristic F; 0.406" lg x 0.175" diam; ins, RSW, and humidity; 2 axial wire lead term #21 AWG 1-1/2" lg; RCA part/dwg P-722318-97; spec JAN-R-11	Noise Limiter Divider
R-358		Same as R-356	Silencer Grid
R-359		Same as R-216	Output Amplr Grid
R-360		Same as R-356	Output Limiter Amplr Screen
R-361	N16-R-92567-1312	RESISTOR, VARIABLE: NT #631092-10; WW; 5000 ohms p/m 10% ea sect; 0.015 amp max front sect, 0.020 amp max rear sect normal current rating; 3 solder lug term ea sect; encl brass cases nickel pl, 1-17/32" diam x 1-5/8" d, o/a; round metal shaft 1/4" diam x 7/8" lg from mtg surface; linear taper over 2000 ohms to 63% RH rotation and linear taper over 3000 ohms between 63% and 295 deg RH rotation front sect; linear taper over 5000 ohms to 63% RH rotation, 0 ohms 63% to 295 deg RH rotation rear sect; ins cont arms; normal torque; bushing 3/8"-32 thd x 3/8" lg, non-turn device on 17/32" rad at 9 o'clock; bushing brass nickel pl, C washer cad pl, moving parts and wnd petrolatum coated, brass term silver pl w/ hot solder dipped ends, hop off resistance 100% rotation rear sect; non-magnetic SS shaft; lower case; RCA part/dwg K-866669-1; Navy spec #RE13A492B	
R-361A		Part of R-361	Manual Gain Control Potentiometer (Front Unit)
R-361B		Part of R-361	Manual Gain Control Potentiometer (Rear Unit)
R-362	N16-R-88180-6810	RESISTOR, VARIABLE: NT #636674-L15; comp; 500,000 ohms p/m 15%; 1/2 w; 3 solder lug term; encl metal case 1-5/8" diam x 25/32" d; slotted SS shaft 1/4" diam x 5/8" lg from mtg surface; curve A taper; ins cont arm; normal torque; bushing 3/8"-32 thd x 1/4" lg, non-turn device located on 17/32" rad at 9 o'clock; scdr slotted shaft and parallel w/ arm, marked w/ NT #, salt spray resistant; IRC type CSM-sealed 280 deg; RCA part/dwg P-721104-4	Output Limiter Gain Set Control Potentiometer

R-363	N16-R-88937-8843	RESISTOR, VARIABLE: NT #631098-15; comp; 25,000 ohms p/m 15% front sect, 1 meg p/m 15% rear sect; normal cur 0.003 amp front sect, 0.2 ma rear sect; 3 solder lug term ea sect; encl metal cases 1-1/4" diam x 1-3/16" d; rounded non-magnetic SS shaft 1/4" diam x 15/16" lg from mtg surface; linear taper front sect, RCA spec S-852936 taper rear sect; ins cont arms; normal torque; bushing 3/8"-32 thd x 7/16" lg, non-turn device on 17/32" rad at 9 o'clock; salt water spray resistant; marked w/ Navy type # and mfr prefix letters; RCA part/dwg K-864364-1	
R-363A		Part of R-363	Output Level Control Potentiometer
R-363B		Part of R-363	Output Limiter Level Control Potentiometer
R-364	N16-R-88010-6610	RESISTOR, VARIABLE: NT #631142-15; comp; 100,000 ohms p/m 15%; 1/2 w; 3 solder lug term; encl metal case 1-5/8" diam x 25/32" d; slotted SS shaft 1/4" diam x 5/8" lg from mtg surface; linear taper; ins cont arm; normal torque; bushing 3/8"-32 thd x 1/4" lg, non-turn device located on 17/32" rad at 9 o'clock; scdr slot in shaft end parallel w/ arm, marked w/ Navy type #, salt water resistant; IRC type CSM-sealed 280 deg; RCA part/dwg P-721104-5	Band Pass Filter Padding Adj Potentiometer
R-365	N16-R-50335-431	RESISTOR, FIXED: comp; JAN type #RC20BF153J; 15,000 ohms p/m 5%; 1/2 w; characteristic F; 0.406" lg x 0.175" diam; ins, RSW; and humidity; 2 axial wire lead term #21 AWG 1-1/2" lg; RCA part/dwg P-722318-187; spec JAN-R-11	2nd Detector Cathode
R-366		Same as R-335	AVC Filter
R-367		Same as R-328	2nd AF Feedback
R-368	N16-R-87750-6700	RESISTOR, VARIABLE: NT #636581-L-15; comp; 25,000 ohms p/m 15%; 1/2 w; 3 solder lug term; encl metal case 1-5/8" diam x 25/32" d max dimen; slotted SS shaft 1/4" diam x 5/8" lg from mtg surface; linear taper; ins cont arm; normal torque; bushing mtg 3/8"-32 x 1/4" lg; non-turn device located on 17/32" rad at 9 o'clock, scdr slot in shaft end parallel w/ arm, marked w/ Navy type #, salt water spray resistant; IRC type CSM-280 deg; RCA part/dwg P-721104-2	Tuning Circuit Potentiometer
R-369	N16-R-88010-6810	RESISTOR, VARIABLE: NT #631096-15; comp; 100,000 ohms p/m 15%; 1/2 w; 3 solder lug term; encl metal case 1-5/8" diam x 25/32" d max dimen; round SS shaft 1/4" diam x 15/16" lg from mtg surface; linear taper; ins cont arm; normal torque; mtg bushing 3/8"-32 thd x 7/16" lg; non-turn device located on 17/32" rad at 9 o'clock, marked w/ NT #, salt water spray resistant; IRC type CSM-280 deg; RCA part/dwg P-721104-3	Silencer Control Potentiometer
R-370		Same as R-335	Silencer Screen
R-371		Same as R-216	AF AVC Filter
R-372	N16-R-50020-431	RESISTOR, FIXED: comp; JAN type #RC20BF242J; 2400 ohms p/m 5%; 1/2 w; characteristic F; 0.406" lg x 0.175" diam; ins, RSW, and humidity; 2 axial wire lead term #21 AWG 1-1/2" lg; RCA part/dwg P-722318-168; spec JAN-R-11	CW Osc Cathode
R-373		Same as R-101	CW Osc Grid
R-374		Same as R-215	CW Osc Cathode
R-501		Same as R-310	Cathode
R-502		Same as R-215	Plate Filter
R-503		Same as R-216	Grid Resistor
S-101	N17-S-62205-9901	SWITCH, ROTARY: 3 pole 4 position; silver pl nickel silver cont; ceramic body; 2-5/8" lg x 2-3/8" wd x 55/64" thk; shorting type conts; detent action; solder lug term; four 0.173" diam holes on 1-7/8" x 2-1/8" mtg/c; ceramic is wax impr, silver pl phosphor bronze cont springs, rotor cont of silver, drive shaft to fit in 0.253" square hole; RCA part/dwg M-420882-1	Ant Stage Band Selector
S-102		Same as S-101	Ant Stage Band Selector
S-103		Same as S-101	1st RF Stage Band Selector
S-104		Same as S-101	2nd RF Stage Band Selector
S-105		Same as S-101	Osc Stage Band Selector

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TABLE 8-4. TABLE OF REPLACEABLE PARTS FOR MODELS RBB-5/6 AND RBC-5/6 RADIO RECEIVING EQUIPMENT

REF. SYMBOL	STOCK NUMBERS SIGNAL CORPS AIR FORCE	NAME OF PART AND DESCRIPTION	LOCATING FUNCTION
S-106		Same as S-101	Osc Stage Band Selector
S-201		Same as S-101	Ant Coupling Band Selector
S-202		Same as S-101	Ant Circuit Band Selector
S-203		Same as S-101	1st RF Circuit Band Selector
S-204		Same as S-101	2nd RF Circuit Band Selector
S-205		Same as S-101	Osc Circuit Band Selector
S-206		Same as S-101	Osc Circuit Band Selector
S-207		Same as S-101	Link Circuit Band Selector
S-301	N17-S-70598-1802	SWITCH, TOGGLE: NT #24000; SPST; 1 amp, 250 v DC and 3 amp, 125 v DC; phenolic body w/ metal shell; 1-3/16" lg x 1/2" wd x 9/16" d; 19/32" lg bat type handle; locking action; solder lug term; single hole mtg bushing 15/32"-32 thd x 15/32" lg; black handle, black nickel pl bushing, silver pl cont, hot tin dipped term; AH and H cat #20994-ET; RCA part/dwg M-420278-1	Power ON OFF
S-302	N17-S-61497-2081	SWITCH, ROTARY: 2 circuits, 5 position; single deck; silver conts; ceramic wafer wax impr; 15/16" lg excluding shaft and mtg bushing, shaft and mtg bushing 3/4" lg, 1-7/8" wd x 1-5/8" diam; shorting type conts; spring return from first to second position; solder lug terms; mts by 3/8"-32 bushing 5/16" lg w/ 1/8" wd key 17/32" from center; shaft 1/4" diam 3/4" lg FMS flatted to 0.216" x 3/8" lg, w/ detent, brass parts nickel pl; Oak Mfg Co type #22174-QH; RCA part/dwg M-421042-1	Output Meter
S-303	N17-S-59673-8341	SWITCH, ROTARY: SPDT: single deck; silver cont; wax impr ceramic wafer; 15/16" lg x 1-7/8" wd x 1-5/8" d excluding shaft, shaft 1/4" diam x 13/16" lg flatted; shorting type cont; solder lug term; mtg bushing 3/8"-32 thd x 13/32" lg; w/ detent, all brass parts nickel pl; Oak Mfg type HC; RCA part/dwg M-421955-1	Noise Limiter GN OFF
S-304	N17-S-67040-3865	SWITCH, ROTARY: 2 pole, 5 position each deck; 7 decks; silver conts; wax impr ceramic wafer; 4-19/32" lg x 1-7/8" wd x 1-5/8" d excluding shaft, shaft 1/4" diam x 13/16" lg flatted; shorting type conts; solder lug term: 3/8"-32 thd x 3/8" lg mtg bushing; w/ detent, all brass parts nickel pl; Oak Mfg Co type HC; RCA part/dwg M-421956-1	Reception Transfer
S-305	N17-S-74049-5902	SWITCH, TOGGLE: NT #24003; DPDT; 1 amp, 250 v DC and 3 amp, 125 v DC; phenolic body w/ metal shell; 1-9/16" lg x 21/32" wd x 29/32" d; 16/32" lg bat type handle; locking action; solder lug term; single hole mtg bushing 15/32"-32 thd x 15/32" lg; black handle, black nickel pl bushing, silver pl cont; hot tin dipped term; Arrow, Hart and Hegeman cat #20905-EP; RCA part/dwg M-420278-4	Audio Selectivity
S-306	N17-S-91897-8782	SWITCH SECTION, ROTARY: wax impr ceramic; #1 rear section, silver cont, 8 solder lug term, 2 pole 3 position; flat, oval shape; 1-7/8" lg x 1-5/8" wd x 7/32" thk; two 0.047" mtg holes for #5 screw on 1-9/16" mtg/c; Oak Mfg type HC; RCA part/dwg M-421722-1	Radio Selectivity
S-307		Same as S-306	Radio Selectivity
S-308	N17-S-91671-1051	SWITCH SECTION, ROTARY: wax impr ceramic; front section, silver cont, 9 solder lug term, 2 pole 3 position; flat oval shape; 1-7/8" lg x 1-5/8" wd x 7/32" thk; 2 mtg holes for #5 screw on 1-9/16" mtg/c; Oak Mfg Co type HC; RCA part/dwg M-421722-4	Radio Selectivity
S-501		Same as S-301	Filament
T-101	N17-T-82437-8733	TRANSFORMER, RF: ant; four wnd, 1 single layer wnd, 1 universal pie wnd, 2 universal wnd of 3 pies ea; unshielded; 5-13/16" lg x 1-3/4" wd x 1-5/16" thk o/a; approx 4-1/2" lg excl term; 2 ceramic (glass bonded, mica) form joined by ceramic insert, air core; forms 1/2" OD x 2-21/64" lg ea; 2 adj powdered iron core slugs; scdr adj ctr ea end; two 0.154" dia mtg holes ea end are in line on 1.312" mtg/c; 6 solder lug term in bases at ea end; wax impr; RCA part/dwg P-720559-501	Ant Transf Band No. 1

CHANGE 1

T-102	N17-T-82437-6031	TRANSFORMER, RF: ant; 4 wnd, 1 single layer wnd, 1 universal pie wnd, 2 universal wnd of 3 pies ea; unshielded; 5-13/16" lg x 1-3/4" wd x 1-5/16" thk o/a; approx 4-1/2" lg excl term; 2 ceramic forms joined by ceramic insert, air core; forms 1/2" OD x 2-21/64" lg ea; 2 adj powdered iron core slugs; scdr adj ctr ea end; 2 mtg holes 0.154" diam on 1.312" mtg/c in form bases ea end, mtg holes ea end are in line; 6 solder lug term in bases at ea end; wax impr; RCA part/dwg P-720559-502	Ant Transf Band No. 2
T-103	N17-T-82437-6033	TRANSFORMER, RF: ant; 4 wnd, 1 single layer wnd, 1 universal pie wnd, 2 progressive wnd; unshielded; 5-13/16" lg x 1-3/4" wd x 1-5/16" thk o/a; approx 4-1/2" lg excl term; 2 polystyrene forms joined w/ ceramic insert, air cores; 2 adj powdered iron core slugs; scdr adj ctr ea end; 2 mtg holes 0.154" diam on 1.312" mtg/c in form base ea end, mtd holes ea end are in line; 6 solder lug term in bases at ea end; wax impr; RCA part/dwg P-720559-503	Ant Transf Band No. 3
T-104	N17-T-82437-8735	TRANSFORMER, RF: ant; 4 wnd, 3 single layer wnd, 1 universal pie wnd; unshielded; 5-13/16" lg x 1-3/4" wd x 1-5/16" thk o/a; approx 4-1/2" lg excl term; 2 ceramic bakelite forms joined w/ ceramic insert, air core; forms 1/2" OD x 2-21/64" lg ea; two adj powdered iron core slugs; scdr adj ctr ea end; 2 mtg holes 0.154" diam on 1.312" mtg/c in form bases at ea end, mtg holes ea end are in line; 6 solder lug term in bases at ea end; wax impr; RCA part/dwg P-720559-504	Ant Transf Band No. 4
T-105	N17-T-82442-1179	COIL, RF: NT #471032; RF transf; two wnd, one single layer wnd, other 3 pie universal wnd; unshielded; 4" lg x 1-3/4" wd x 1.312" thk o/a; polystyrene bakelite form, air core; form 1/2" OD x 2-27/32" lg approx; adj powdered iron core slug; scdr adj ctr end opposite mtg end; 2 mtg holes 0.154" diam on 1.312" mtg/c in form base; 6 solder lug term in base; wax impr; RCA part/dwg M-420939-501	1st RF Transf Band No. 1
T-106	N17-T-82442-1177	COIL, RF; NT #471031; RF transf; two wnd, one single layer wnd, other 3 pie universal wnd; unshielded; 4" lg x 1-3/4" wd x 1.312" thk o/a; polystyrene bakelite form, air core; form 1/2" OD x 2-27/32" lg approx; adj powdered iron core slug; scdr adj ctr end opposite mtg end, 2 mtg holes 0.154" diam on 1.312" mtg/c in form base; 6 solder lug term in base; wax impr; RCA part/dwg M-420939-502	1st RF Transf Band No. 2
T-107	N17-T-82442-1175	COIL, RF: NT #471030; RF transf; two wnds, one single layer wnd, other progressive wnd; unshielded; 4" lg x 1-3/4" wd x 1.312" thk o/a; polystyrene bakelite form, air core; form 1/2" OD x 2-27/32" lg approx; adj powdered iron core slug; scdr adj ctr end opposite mtg end; 2 mtg holes 0.154" diam on 1.312" mtg/c in form base; 6 solder lug term in base; wax impr; RCA part/dwg M-420939-503	1st RF Transf Band No. 3
T-108	N17-T-82442-1173	COIL, RF: NT #471029; RF transf; two wnds, single layer wnd; unshielded; 4" lg x 1-3/4" wd x 1.312" thk o/a; polystyrene bakelite form, air core; form 1/2" OD x 2-27/32" lg approx; adj powdered iron core slug; scdr adj ctr end opposite mtg end; 2 mtg holes 0.154" diam on 1.312" mtg/c in form base; 6 solder lug term in base; wax impr; RCA part/dwg M-420939-504	1st RF Transf Band No. 4
T-109		Same as T-105	2nd RF Transf Band No. 1
T-110		Same as T-106	2nd RF Transf Band No. 2
T-111		Same as T-107	2nd RF Transf Band No. 3
T-112		Same as T-108	2nd RF Transf Band No. 4
T-113	N16-C-76678-6516	COIL, RF: NT #472129; osc; 1 wnd, 1 universal wnd, 1 universal wnd in 3 pies; unshielded; 267 uh; 123 turns; 4" lg approx x 1-3/4" wd approx x 1-5/16" thk approx o/a; polystyrene form, air core; form 5/8" OD x 2-27/32" lg; adj powdered iron core slug; scdr adj c end opposite mtg end; 2 mtg holes 0.154" diam on 1.312" mtg/c in form base; 6 solder lug term in base; wax impr, w/ one 260 mmf mica capacitor, tapped at 10 and 70 turns; RCA part/dwg M-420951-501	Osc Transf Band No. 1
T-114	N16-C-76503-4127	COIL, RF: NT #472130; osc; 1 wnd, 4 pie universal; unshielded; 82 turns; 4" lg approx x 1-3/4" wd approx x 1-5/16" thk approx o/a; polystyrene form, air core; form 5/8" OD x 2-27/32" lg; adj powdered iron core slug; scdr adj c end opposite mtg end; 2 mtg holes 0.154" diam on 1.312" mtg/c in form base; 6 solder lug term in base; wax impr; w/ one 415 mmf mica capacitor, tapped at 6 and 48 turns; RCA part/dwg M-420951-502	Osc Transf Band No. 2
T-115	N16-C-76503-1475	COIL, RF: NT #472131, osc; 2 wnd, 1 universal wnd, 1 universal wnd in 3 pies; unshielded; 4" lg approx x 1-3/4" wd approx x 1-5/16" thk approx o/a; polystyrene form, air core; form 5/8" OD x 2-27/32" lg; adj powdered iron core slug; scdr adj ctr end opposite mtg end; 2 mtg holes 0.154" diam on 1.312" mtg/c in form base; 6 solder lug term in base; wax impr, w/ one 630 mmf mica capacitor; RCA part/dwg M-420951-503	Osc Transf Band No. 3
T-116	N16-C-76634-3481	COIL, RF: NT #472132, osc; single layer wnd; unshielded; 4" lg approx x 1-3/4" wd approx x 1-5/16" thk approx o/a; polystyrene form, air core; form 1/2" OD x 2-27/32" lg; adj powdered iron core slug; scdr adj ctr end opposite mtg end; 2 mtg holes 0.154" diam on 1.312" mtg/c in form base; 6 solder lug term in base; wax impr, w/ one 980 mmf capacitor; RCA part/dwg M-420951-504	Osc Transf Band No. 4

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TABLE 8-4. TABLE OF REPLACEABLE PARTS FOR MODELS RBB-5/6 AND RBC-5/6 RADIO RECEIVING EQUIPMENT

REF. SYMBOL	STOCK NUMBERS SIGNAL CORPS AIR FORCE	NAME OF PART AND DESCRIPTION	LOCATING FUNCTION
T-201	N17-T-82189-3155	TRANSFORMER, RF: ant; 4 wnd, 4 single layer wnd; unshielded; 5-13/16" lg x 1-3/4" wd x 1-5/16" thk o/a; approx 4-1/2" lg excl term; 2 ceramic forms joined w/ ceramic insert, air core; forms 5/8" OD x 2-21/64" lg ea; 2 adj powdered iron core slugs; scdr adj ctr ea end; 2 mtg holes 0.154 " diam on 1.312" mtg/c in form bases ea end, mtg holes ea end are in line; 6 solder lug term in bases at ea end; wax impr; RCA part/dwg P-720560-501	Ant Transf Band No. 1
T-202	N17-T-82196-5353	TRANSFORMER, RF: ant; 4 wnd, 4 single layer wnd; unshielded; 5-13/16" lg x 1-3/4" wd x 1-5/16" thk o/a; approx 4-1/2" lg excl term; 2 ceramic forms joined w/ ceramic insert, air core; forms 1/2" OD x 2-21/64" lg ea; 2 adj powdered iron core slugs; scdr adj ctr ea end; 2 mtg holes 0.154" diam in 1.312" mtg/c in form bases ea end, mtg holes ea end are in line; 6 solder lug term in bases at ea end; wax impr; RCA part/dwg P-720560-502	Ant Transf Band No. 2
T-203	N17-T-82436-6939	TRANSFORMER, RF: ant; 4 wnd, 2 single layer wnd, 2 single layer space wnd; unshielded; 5-13/16" lg x 1-3/4" wd x 1-5/16" thk o/a; approx 4-1/2" lg excl term; 2 ceramic forms joined w/ ceramic insert; air cores; forms 5/8" OD x 2-21/64" lg w/ thd portion 1-21/64" lg x 12 thd per inch; 2 adj pwd iron core slugs; scdr adj ctr ea end; 2 mtg holes 0.154" diam on 1.312" mtg/c in form bases ea end, mtg holes ea end are in line; 6 solder lug term in bases at ea end; wax impr; RCA part/dwg P-720560-503	Ant Transf Band No. 3
T-204	N17-T-82209-1878	TRANSFORMER, RF: ant; 4 wnd, 2 single layer wnd, 2 single layer space wnd; unshielded; 5-13/16" lg x 1-3/4" wd x 1-5/16" thk o/a; approx 4-1/2" lg excl term; two ceramic forms joined w/ ceramic insert, air core; forms 5/8" OD x 2-21/64" lg w/ thd portion 1-3/64" lg x 12 thd per inch; 2 adj pwd iron core slugs; scdr adj ctr ea end; 2 mtg holes 0.154" diam on 1.312" mtg/c in form bases ea end, mtg holes ea end are in line; 6 solder lug term in bases ea end; wax impr; RCA part/dwg P-720560-504	Ant Transf Band No. 4
T-205	N17-T-82189-1853	TRANSFORMER, RF: NT #47988; two wnd, one single layer wnd, one universal wnd; unshielded; 4-1/64" lg x 1-3/4" wd x 1-5/16" thk o/a; polystyrene bakelite form, air core; form 5/8" OD x 2-27/32" lg; adj powdered iron core slug; scdr adj ctr end opposite mtg end; 2 mtg holes 0.154" diam on 1.312" mtg/c in form base; 6 solder lug term in base; wax impr; RCA part/dwg M-420940-501	1st RF Transf Band No. 1
T-206	N17-T-82196-5311	TRANSFORMER, RF: NT #47989; two wnd, one single layer wnd, one progressive wnd; unshielded; 3-53/64" lg x 1-3/4" wd x 1.312" thk o/a; polystyrene bakelite form, air core; form 1/2" OD x 2-27/32" lg approx; adj powdered iron core slug; scdr adj ctr end opposite mtg end; 2 mtg holes 0.154" diam on 1.312" mtg/c in form base; 6 solder lug term in base; wax impr; RCA part/dwg M-420940-502	1st RF Transf Band No. 2
T-207	N17-T-82207-3426	TRANSFORMER, RF: NT #47990; two wnd, one single layer space wnd, one progressive wnd; unshielded; 3-61/64" lg x 1-3/4" wd x 1-5/16" thk o/a; polystyrene bakelite form, air core; form 1/2" OD x 2-27/32" lg approx, w/ thd wnd spaced from base 1-17/32" x 16 thd per inch; adj powdered iron core slug; scdr adj ctr end opposite mtg end; 2 mtg holes 0.154" diam on 1.312" mtg/c in form base; 6 solder lug term in base; wax impr; RCA part/dwg M-420940-503	1st RF Transf Band No. 3
T-208	N17-T-82209-1719	TRANSFORMER, RF: NT #47991; two wnd one single layer wnd, one single layer spaced wnd; unshielded; 3-61/64" lg x 1-3/4" wd x 1-5/16" thk o/a; polystyrene bakelite form, air core; form 5/8" OD x 2-27/32" lg approx w/ thd wnd spaced from base 1-17/32"-8 thd per inch; adj powdered iron core slug; scdr adj ctr end opposite mtg end; 2 mtg holes 0.154" diam on 1.312" mtg/c in form base; 6 solder lug term in base; wax impr; RCA part/dwg M-420940-504	1st RF Transf Band No. 4
T-209		Same as T-205	2nd RF Transf Band No. 1
T-210		Same as T-206	2nd RF Transf Band No. 2
T-211		Same as T-207	2nd RF Transf Band No. 3
T-212	N17-T-82209-1721	TRANSFORMER, RF: NT #471024; two wnd, one single layer wnd, one single layer space wnd; unshielded; 3-61/64" lg x 1-3/4" wd x 1-5/16" thk o/a; polystyrene bakelite form, air core; form 5/8" OD x 2-27/32" lg approx w/ thd wnd spaced from base 1-17/32" x 8 thd per inch, adj powdered iron core slug; scdr adj ctr end opposite mtg end; 2 mtg holes 0.154" diam on 1.312" mtg/c in form base; 6 solder lug term in base; wax impr; RCA part/dwg M-420940-505	2nd RF Transf Band No. 4

T-213	N16-C-76607-5661	COIL, RF: NT #472133; osc; single layer wnd; unshielded; 3-33/64" lg x 1-3/4" wd x 1-5/16" thk o/a; polystyrene form, air core; form 1/2" OD x 2-27/32" lg; adj powdered iron core slug; scdr adj ctr end opposite mtg end; 2 mtg holes 0.154" diam on 1.312" mtg/c in form base; 6 solder lug term in base; wax impr, w/ one 2000 mmf mica capacitor; RCA part/dwg M-420957-501	Osc Transf Band No. 1
T-214	N16-C-76565-8135	COIL, RF: NT #472134; osc; single layer wnd; unshielded; 3-33/64" lg x 1-3/4" wd x 1-5/16" thk o/a; polystyrene form, air core; form 1/2" OD x 2-27/32" lg; adj powdered iron core slug; scdr adj ctr end opposite mtg end; 2 mtg holes 0.154" diam on 1.312" mtg/c in form base; 6 solder lug term in base; wax impr, w/ one 2700 mmf mica capacitor; RCA part/dwg M-420957-502	Osc Transf Band No. 2
T-215	N16-C-76532-3585	COIL, RF: NT #472135, osc; single layer wnd; unshielded; 3-33/64" lg x 1-3/4" wd x 1-5/16" thk o/a; polystyrene form, air core; form 1/2" OD x 2-27/32" lg; adj powdered iron core slug; scdr adj ctr end opposite mtg end; 2 mtg holes 0.154" diam on 1.312" mtg/c in form base; 6 solder lug term in base; wax impr, w/ one 3000 mmf mica capacitor; RCA part/dwg M-420957-503	Osc Transf Band No. 3
T-216	N16-C-76520-6390	COIL, RF: NT #472136; osc; single layer wnd; unshielded; 3-33/64" lg x 1-3/4" wd x 1-1/2" thk o/a; polystyrene form, air core; form 5/8" OD x 2-27/32" lg; adj powdered iron core slug; scdr adj ctr end opposite mtg end; 2 mtg holes 0.154" diam on 1.312" mtg/c in form base; 6 solder lug term in base; wax impr, w/ one 2000 mmf mica capacitor; RCA part/dwg M-420957-504	Osc Transf Band No. 4
T-301	N17-T-66807-1001	TRANSFORMER, AF: NT #30789; plate coupling type; pri 5000 ohms impedance secd #1 - 5000 ohms impedance, secd #2 and #3 - 30-600 ohms impedance, 1500 v RMS test; upright HS steel case, lam iron core; 2-13/16" sq x 3-1/4" h; turns ratio of pri to secd #1 8:1, pri to secd #2 and #3 together 25.3: 1; freq response from ±1 db at 300 cycle to ±1 db at 4000 cycle; #1 electrostatic shield between secd #1 and pri, #2 electrostatic shield between pri and secd #2 and #3; 8 solder lug term on bottom; 4 mtg holes 0.180" diam on 2-7/16" mtg/c; oil impr, potted, output level wnd; RCA part/dwg K-901010-501	AF Output
T-302	N17-T-67570-2327	TRANSFORMER, IF: NT #47978; 400 kc peak freq; interstage, 1st IF; shielded; 4" lg approx x 1-3/4" wd approx x 1-5/16" thk approx less mtg studs and term; 2 powdered iron cores; tuned pri and tuned secd; adj iron core scdr tuning; 2 mtg studs on 1.312" mtg/c; 6 solder lug type term; wax impr, mtg studs #6-32 thd x 15/16" lg, can stamped RCA part/dwg #720561-504, C-310, C-311, R-301, R-305, contains two capacitors 500 mmf p/m 5%, one 10-ohm resistor, one 22-ohm resistor; RCA part/dwg P-720561-504	1st IF
T-303	N17-T-67570-2327	TRANSFORMER, IF: NT #47978; 400 kc peak freq; interstage, 2nd IF; shielded; 1-3/4" lg x 1-3/8" wd x 4" h less mtg studs and term; 2 powdered iron cores; tuned secd; adj iron core scdr tuning; 2 mtd studs on 1.312" mtg/c; 6 solder lug term; wax impr mtg studs #6-32 thd x 15/32" lg, shield can stamped RCA part/dwg 720561-505, C-312, C-313, R-302, R-306; contains two capacitors 500 mmf p/m 5%; one resistor 10 ohms, one resistor 22 ohms; RCA part/dwg P-720561-505	2nd IF
T-304	N17-T-67570-2327	TRANSFORMER, IF: NT #47978; 400 kc peak freq; interstage, 3rd IF; shielded; 4.469" lg x 1.410" sq less mtg studs and term; 2 powdered iron cores; tuned pri and secd; adj iron core scdr tuning; 2 mtg studs on 1.312" mtg/c; 6 solder lug term; wax impr, mtg studs #6-32 thd x 15/32" lg, shield can stamped RCA part dwg #720561-506, C-314, C-315, R-303, R-307, contains two capacitors 500 mmf p/m 5%; one resistor 10 ohms, one resistor 22 ohms; RCA part/dwg P-720561-506	3rd IF
T-305	N17-T-67569-9453	TRANSFORMER, IF: NT #47982; 400 kc peak freq; output; shielded; 4.649" h x 1.410" sq o/a; powdered iron core slugs; double tuned; adj cores; two #6-32 mtg studs on 1.32" mtg/c; 6 solder lug term, 2 wire lead term; wax impr incl one 10-ohm and one 22-ohm resistor, two 500 mmf fixed mica capacitors; RCA part/dwg P-720561-503	Output Coupling to 2nd Detector
T-306	N16-O-66002-6751	OSCILLATOR SUB-ASSEMBLY: NT #47983, 400 kc peak freq; CW osc; shielded; 3-1/16" approx x 1-3/4" approx wd x 1-5/16" approx thk less mtg studs and term; polystyrene coil form; 1 powdered iron core secd tuned; scdr tuning; 2 brass mtg studs #6-32 thd 15/32" lg x 1.312" mtg/c; 4 solder lug term; wax impr, can stamped RCA part/dwg P-720561-502, C-303, C-305, C-318, R-332, R-353, contains one capacitor 50 mmf p/m 0.005%, one capacitor 100 mmf, one capacitor 500 mmf p/m 2%, one resistor 68,000 ohms p/m 10%, one resistor 27,000 ohms p/m 5%; RCA part/dwg P-720561-502	CW Osc
V-101	N16-T-56670	TUBE, ELECTRON: JAN type 6SK7; triple grid, super control RF or IF amplr	1st RF
V-102		Same as V-101	2nd RF
V-103	N16-T-56127	TUBE, ELECTRON: JAN type 6AB7; television amplr pent	Osc
V-104		Same as V-103	1st Detector
V-105	N17-L-6811	TUBE, ELECTRON: JAN type 991; voltage regulator	Voltage Regulator

TABLE 8-4. TABLE OF REPLACEABLE PARTS FOR MODELS RBB-5/6 AND RBC-5/6 RADIO RECEIVING EQUIPMENT

REF. SYMBOL	STOCK NUMBERS SIGNAL CORPS AIR FORCE	NAME OF PART AND DESCRIPTION	LOCATING FUNCTION
V-106	N16-T-56092	TUBE, BALLAST: for 6.3 v tube; glass; non-applied v of 18 v for 6.3 v at 0.60 amp; st-12 bulb, 4-3/16" h o/a; 4-prong base; Amperite Corp #6-8B; RCA part/dwg K-844958-1	Osc Heater Ballast
V-201		Same as V-103	1st RF
V-202		Same as V-101	2nd RF
V-203		Same as V-103	Osc
V-204		Not Used	
V-205		Same as V-105	Voltage Regulator
V-206		Same as V-106	Osc Heater Ballast
V-301		Same as V-101	1st IF
V-302		Same as V-101	2nd IF
V-303		Same as V-101	3rd IF
V-304		Same as V-103	CW Osc
V-305	N16-T-56346	TUBE, ELECTRON: JAN type 6H6; twin diode	Detector AVC
V-306		Same as V-305	Noise Limiter Output Limiter
V-307		Same as V-101	1st AF
V-308		Same as V-101	Output Limiter Amplr Silencer Amplr
V-309		Same as V-305	Output Limiter Silencer
V-310		Same as V-103	2nd AF
V-311	N16-T-56410	TUBE, ELECTRON: JAN type 6K6GT; pent power amplr	Output
V-501		Same as V-103	Cathode Follower
W-101	N16-T-25301-1239	TRANSMISSION LINE SECTION: coax; 3/8" OD of tube, 5/16" ID copper tubing cad pl; 11-1/4" lg excluding terminations; 12-33/64" lg o/a; one end terminated w/ ring type term RCA part/dwg K-818337-14 other end terminated w/ 2" lead extension of ctr cond; line bent on 2" rad to form 90 deg bend, one leg w/ term end 11-1/16" lg and other leg 3-3/4" lg approx; RCA part/dwg P-720489-501	Transmission Line 1st Detector to 1st IF Detector
W-201		Same as W-101	Transmission Line 1st Detector to 1st IF Detector
X-101	N16-S-63462-8201	SOCKET, TUBE: NT #49373; 8 cont med; retaining ring and saddle mtg; two #6-32 mtg holes on 1-5/8" mtg/c; round steatite ceramic body 1-1/4" diam x 27/64" h excluding term; SS saddle 2" lg x 1-3/8" wd; phosphor bronze cont silver pl w/ term ends hot tin dipped; steel retainer ring copper then nickel pl, keyway in line w/ mtg holes; Amphenol type SS-8 m; RCA part/dwg M-421395-501; Navy dwg #RE49AA313A	1st RF Tube Socket for V-101
X-101A	N17-L-51627-1909	LAMPHOLDER: miniature bayonet type; shell and clip brass nickel pl; 6-8 v, 0.25 amp; 1-7/16" lg x 7/8" wd x 1" thk incl mtg clip integral w/ base and ins from base; no switch; mtd by spring clip on bkt that is parallel to axis of socket; 2 solder lug term 90 deg apart, edges of ins washers glyptal varnished; Dial Light Co cat #704; RCA part/dwg K-866682-1	Socket for Dial Lamp I-101

X-102		Same as X-101	2nd RF Tube Socket for V-102
X-102A		Same as X-101A	Socket for Dial Lamp I-102
X-103		Same as X-101	Osc Tube Socket for V-103
X-104	N16-S-63524-6475	SOCKET, TUBE: NT #49373; 8 cont med; retainer ring, saddle mtg; two #6-32 mtg holes on 1-5/8" mtg/c; round steatite ceramic body 1-1/4" diam x 1/2" h excluding term; SS saddle 2" lg x 1-3/8" wd; phosphor bronze, silver pl cont w/ ends hot tin dipped; steel retainer ring copper then nickel pl; keyway 90 deg angle w/ mtg holes 12 o'clock (keyway rotatable) RCA part/dwg M-421395-502; Navy dwg #RE49AA313A	1st Detector Tube Socket
X-105	N17-L-51709-8664	LAMPHOLDER: intermediate bayonet type; brass base and shell, polystyrene ins; 75 w 125 v; base, 1-13/16" lg x 1-1/2" wd x 1-5/32" thk o/a; no switch; 2 holes for #6 screw, 1.187" mtg/c; 2 solder lug term 7/16" lg, base and shell nickel pl; RCA part/dwg K-837884-3	Gaseous V Limiter Tube Socket for V-105
X-106	N16-S-60841-4251	SOCKET, TUBE: NT #49368; 4 cont med; saddle mtg retainer ring; two #6-32 mtg holes on 1-5/8" mtg/c; round steatite ceramic body 1-1/4" diam x 27/64" h less term; SS saddle 2" lg x 1-3/8" wd; phosphor bronze, silver pl cont w/ ends hot tin dipped; w/ SS mtg pl and nickel pl steel retainer ring; RCA part/dwg M-421395-504; Navy dwg #RE49AA313A	Osc Heater Regulator Tube Socket for V-106
X-201		Same as X-101	1st RF Tube Socket for V-201
X-201A		Same as X-101A	Socket for Dial Lamp I-201
X-202		Same as X-101	2nd RF Tube Socket for V-202
X-202A		Same as X-101A	Socket for Dial Lamp I-202
X-203		Same as X-101	Osc Tube Socket for V-203
X-204		Same as X-104	1st Detector Tube Socket for V-204
X-205		Same as X-105	Gaseous V Limiter Tube Socket for V-205
X-206		Same as X-106	Osc Heater Regulator Tube Socket for V-206
X-301	N16-S-63524-6475	SOCKET, TUBE: NT #49373; octal med; saddle and retainer ring mtg; two #6-32 mtg holes on 1-5/8" mtg/c; round steatite ceramic body 1-1/4" diam x 27/64" h less term; SS saddle 2" lg x 1-3/8" wd; phosphor bronze silver pl cont w/ ends hot tin dipped; w/ SS mtg pl and nickel pl steel retainer ring keyway 45 deg angle with mtg holes 7 o'clock; RCA part/dwg M-421395-505; Navy dwg #RE49AA313A	1st IF Tube Socket for V-301
X-301A	N17-L-76854-3936	LIGHT, INDICATOR: w/ lens; 1/2" diam ruby smooth glass jewel lens; miniature bayonet base, T-3-1/4 or G-3-1/2 bulb; open frame; brass black nickel pl frame and bezel; 2" lg x 15/16" diam x 1-1/8" wd o/a; 11/16" diam mtg hole required, 1/4" max panel thk; horizontal mtg, replace lamp from front; thd type jewel; 2 solder lug term located on opposite sides of base of socket; Drake Mfg Type #50 ruby; RCA part/dwg K-856863-5	Socket for Dial Lamp I-301
X-302		Same as X-301	2nd IF Tube Socket for V-302
X-303		Same as X-301	3rd IF Tube Socket for V-303
X-304		Same as X-104	CW Osc Tube Socket for V-304
X-305		Same as X-301	Detector AVC Tube Socket for V-305
X-306		Same as X-301	Noise Limiter - Output Limiter Tube Socket for V-306
X-307		Same as X-301	1st AF Tube Socket for V-307
X-308		Same as X-301	Output Limiter Amplr Silencer Amplr Tube Socket for V-308
X-309		Same as X-301	Output Limiter - Silencer Tube Socket for V-309
X-310		Same as X-301	2nd AF Tube Socket for V-310

TABLE 8-4. TABLE OF REPLACEABLE PARTS FOR MODELS RBB-5/6 AND RBC-5/6 RADIO RECEIVING EQUIPMENT

REF. SYMBOL	STOCK NUMBERS SIGNAL CORPS AIR FORCE	NAME OF PART AND DESCRIPTION	LOCATING FUNCTION
X-311		Same as X-301	Output Tube Socket for V-311
X-501	N16-S-63524-6480	SOCKET, TUBE: 8 cont med; one piece saddle mtg; 2 holes 0.156" diam on 1.625" mtg/c; socket material ceramic adapter plate SS, oval shape 2" lg x 1-3/8" wd x 31/64" thk excluding term; phosphor bronze heavy silver pl and ends hot soldered dipped; unmarked; ceramic material to Navy spec RE13A317 Grade "G" with glazed top and rim, body to be wax impr, socket furnished w/ retaining ring; RCA part/dwg M-456824-501; Navy dwg RE49AA313A except for 2 holes 0.156" diam for mtg	Socket for Cathode Follower Tube
Z-301	N16-F-44300-6106	FILTER, LOW PASS: NT #53278; 400 kc peak, 500 kc cutoff; 3-15/32" lg x 1-5/16" thk less term; oper in 70 ohm impedance line; uncased; flush panel mtd w/ connector sleeve 13/16"-27 thd x 1-3/32" lg to lock nut mtg surface; 3 female cont connector insert at mtg end, and 3 solder lug term at other end; wax impr humidity resistant incl 2 fixed mica capacitors; RCA part/dwg M-421251-501	Output Filter for J-302
Z-302	*	METER FILTER, SUB-ASSEMBLY: meter filter; c/o 1 plate assem RCA part/dwg K-865457-501, 1 coil assem RCA part/dwg K-865458-501, 1 coil assem RCA part/dwg K-865458-502, 5 capacitors RCA part/dwg P-720592-6; rectangular shape; 5-1/4" lg x 1" wd x 1-15/16" h o/a; mts by two #6-32 thd elastic stop nuts on 3-5/8" mtg/c; RCA part/dwg K-865456-501	Meter Filter
Z-501	N16-F-44295-1002	FILTER, LOW PASS: low pass filter unit, coil assem; c/o 1 term board assem RCA part/dwg 8893694-501, 2 coil assem RCA part/dwg 890737-501, 1 term board assem RCA part/dwg 890727-501, 1 term board assem RCA part/dwg 421256-505, 2 capacitors JAN CM35E512J RCA part/dwg 722033-506, 1 capacitor JAN CM35E103K RCA part/dwg 722032-563, 1 bkt RCA part/dwg 890715-1, 1 cable RCA part/dwg 890722-501; will pass 400 kc receiver IF freq p/m 100 kc with little attenuation; rectangular shape; approx o/a 7-3/8" h x 1-11/32" sq; RCA part/dwg M-430372-501	Low Pass Filter for Cathode Follower
C-401		Same as C-115	Line Filter Capacitor
C-402		Same as C-115	Line Filter Capacitor
C-403		Same as C-343	
C-403A		Part of C-403	Line Filter Capacitor
C-403B		Part of C-403	Line Filter Capacitor
C-404		Same as C-343	
C-404A		Part of C-404	Line Filter Capacitor
C-404B		Part of C-404	Line Filter Capacitor
C-405	N16-C-45780-5957	CAPACITOR, FIXED: paper dielectric; JAN type #CP63B1FG104K; single sect; 100,000 mmf p/m 10%; 1000 vdcw; HS metal case, non-magnetic; 1-5/16" lg x 49/64" wd x 1-3/8" h less term; pyranol filled; 2 solder lug term 3/4" h located on top spaced 5/8" c to c; no int gnd connections; two 0.156" slots in channel bkt mtg on 1-15/16" mtg/c; characteristic F; RCA part/dwg K-984656-12; spec JAN-C-25	HV Filter
C-406	N16-C-51837-2615	CAPACITOR, FIXED: NT #48721; paper dielectric; 10 mf +10% -3%; 600 vdcw; HS metal case; 3-7/8" lg x 1-1/4" wd x 4-3/4" h less term; pyranol filled and impr; 2 stud term 1-3/16" h, located on top, spaced 2" c to c on por standoff ins; no int gnd sect; four 0.213" diam mtg holes on 13/32" x 4-3/8" mtg/c in inverted foot type mtg; GE Cat #9CE5A87; RCA part/dwg K-860217-2; Navy spec RE13A488	HV Filter
C-407		Same as C-406	AVC Filter AF Capacitor
E-401		Same as E-103	Pull Knobs on Front Panel for Removal of Chassis

E-402	N17-F-74266-9101	HOLDER, FUSE: extractor post type; 1 cartridge type, glass body 1-1/4" lg x 1/4" diam fuse 3 amp 250 v; bakelite body w/ steel cad plate and phosphor bronze conts; 2-3/8" lg x 1-13/16" wd x 55/64" thk o/a; through panel mtg w/ two 0.136" diam holes on 1-3/8" mtg/c; 2 solder lug term; one 0.700" diam body clearance hole ctr between mtg holes; scdr slotted cover plug and fuse ejecting spring; Alden Products, cat #440 FH; RCA part/dwg K-866666-1	Extractor Fuse Post for F-401, F-402 on Front Panel
E-403		Same as E-136	Contacts for Octal Sockets X-401, X-402
E-404		Same as E-103	Pull Knobs on Front Panel for Removal of Chassis
E-405	*	SUB-ASSEMBLY: mtg for resistors on term board; c/o 1 board RCA part/dwg M-420911-501, 12 term RCA part/dwg K-8888186-3, 4 term RCA part/dwg K-823061-3, 3 resistors RCA part/dwg P-722353-63; rectangular shape; 3-3/8" lg x 2-7/8" wd x 1-1/16" thk approx o/a; four 0.173" diam mtg holes on 2.875" x 2.375" mtg/c; stencil 1/8" high standard characters 110, 115, 120 on board above screw term; RCA part/dwg M-420911-501	Bleeder Resistor Term Board Top Side of Chassis Left Front
E-406	*	SHIELD ASSEMBLY, FILTER COIL: RF coil; c/o 1 shield RCA part/dwg M-420912-2; 1 ins RCA part/dwg M-421729-3; aluminum sand blast grey tinted syn; for 3 line filter capacitors; 5-1/4" lg x 4-1/4" wd x 3-3/4" h approx o/a; six 0.219" diam mtg holes w/ elastic stop nut #6-32 on 3-7/8" x 1-7/16" mtg/c; 1/8" h characters, C-404, L-402, L-404, inside shield, put on top per dwg M-420912, lam phenolic ins around lead opening 1-1/4" lg x 5/8" wd x 3/32" thk; RCA part/dwg M-421728-501	Filter Coil Shield
E-407	*	BOARD, TERMINAL: general purpose binding post strip; 3 post type term; 3/8" between ctr; lam phenolic board; 1-3/8" lg x 1-1/4" wd x 3/32" thk; two 0.173" diam mtg holes on 3/4" mtg/c; RCA part/dwg K-864125-501; spec JAN-P-13	Terminal Board TB-1 Under Side of Chassis Right Front
F-401	N17-F-16302-120	FUSE, CARTRIDGE: NT #28032-3; rated current 3 amp blowing time for 110% of load is operating life, for 135% of load is 0-1 hour, for 200% of load is 0 to 2 minutes; rated voltage 250 v; one time; glass body; ferrule term; 1/4" diam x 1-1/4" lg o/a; RCA part/dwg K-5[illegible]544-4	Line Fuse on Front Panel
F-402		Same as F-401	Line Fuse on Front Panel
J-401	N17-C-73471-2904	CONNECTOR, RECEPTACLE: NT #49126; 3 round female cont; straight type; 1-11/16" lg approx x 2-1/4" wd x 1-9/16" d o/a; 250 v DC, 440 v AC; 20 amps, 125 v DC; black molded bakelite body, locking; two 0.190" diam mtg holes on 1-13/16" mtg/c; 3 screw type term; cont silver pl; R and S Ever-lok type; RCA part/dwg K-864222-1	Power Input Receptacle Used w/ P-401 on Front Panel
J-402	N17-C-72266-5711	CONNECTOR, RECEPTACLE: 9 round female cont; straight type; 1-7/8" h x 2" wd x 2" lg o/a; cylindrical aluminum body w/ sq mtg fl; molded black bakelite insert natural finish; four 0.147" diam mtg holes on 1-9/16" x 1-9/16" mtg/c; cable end of body thd 1-3/4"-18 thd x 13/16" lg; tropicalized insert; AN-3102A-28-4S; RCA part/dwg K-866555-1; spec MIL-C-5015	Power Output Receptacle on Front Panel Used w/ P-403
J-403		Same as J-402	Power Output Receptacle on Front Panel
L-401	N16-C-76504-5350	COIL, RF: NT #47943; line filter choke; 2 wnd, 1 single layer wnd, 1 universal wnd in 3 pies; unshielded; 647 uh at 1000 cyc test freq, 1.4 amps, 0.78 ohm DC resistance; 5-11/32" lg x 1-3/16" OD approx o/a; black lam phenolic form w/ adj powdered iron core slug in universal wnd end; form 4-1/2" lg x 3/4" OD; adj powdered iron core slug; scdr adj at top ctr; mtg stud #8-32 x 5/16" lg bottom ctr; 2 wire leads 3" lg near top, 2 solder lug term near bottom; varnished and baked; RCA part/dwg K-826863-502	Line Filter Choke
L-402		Same as L-401	Line Filter Choke
L-403		Same as L-401	Line Filter Choke
L-404		Same as L-401	Line Filter Choke
L-405	N16-R-29688-8121	REACTOR: NT #30788; filter choke; 10 hy, 170 ma; 106 ohms DC resistance; 1500 v RMS 15 sec test; HS metal case; 4" sq x 4-1/2" h o/a; four 0.180" diam mtg holes on 3-3/8" x 3-3/8" mtg/c; 3 solder lug term on bottom; one top on wnd, marked w/ mfg part/dwg # and Navy type #; RCA part/dwg K-900934-502	Filter
L-406		Same as L-405	Filter

CONTRACT NObsr-52028

*Not furnished as a maintenance part. If failure occurs, do not request replacement unless the item cannot be repaired or fabricated.

TABLE 8-4. TABLE OF REPLACEABLE PARTS FOR MODELS RBB-5/6 AND RBC-5/6 RADIO RECEIVING EQUIPMENT

REF. SYMBOL	STOCK NUMBERS SIGNAL CORPS AIR FORCE	NAME OF PART AND DESCRIPTION	LOCATING FUNCTION
O-401	N17-S-46788-6610	SPRING: flat type; power unit safety spring; 0.064" thk phosphor bronze sheet, extra hard white nickel pl; 5-15/16" lg x 5/8" wd o/a; two 0.147" diam mtg holes, ea 3/16" ctr to end and two 0.173" diam mtg holes on 5/16" ctr, ea 3-11/32" c to c w/ other holes; end w/ holes curved flatwise on 12" rad starting 2" from end; RCA part/dwg K-856568-1	Safety Spring for Power Unit Chassis
O-402	N17-S-46773-5551	SPRING: corrugated flat ring type; for output connector; 0.010" thk phosphor bronze spring temper, nickel pl; 1-7/8" OD x 1-19/32" ID x 1/8" h o/a; corrugated w/ 8 opposing bends spaced at 45 deg; RCA part/dwg K-871667-1	Spring for Output Plugs P-402, P-403
P-401	N17-C-71476-9103	CONNECTOR, PLUG: NT #49125; 3 round male cont pol; straight type; 1-3/4" OD x 3-1/8" lg o/a; 10 amp at 440 v AC or 250 v DC and 20 amp at 125 v DC; cylindrical steel locking body cad pl; molded bakelite insert; cable opening 3/8" diam max; mts on cable; incl watertight rubber insert, cable grip bushing, and compression nut; R&S their type #8153; RCA part/dwg K-864221-1	110 V Line Input Plug Used w/ J-401
P-402	N17-C-70196-8806	CONNECTOR, PLUG: 9 round male cont pol; 90 deg angle type; 1-31/32" OD x 3-3/8" lg x 2-1/2" d o/a; cylindrical aluminum locking body, sand blasted; molded phenolic comp insert; coupling nut 1-3/4" -18 thd x 23/32" lg female mtg insert end, 1-7/8"-18 thd x 3/8" lg male conduit thd other end; AN-3108B-28-4P; Cannonelec #2101-7; RCA part/dwg P-737857-1	Output Plug (Part of W-401) Used w/ J-301
P-403		Same as P-402	Output Plug (Part of W-401) Used w/ J-402
R-401	N16-R-49941-551	RESISTOR, FIXED: comp; JAN type #RC40BF122K; 1200 ohms p/m 10%; 2 w; characteristic F; 1.41" max lg x 0.405" max diam; ins; 2 axial wire lead term; color coded; RCA part/dwg P-722353-63	Bleeder (Part of E-405)
R-402		Same as R-401	Bleeder (Part of E-405)
R-403		Same as R-401	Bleeder (Part of E-405)
T-401	N17-T-74017-4133	TRANSFORMER POWER: NT #30790; fil and plate type; input 110/115/120 v, 60 cyc, single ph; 4 output wnd; secd #1 - 550 v at 0.120 amp CT, secd #2 - 6.3 v at 11.1 amp CT, secd #3 - 17 v at 1.2 amp, secd #4 - 5 v at 3 amp; 2500 v ins; castor oil impr, asphalt base compound potted; HS metal case; 5-5/32" h x 4-3/4" wd x 4-3/16" d; 15 solder lug term steatite bushing mtd, 5/8" h on bottom of case; 4 mtg holes 0.199" diam on 2-1/4" x 4-3/8" mtg/c; RCA part/dwg K-901013-501	Power - Top of Chassis Right Rear
V-401	N16-T-55464	TUBE ELECTRON: JAN type 5U4G; high vacuum, full wave rectifier	HV Rectifier
V-402	N16-T-53050	TUBE ELECTRON: JAN type OC3VR105; voltage regulator	Voltage Regulator
W-401	N17-C-48409-2146	CABLE ASSEMBLY, POWER: NT #49162-A; 9 conds two #18 AWG tinned copper cond, Vinyl ins, glass braid, flame, fungus, and moisture resistant lacquer coating, twisted and covered w/ tinned copper wire braid w/ 2 layers black glazed cotton yarn o/a; two #16 AWG twisted pair 26 strands #30 AWG tinned copper cond, five #18 AWG tinned copper 19 strands 0.0092" diam cond, Vinyl ins glass braid, flame, fungus, and moisture resistant lacquer coating, 1000 v working o/a, per spec JAN-C-76 o/a, all encased in 5/8" ID flex shielding conduit, inner tubing of pl brass or bronze strip, spirally wnd and interlocking w/ tinned bronze wire braid o/a; 72" lg o/a cond length; conduit terminated ea end w/ cad pl brass ferrule and 1-7/16"-18 thd female coupling nut; cond terminated ea end in type AN3108-28-4P female connector; RCA part/dwg P-721090-501	Power Supply To Receiver
X-401	N16-S-53524-6475	SOCKET, TUBE: NT #49373; octal med cont; retainer ring saddle mtg; two #6-32 tapped mtg holes on 1-5/8" mtg/c; round steatite ceramic body 1-1/4" diam x 1/2" h less term; SS saddle 2" lg x 1-3/8" wd; phosphor bronze, silver pl cont w/ ends hot tin dipped; socket marked w/ NT #49373; w/ SS mtg plate and nickel pl, steel retainer rings keyway 45 deg angle w/ mtg holes 4 o'clock; (keyway rotatable); RCA part/dwg M-421395-503; Navy dwg #RE49AA313A	HV Rect Tube Socket for V-401
X-402		Same as X-401	V Regulator Tube Socket for V-402
		CASE: spare parts box; steel w/ smoky gray finish; empty; 6" h x 18" wd x 12" d o/a; w/o compartments, trays or lining; 2 folding type handles, 1 on ea end; hasp and staples for padlock; RCA part/dwg T-618947-508	For Spares

TABLE 8-5. MAINTENANCE PARTS KIT
FOR MODELS RBB-5/6 AND RBC-5/6 RADIO RECEIVING EQUIPMENT

KEY DESIGNATION	BOX NO.	QUANTITY	
		RBB-5/6	RBC-5/6
C-341		1	1
C-342		1	1
C-343		4	4
L-101		1	0
L-201		0	1
L-301-1		1	0
L-301-2		0	1
L-303		1	1
L-304		1	1
L-305		1	1
L-306		1	1
L-308		1	1
L-401		2	2
L-405		1	1
R-361		1	1
S-101		2	2
T-101		1	0
T-102		1	0
T-103		1	0
T-104		1	0
T-105		1	0
T-106		1	0
T-107		1	0
T-108		1	0
T-113		1	0
T-114		1	0
T-115		1	0
T-116		1	0
T-201		0	1
T-202		0	1
T-203		0	1
T-204		0	1
T-205		0	1
T-206		0	1
T-207		0	1
T-208		0	1
T-212		0	1
T-213		0	1
T-214		0	1
T-215		0	1
T-216		0	1
T-301		1	1
T-302		1	1
T-303		1	1
T-304		1	1
T-305		1	1
T-306		1	1
T-401		1	1
Z-301		1	1

TABLE 8-6. CROSS REFERENCE PARTS LIST FOR MODELS RBB-5/6 AND RBC-5/6 RADIO RECEIVING EQUIPMENT

JAN (OR AWS) DESIGNATION	KEY SYMBOL	NAVY TYPE	KEY SYMBOL	NAVY TYPE	KEY SYMBOL	STANDARD NAVY STOCK NO.	KEY SYMBOL	STANDARD NAVY STOCK NO.	KEY SYMBOL
5U4G	V-401	24000	S-301	482927-5	C-208	N16-C-15431-4880	C-216	N16-C-76504-1503	L-101
6AB7	V-103	24003	S-305	484717	C-149	N16-C-15531-9155	C-302	N16-C-76504-5350	L-401
6H6	V-305	28032-3	F-401	484764-5	C-209	N16-C-15758-2916	C-304	N16-C-76520-6390	T-216
6K6GT	V-311	30788	L-405	484765-5	C-101	N16-C-15917-1938	C-102	N16-C-76532-3585	T-215
6SK7	V-101	30789	T-301	484766-5	C-104	N16-C-15956-5594	C-104	N16-C-76565-8135	T-214
991	V-105	30790	T-401	484768-10	C-216	N16-C-15956-9803	C-209	N16-C-76607-5661	T-213
CM20C101K	C-501	47926	L-306	484782-5	C-207	N16-C-15988-5272	C-101	N16-C-76634-3481	T-116
CM35E103K	C-505	47939	L-303	48595-A10	C-344	N16-C-16020-1082	C-206	N16-C-76678-6516	T-113
CM35E512J	C-504	47940	L-305	48674-B10	C-217	N16-C-16084-5272	C-207	N16-C-76925-5850	L-201
CM40E103K	C-502	47941	L-201	48691-D5	C-107	N16-C-16180-7408	C-208	N16-C-92551-5501	O-306
CP63B1FG104K	C-405	47942	L-308	48691-D10	C-106	N16-C-25102-6281	C-201	N16-D-46592-9720	N-201
MR25Y126	M-303	47943	L-401	48710-C10	C-204	N16-C-26025-8281	C-204	N16-D-46592-9725	N-101
MR25Y300DCVV	M-301	47978	T-302	48721	C-406	N16-C-26447-8686	C-202	N16-F-32088-9901	L-301-2
RC20BF102K	R-104	47978	T-303	48771-C10	C-201	N16-C-26732-9606	C-307	N16-F-32088-9978	L-301-1
RC20BF103K	R-215	47978	T-304	48788-D5	C-307	N16-C-27629-8211	C-105	N16-F-44295-1002	Z-501
RC20BF104K	R-109	47982	T-305	48848-B10	C-123	N16-C-27634-8686	C-210	N16-F-44300-6106	Z-301
RC20BF105K	R-216	47983	T-306	48856-B5	C-323	N16-C-28558-1676	C-217	N16-G-600001-144	N-102
RC20BF112J	R-329	47988	T-205	48895-D10	C-210	N16-C-28558-1681	C-501	N16-H-150001-169	E-103
RC20BF123J	R-333	47989	T-206	48895-E5	C-105	N16-C-29523-1620	C-108	N16-H-76701-1022	O-105
RC20BF124J	R-346	47990	T-207	48938-B10	C-115	N16-C-29945-2020	C-109	N16-K-700310-987	E-104
RC20BF124K	R-213	47991	T-208	49021-A	J-303	N16-C-30156-9522	C-318	N16-K-700346-101	E-304
RC20BF152K	R-127	471024	T-212	49120	J-101A	N16-C-30162-1606	C-107	N16-K-700400-127	E-102
RC20BF153J	R-365	471029	T-108	49121-A	P-101	N16-C-30167-2086	C-106	N16-K-700408-516	E-101
RC20BF155K	R-337	471030	T-107	49125	P-401	N16-C-30420-7527	C-110	N16-O-55015-7776	E-333
RC20BF184K	R-338	471031	T-106	49126	J-401	N16-C-31053-8122	C-111	N16-O-66002-6751	T-306
RC20BF222K	R-115	471032	T-105	49152	P-102	N16-C-31090-4076	C-150	N16-P-403081-103	O-301
RC20BF223K	R-328	472129	T-113	49160	P-301	N16-C-31507-4084	C-308	N16-P-403081-104	O-103
RC20BF224K	R-335	472130	T-114	49161	J-302	N16-C-31797-5484	C-323	N16-P-403081-105	O-303
RC20BF225K	R-356	472131	T-115	49162-A	W-401	N16-C-31797-5499	C-218	N16-R-29688-8121	L-405
RC20BF242J	R-372	472132	T-116	49194	J-501	N16-C-32140-4704	C-219	N16-R-33591-1030	A-203
RC20BF273J	R-353	472133	T-213	49368	X-106	N16-C-32193-2501	C-220	N16-R-33591-1031	A-204
RC20BF274K	R-347	472134	T-214	49373	X-101	N16-C-32699-3467	C-112	N16-R-33591-1032	A-202
RC20BF331K	R-120	472135	T-215	49373	X-104	N16-C-32699-4608	C-259	N16-R-33591-1058	A-102
RC20BF333K	R-128	472136	T-216	49373	X-301	N16-C-32720-7543	C-504	N16-R-33591-1122	A-103
RC20BF333K	R-211	472137	L-101	49373	X-401	N16-C-33622-5223	C-123	N16-R-33591-1126	A-104
RC20BF362J	R-330	472156	L-304	49509	P-301A	N16-C-33622-5237	C-505	N16-R-33591-1233	E-105
RC20BF392K	R-315	481037-B10	C-259	53090	L-301-1	N16-C-33622-5344	C-258	N16-R-33591-1236	A-501
RC20BF393K	R-320	481088-B5	C-308	53091	L-301-2	N16-C-33622-5588	C-115	N16-R-33591-1254	E-210
RC20BF394K	R-354	481167-10	C-343	53278	Z-301	N16-C-33622-5604	C-502	N16-R-49598-811	R-102
RC20BF471K	R-310	481378	C-129	61172	E-106	N16-C-45773-7716	C-341	N16-R-49706-811	R-120
RC20BF472K	R-105	481379-10	C-341	61260	E-111	N16-C-45780-5957	C-405	N16-R-49769-811	R-310
RC20BF473K	R-108	481380-10	C-342	631092-10	R-361	N16-C-48813-7716	C-344	N16-R-49804-431	R-342
RC20BF474K	R-349	481425-B10	C-112	631094-15	R-321	N16-C-51837-2615	C-406	N16-R-49841-811	R-309
RC20BF501J	R-342	481433-F1	C-108	631096-15	R-369	N16-C-52972-9972	C-342	N16-R-49922-811	R-104
RC20BF562K	R-204	481434-F1	C-109	631098-15	R-363	N16-C-53227-3460	C-343	N16-R-49930-431	R-329
RC20BF681K	R-309	481435-E2	C-110	631142-15	R-364	N16-C-58467-4427	C-128	N16-R-49941-551	R-401
RC20BF682K	R-325	481436-E2	C-111	636080-L10	R-116	N16-C-59255-6334	C-129	N16-R-49967-811	R-127
RC20BF683K	R-332	481657-B10	C-150	63678-100	R-301	N16-C-63652-2813	C-257	N16-R-50012-811	R-115
RC20BF824K	R-357	481676	C-318	63678-101	R-101	N16-C-63653-2916	C-149	N16-R-50020-431	R-372
RC30BF233K	R-113	481692-A5	C-102	63678-220	R-305	N16-C-72665-4959	L-304	N16-R-50083-431	R-330
RC30BF333K	R-122	481811	C-218	63678-221	R-124	N16-C-72955-5501	L-303	N16-R-50093-811	R-315
RC40BF103K	R-327	481812	C-219	636581-L15	R-368	N16-C-73023-9303	L-305	N16-R-50129-811	R-105
RC40BF122K	R-401	481813	C-220	636674-L15	R-362	N16-C-73232-2872	L-306	N16-R-50165-811	R-204
		481814	C-258	63705-10	R-118	N16-C-73329-3531	L-501	N16-R-50201-811	R-325
		482923-10	C-304	STANDARD NAVY STOCK NO.	KEY SYMBOL	N16-C-75849-5144	L-308	N16-R-50282-811	R-215
		482925	C-257			N16-C-76503-1475	T-115	N16-R-50283-551	R-327
		482926-5	C-206	G41-W-2446	H-101	N16-C-76503-4127	T-114	N16-R-50308-431	R-333
								N16-R-50335-431	R-365

TABLE 8-6. CROSS REFERENCE PARTS LIST (Cont.)

STANDARD NAVY STOCK NO.	KEY SYMBOL
N16-R-50372-811	R-328
N16-R-50373-231	R-113
N16-R-50398-431	R-353
N16-R-50417-811	R-128
N16-R-50418-231	R-122
N16-R-50444-811	R-320
N16-R-50480-811	R-108
N16-R-50552-811	R-332
N16-R-50633-811	R-109
N16-R-50650-431	R-346
N16-R-50651-811	R-213
N16-R-50696-811	R-338
N16-R-50714-811	R-335
N16-R-50741-811	R-347
N16-R-50786-811	R-354
N16-R-50822-811	R-349
N16-R-50930-811	R-357
N16-R-50975-0811	R-216
N16-R-51020-811	R-337
N16-R-51065-811	R-356
N16-R-68315-6186	R-301
N16-R-68321-2361	R-118
N16-R-68325-6006	R-305
N16-R-68357-7426	R-101
N16-R-68367-7246	R-124
N16-R-87440-6910	R-321
N16-R-87750-6700	R-368
N16-R-88010-6610	R-364
N16-R-88010-6810	R-369
N16-R-88180-6810	R-362
N16-R-88937-8843	R-363
N16-R-89891-9810	R-116
N16-R-92567-1312	R-361
N16-S-60841-4251	X-106
N16-S-63462-8201	X-101
N16-S-63524-6475	X-104
N16-S-63524-6475	X-301
N16-S-63524-6475	X-401
N16-S-63524-6480	X-501
N16-T-25301-1239	W-101
N16-T-55464	V-401
N16-T-56092	V-106
N16-T-56127	V-103
N16-T-56346	V-305
N16-T-56410	V-311
N16-T-56670	V-101
N16-T-98028-2001	A-101
N16-T-98049-4991	A-201
N17-A-27451-1012	P-301A
N17-B-77735-7499	E-105A
N17-B-77984-9201	E-107A
N17-C-48409-2146	W-401
N17-C-70196-8806	P-402
N17-C-71107-8086	P-102
N17-C-71120-4869	P-101
N17-C-71464-5859	P-301
N17-C-71476-9103	P-401
N17-C-72266-5711	J-402
N17-C-73108-5890	J-501
N17-C-73163-6117	J-302
N17-C-73273-8163	J-301
N17-C-73411-2793	J-101A
N17-C-73471-2904	J-401
N17-C-77409-5501	E-129
N17-C-77417-3687	O-203
N17-C-79428-7259	E-136
N17-C-98378-3901	O-305
N17-C-98379-2293	O-101
N17-F-16302-120	F-401
N17-F-74266-9101	E-402
N17-I-48694-8701	E-111
N17-I-48996-5547	E-226
N17-I-49509-1582	E-224
N17-I-50070-5501	E-313
N17-I-69172-6201	E-221
N17-I-69174-6201	E-106
N17-I-69202-3301	E-225
N17-J-39528-2090	J-303
N17-L-51627-1909	X-101A
N17-L-51709-8664	X-105
N17-L-6305	I-101
N17-L-6811	V-105
N17-L-76854-3936	X-301A
N17-M-22712-9201	M-303
N17-M-22790-2301	M-302
N17-M-35566-2026	M-301
N17-M-75074-3501	A-105
N17-M-75103-3501	A-106
N17-S-250051-163	J-101B
N17-S-46667-5101	O-110
N17-S-46730-4605	O-109
N17-S-46773-5551	O-402
N17-S-46782-3351	O-102
N17-S-46788-6001	O-104
N17-S-46788-6610	O-401
N17-S-59673-8341	S-303
N17-S-61497-2081	S-302
N17-S-62205-9901	S-101
N17-S-67040-3865	S-304
N17-S-70598-1802	S-301
N17-S-74049-5902	S-305
N17-S-91671-1051	S-308
N17-S-91897-8782	S-306
N17-T-66807-1001	T-301
N17-T-67569-9453	T-305
N17-T-67570-2327	T-302
N17-T-67570-2327	T-303
N17-T-67570-2327	T-304
N17-T-74017-4133	T-401
N17-T-82189-3155	T-201
N17-T-82189-1853	T-205
N17-T-82196-5311	T-206
N17-T-82196-5353	T-202
N17-T-82207-3426	T-207
N17-T-82209-1719	T-208
N17-T-82209-1721	T-212
N17-T-82209-1878	T-204
N17-T-82436-6939	T-203
N17-T-82437-6031	T-102
N17-T-82437-6033	T-103
N17-T-82437-8733	T-101
N17-T-82437-8735	T-104
N17-T-82442-1173	T-108
N17-T-82442-1175	T-107
N17-T-82442-1177	T-106
N17-T-82442-1179	T-105
N41-W-2449-15	H-102
N43-N-9699-330	H-306
N43-N-9699-350	H-305
N43-S-13503	H-104
N43-S-19021-3350	H-103

SIGNAL CORPS STOCK NO.	KEY SYMBOL
2Z3273-129	O-306
3RC20BF333K	R-128

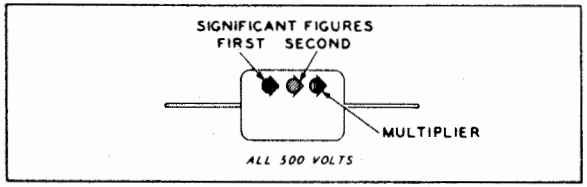
CONTRACT NObsr-52028

IB-39558-V1

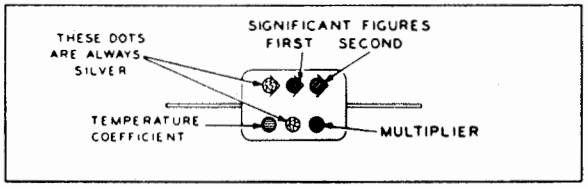
TABLE 8-7. APPLICABLE COLOR CODES AND MISCELLANEOUS DATA

CAPACITOR COLOR CODES

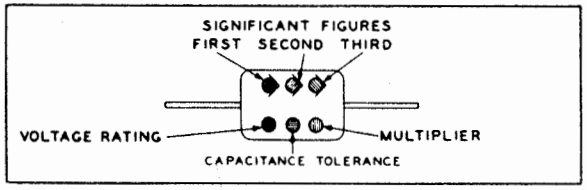
RMA 3-DOT COLOR CODE FOR MICA-DIELECTRIC CAPACITORS



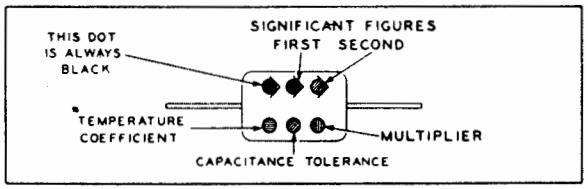
JAN 6-DOT COLOR CODE FOR PAPER-DIELECTRIC CAPACITORS



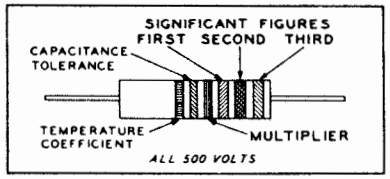
RMA 6-DOT COLOR CODE FOR MICA-DIELECTRIC CAPACITORS



JAN 6-DOT COLOR CODE FOR MICA-DIELECTRIC CAPACITORS

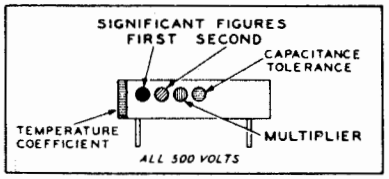


RMA COLOR CODE FOR TUBULAR CERAMIC-DIELECTRIC CAPACITORS

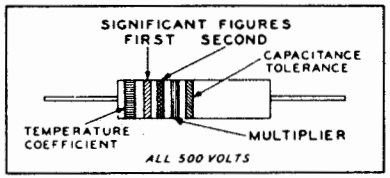


JAN COLOR CODE FOR FIXED CERAMIC-DIELECTRIC CAPACITORS

RADIAL TYPE NON-INSULATED



AXIAL TYPE INSULATED



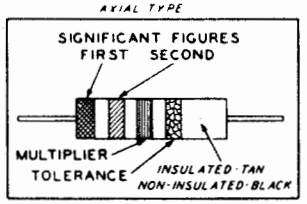
RMA: RADIO MANUFACTURERS ASSOCIATION
JAN: JOINT ARMY-NAVY

RESISTORS		CAPACITORS						
				MULTIPLIER				
TOLERANCE	MULTIPLIER	SIGNIFICANT FIGURE	COLOR	RMA MICA AND CERAMIC-DIELECTRIC	JAN MICA AND PAPER-DIELECTRIC	JAN CERAMIC DIELECTRIC	VOLTAGE RATING	TEMPERATURE COEFFICIENT
	1	0	BLACK	1	1	1		A
	10	1	BROWN	10	10	10	100	B
	100	2	RED	100	100	100	200	C
	1000	3	ORANGE	1000	1000	1000	300	D
	10,000	4	YELLOW	10,000			400	E
	100,000	5	GREEN	100,000			500	F
	1,000,000	6	BLUE	1,000,000			600	G
	10,000,000	7	VIOLET	10,000,000			700	
	100,000,000	8	GRAY	100,000,000		0.01	800	
	1,000,000,000	9	WHITE	1,000,000,000		0.1	900	
5	0.1		GOLD	0.1	0.1		1000	
10	0.01		SILVER	0.01	0.01		2000	
20			NO COLOR				500	

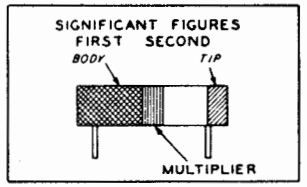
RESISTOR COLOR CODES

RMA COLOR CODE FOR FIXED COMPOSITION RESISTORS

AXIAL TYPE

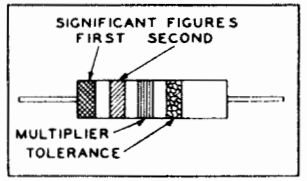


RADIAL TYPE



JAN COLOR CODE FOR FIXED COMPOSITION RESISTORS

AXIAL TYPE INSULATED



RADIAL TYPE NON-INSULATED

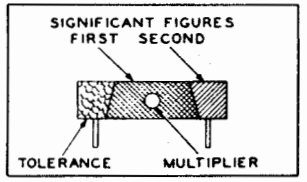


TABLE 8-8. LIST OF MANUFACTURERS FOR MODELS RBB-5/6 AND RBC-5/6 RADIO RECEIVING EQUIPMENT

CODE NUMBER	MFR. PREFIX	NAME	ADDRESS
1	CRV	Radio Corp. of America Victor Division	Front and Cooper Streets Camden, N. J.
30	CPH	American Phenolic Corp.	1830 S. 54th Street Cicero, Ill.
35		Amperite Corp.	561 Broadway New York, N. Y.
114	CED	Cannon Electric Development Co.	3201 Humboldt Street Los Angeles, Calif.
207	CER	Erie Resistor Corp.	644 W. 12th Street Erie, Pa
246	CG	General Electric Co.	Schenectady, N. Y
277	CHC	Hammarlund Mfg. Co.	460 W. 34th Street New York, N. Y.
321	CIR	International Resistance Corp.	401 N. Broad Street Philadelphia, Pa.
323	CBU	Isolantite, Inc.	343 Courtland Street Belleville, N. J.
371		Lord Mfg. Co.	Erie, Pa.
429		National Lock Co.	Rockford, Ill.
451	COC	Oak Mfg. Co.	1200 N. Clybourne Avenue Chicago, Ill.
516	CRV	Radio Corp. of America Tube Division	151 Westside Avenue Harrison, N. J.
640		Tinnerman Stove and Range Co.	Cleveland, O.
670	CAY	Westinghouse Electric and Mfg. Co.	3001 Walnut Street Philadelphia, Pa.
684	CWC	Wirt Co.	5221 Greene Street Philadelphia, Pa
714	CAW	Aerovox Wireless Corp.	742 Bellville Avenue New Bedford, Mass.
722	CBZ	Allen Bradley Co.	1326 S. 2nd Street Milwaukee, Wis.
731		Allen Mfg. Co.	Hartford, Conn.
769		A. G. Redmond Co.	201-311 Monroe Street Owosso, Mich.
776		Drake Mfg. Co.	1713 Hubbard Street Chicago, Ill.
780		Dial Light Co. of America, Inc.	90 West Street New York, N. Y.
784	CLF	Littelfuse Laboratories, Inc.	4757 N. Ravenswood Avenue Chicago, Ill.
787		Alden Products Co.	715 Center Street Brockton, Mass.
825	CSR	Russell and Stoll Co., Inc.	125 Barclay Street New York, N. Y.
846		Winchester Electronics	6 E. 46th Street New York.17, N. Y.
1050		General Electric Mazda Corp.	Bloomfield, N. J.

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