NAVSHIPS 900,477 RESTRICTED

INSTRUCTION BOOK

FOR

RADIO RECEIVING EQUIPMENTS

NAVY MODELS

RBB/RBC
RBB-1/RBC-1
RBB-2/RBC-2

MANUFACTURED

BY

RCA VICTOR DIVISION, RADIO CORPORATION OF AMERICA

Camden, New Jersey, U. S. A.

FOR

NAVY DEPARTMENT BUREAU OF SHIPS

Contracts
RBB/RBC: NOs-73056
RBB-1/RBC-1: NOs-91265
RBB-2/RBC-2: NXss-17001
RBB-2/RBC-2: NXsr-39262

Approved 7 April 1945

U.S. Bureau of ships.

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Approved 7 April 1945
IB-38094/38094-1/38216/38269

NAVY DEPARTMENT—BUREAU OF SHIPS
Washington 25, D. C.

7 April 1945

1. NAVSHIPS 900,477 is a restricted non-registered instruction book covering the installation, operation, maintenance, parts and spare parts lists of Models RBB/RBC, RBB-1/RBC-1, and RBB-2/RBC-2 Radio Receiving Equipments.

2. When superseded by a later edition, or when no longer required, this publication should be destroyed. No report of such destruction is required.

3. Spare Parts Lists for the equipment are contained herein.

4. Copies of the instruction book or appropriate spare parts lists (for contract number see equipment nameplate) should be obtained from the nearest Radio Material Pool.

/s/ J. P. DOW
By direction

SECURITY NOTICE

NOTICE: This document contains information affecting the national defense of the United States within the meaning of the Espionage Act, 50 U.S.C., 31 and 32, as amended. Its transmission or the revelation of its contents in any manner to an unauthorized person is prohibited by law. (ART 76, U.S.N. REGS-1920.) The information contained in restricted documents and the essential characteristics of restricted material will not be communicated to the public or to the press, but may be given to any person known to be in the service of the United States and to persons of undoubted loyalty and discretion who are cooperating in Government work.

RECORD OF CORRECTIONS MADE

Change No.	Date	Signature of Officer Making Correction

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NOs-91265
NXss-17001

CONTRACTUAL GUARANTEE

The equipment, including all parts and spare parts, except vacuum tubes, is guaranteed for a service period of TWO years with the understanding that, as a condition of this contract, all items found to be defective as to design, material, workmanship or manufacture will be replaced without delay and at no expense to the Government; provided that such guarantee and agreement will not obligate the contractor to make replacement of defective material unless the failure, exclusive of normal expected shelf life deterioration, occurs within a period of FIVE YEARS from the date of delivery of the equipment to and acceptance by the Government; and provided further, that if any part or parts (except vacuum tubes) fail or are found defective to the extent of ten per cent (10%) or more of the total number, of similar units furnished under the contract (exclusive of spares) such part or parts whether supplied in the equipment or as spares, will be conclusively presumed to be of defective design, and as a condition of contract subject to one hundred per cent (100%) replacement by suitable redesigned units.

Failure due to poor workmanship, while not necessarily indicating poor design, will be considered in the same category as failure due to poor design. Redesigned replacements which will assure proper operation of the equipment will be supplied promptly, transportation paid, to the Naval activity using such equipment, upon receipt of proper notice and without cost to the Government.

All such defective parts 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 item or unit prior to replacement without jeopardizing the integrity of Naval communications, the exigencies of the Service therefore may necessitate expeditious repair of such item or unit in order to prevent extended interruption of communications. In such cases the return of a defective item or unit for examination by the contractor prior to replacement will not be required. The report of a responsible authority, including details of the conditions surrounding the failure, will be acceptable for effective adjustment under the provisions of this contractual guarantee.

The above period of FIVE YEARS and the service period of TWO YEARS will not include any portion of the time that the equipment fails to give satisfactory performance due to defective items and the necessity for replacement thereof. All replacement parts will be guaranteed to give TWO YEARS of satisfactory service.

TUBE GUARANTEE

All vacuum tubes supplied with this equipment are covered by the Manufacturer's warranty, regarding freedom from defects of design, material and workmanship. The use of each tube in these particular equipments will assure a tube life expectation of at least fifty (50) hours under full load conditions.

CONTRACT: NXsr-39262

CONTRACTUAL 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 per cent (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 per cent (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.

TUBE GUARANTEE

All vacuum tubes supplied with this equipment are covered by the Manufacturer's warranty, regarding freedom from defects of design, material and workmanship. The use of each tube in these particular equipments will assure a tube life expectation of at least fifty (50) hours under full load conditions. Reference Radio and Sound Bulletins, Number 9, dated 1 Jan., 1943, page 6, and Number 14, dated 1 April, 1944, page 17.

INSTALLATION RECORD

Contract:		Date of Contract:
	RBB/RBC: NOs-73056	**April 13, 1940**
	RBB-1/RBC-1: NOs-91265	**September 2, 1941**
	RBB-2/RBC-2: NXss-17001	**June 17, 1943**
	RBB-2/RBC-2: NXsr-39262	**November 3, 1943**

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 in this table 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 service life, shall be made to the Bureau of Ships on Failure Report form NBS-383 in accordance with current instructions. 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 — Navy stock number or, when ordering from an Army supply depot, the Army stock number.

2 — Name of part.

If the Navy stock number has not been assigned, the requisitions should specify the following:

1 — Equipment model designation.

2 — Name of part and complete description.

3 — Manufacturer's designation.

4 — Contractor's drawing and part number.

5 — AWS, JAN, or Navy type designation.

SAFETY NOTICE

THE ATTENTION OF OFFICERS AND OPERATING PERSONNEL IS DIRECTED TO CHAPTER 67 OF BUREAU OF SHIPS MANUAL OR SUPERSEDING INSTRUCTIONS ON THE SUBJECT OF RADIO-SAFETY PRECAUTIONS TO BE OBSERVED.

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 times 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 enclosures 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.

SECTION I – GENERAL DESCRIPTION

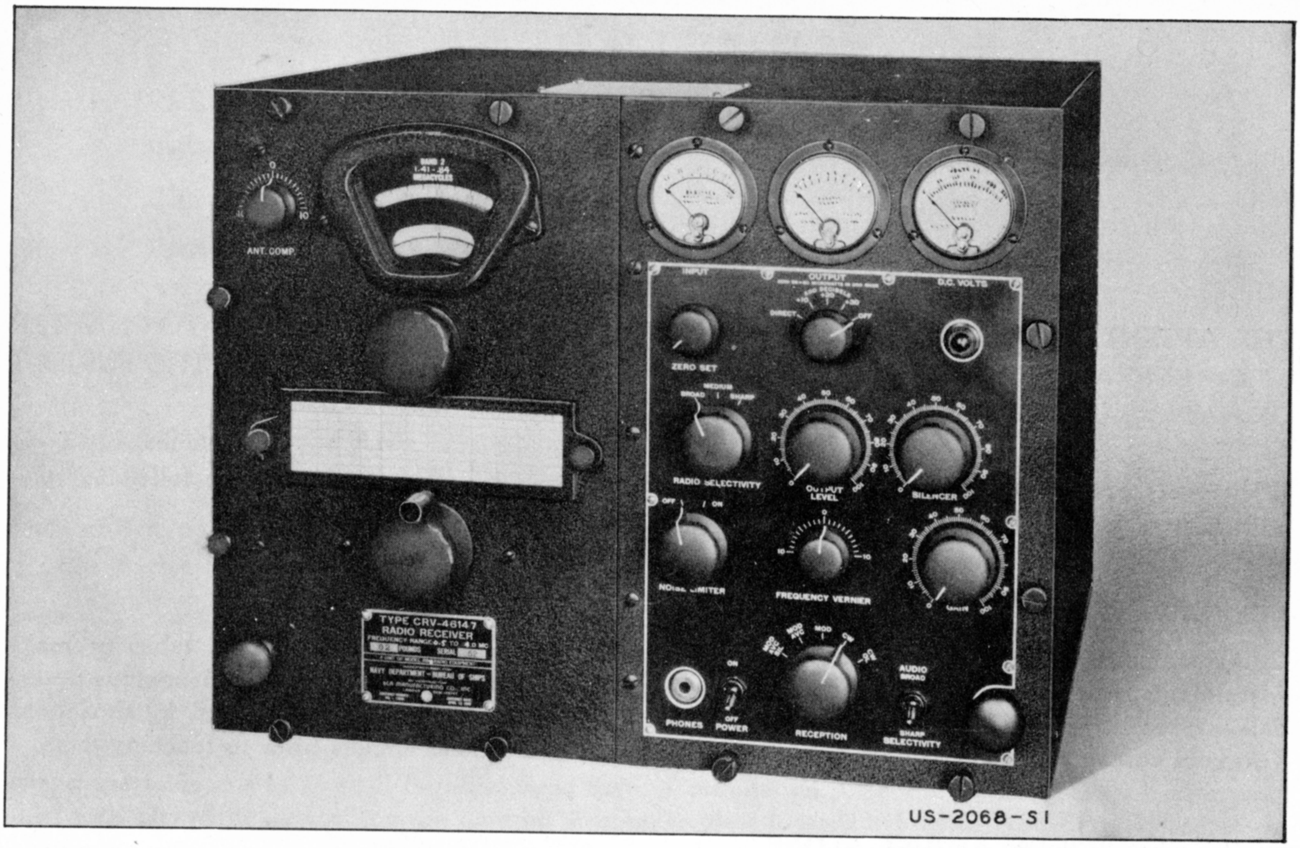


Figure 1-1 — Model RBB Radio Receiver, Navy Type CRV-46147 (Front View)

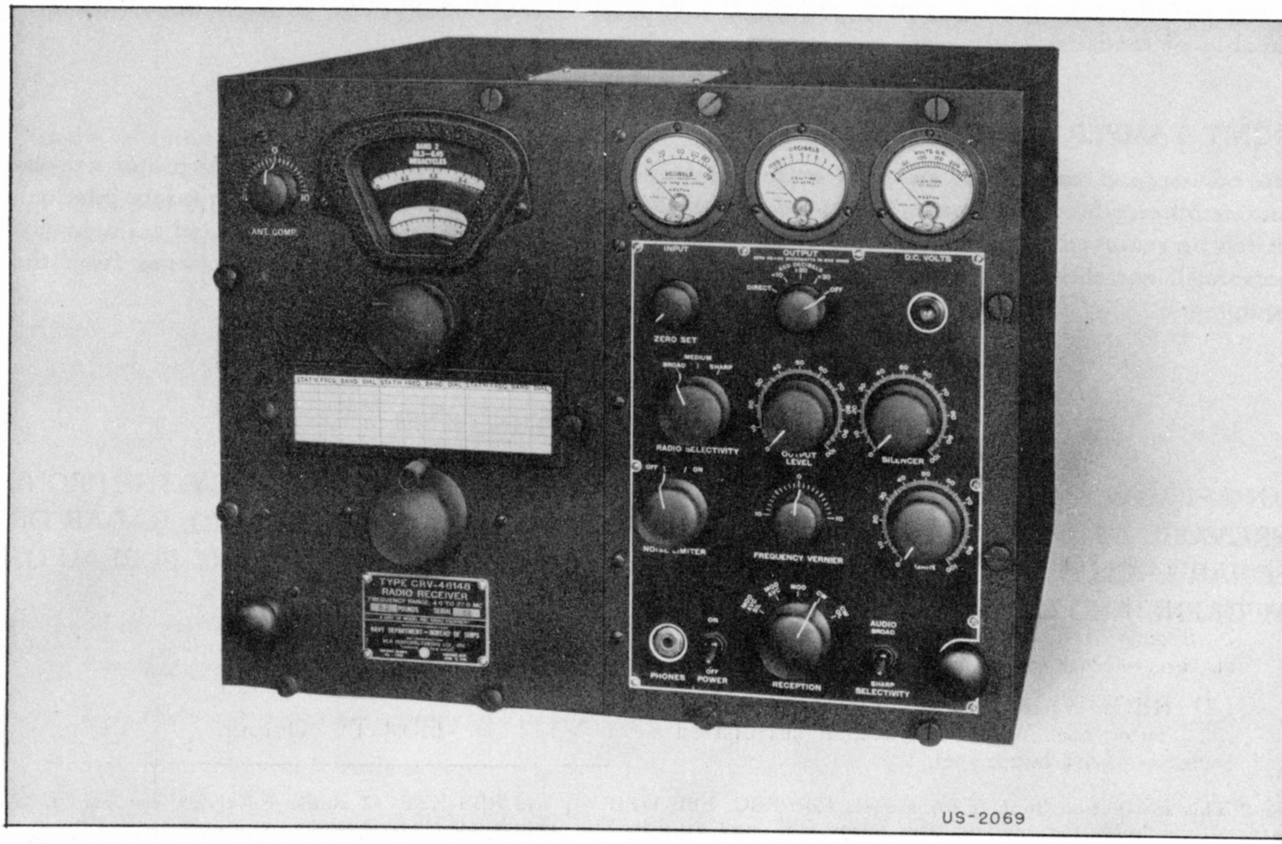


Figure 1-2 — Model RBC Radio Receiver, Navy Type CRV-46148 (Front View)

SECTION I
GENERAL DESCRIPTION

1. QUICK REFERENCE DATA.

a. NAME AND DESIGNATION OF ALL EQUIPMENTS.—

(1) Navy Models RBB/RBC Radio Receiving Equipments.

(2) Navy Models RBB-1/RBC-1 Radio Receiving Equipments.

(3) Navy Models RBB-2/RBC-2 Radio Receiving Equipments.

b. CONTRACT NUMBERS AND DATES.—

(1) RBB/RBC: NOs-73056; April 13, 1940.

(2) RBB-1/RBC-1: NOs-91265; September 2, 1941.

(3) RBB-2/RBC-2: NXss-17001; June 17, 1943.

(4) RBB-2/RBC-2: NXsr-39262; November 3, 1943 (Second contract).

c. CONTRACTOR.—

(1) RCA Victor Division of Radio Corporation of America, Camden, N. J.

d. NAVAL INSPECTOR.—

(1) Assistant Naval Inspector In Charge, RCA Victor Division, Camden, N. J.

e. FREQUENCY RANGE.—

(1) *RBB: 0.5 to 4.0 Megacycles.

(2) *RBC: 4.0 to 27.0 Megacycles.

f. NUMBER OF PACKAGES INVOLVED PER COMPLETE SHIPMENT OF EQUIPMENT.—

(1) RBB: Two packages.

(2) RBC: Two packages.

g. TOTAL CUBICAL CONTENTS, AS PACKED FOR SHIPMENT.—

(1) RBB: When packed in wood boxes—22.8 cubic feet. When packed in corrugated cartons—18.3 cubic feet.

(2) RBC: When packed in wood boxes—22.8 cubic feet. When packed in corrugated cartons—18.3 cubic feet.

h. TOTAL WEIGHT, AS PACKED FOR SHIPMENT.—

(1) RBB: When packed in wood boxes—312 pounds. When packed in corrugated cartons—261 pounds.

(2) RBC: When packed in wood boxes—305 pounds. When packed in corrugated cartons—261 pounds.

i. VACUUM TUBE COMPLEMENT.—

(1) RBB: See Table 1-1.

(2) RBC: See Table 1-2.

(3) Rectifier Power Unit: See Table 1-3.

TABLE 1-1
VACUUM TUBE COMPLEMENT
MODEL RBB

Symbol	Navy Type	Function
V101	-6SK7	First R-F
V102	-6SK7	Second R-F
V103	-6AB7	Oscillator
V104	-6AB7	First Detector
V105	-991	Voltage Limiter
V106	-6-8B	Amperite
V301	-6SK7	First I-F
V302	-6SK7	Second I-F
V303	-6SK7	Third I-F
V304	-6AB7	CW Oscillator
V305	-6H6	Detector AVC
V306	-6H6	Noise Limiter, Output Limiter
V307	-6SK7	First A-F
V308	-6SK7	Silencer, Output Limiter, Amplifier
V309	-6H6	Silencer, Output Limiter
V310	-6AB7	Second A-F
V311	-6K6GT	Output

* This Instruction Book is for Models RBB/RBC, RBB-1/RBC-1, and RBB-2/RBC-2 Radio Receiving Equipments. In order to simplify the reading, the terms RBB and/or RBC will include all aforementioned equipments. Should it be necessary to refer to a particular equipment, it will be indicated specifically by its particular symbol and number designation.

TABLE 1-2
VACUUM TUBE COMPLEMENT
MODEL RBC

Symbol	Navy Type	Function
V201	–6AB7	First R-F
V202	–6SK7	Second R-F
V203	–6AB7	Oscillator
V204	–6SK7	First Detector
V205	–991	Voltage Limiter
V206	–6–8B	Amperite
V301 to V311 — See Table 1-1		

TABLE 1-3
VACUUM TUBE COMPLEMENT
RECTIFIER POWER UNIT

Symbol	Navy Type	Function
V401	–5U4G	Full Wave Rectifier
V402	–VR–105	Voltage Regulator

2. INTRODUCTION.

a. This Instruction Book covers the description, installation, operation, and maintenance of the Models RBB/RBC, RBB-1/RBC-1, and RBB-2/RBC-2 Radio Receiving Equipments. These radio receivers are primarily designed for operation aboard all types of U.S. Naval vessels or at Naval radio shore stations. The various conditions for which these equipments are particularly suitable include operation of a number of receivers on a single antenna, operation with little frequency separation when the receiver antenna is adjacent to transmitting antennas, operation under the influence of severe vibration, shock of gun firing and rolling, and operation under continuous subjection to high temperatures and high relative humidity.

b. The rectifier power unit is designed to operate with a single receiver unit of the types RBB or RBC equipments. Provision is made, however, for operation of both receiver units from a single power unit as an emergency condition.

c. The circuit includes all necessary provisions for stable and reliable power supply for the RBB/RBC radio receivers. The rectifier power unit is completely shielded in a metal cabinet and includes all necessary filtering for the reduction of a-c hum, and for minimizing interference from local transmitters.

3. COMPLETE EQUIPMENT.

a. See Tables 1-4 and 1-5.

TABLE 1-4
MAJOR UNITS (WOOD BOX)

Quantity		Numerical Series of Reference Symbols	Name of Unit	Navy Type Designations	Height (Inches)		Width (Inches)		Depth (Inches)		Volume (Cubic Feet)		Weight (Pounds)	
RBB	RBC				*A	†B	*A	†B	*A	†B	*A	†B	*A	†B
1		100 - 199 300 - 399	RADIO RE- CEIVER	CRV-46147	14¾	23¾	18⅛	26¾	20⅛	31	3.1	11.4	82	162
	1	200 - 299 300 - 399	RADIO RE- CEIVER	CRV-46148	14¾	23¾	18⅛	26¾	20⅛	31	3.1	11.4	82	155
1	1	400 - 499	RECTIFIER POWER UNIT	CRV-20130	13 7/16	‡23¾	15	‡26¾	9⅞	‡31	1.2	‡11.4	52	‡150

* UNCRATED. † CRATED. ‡ INCLUDES TUBES AND ALL SPARES.

TABLE 1-5
MAJOR UNITS (CORRUGATED CARTON)

Quantity		Numerical Series of Reference Symbols	Name of Unit	Navy Type Designations	Height (Inches)		Width (Inches)		Depth (Inches)		Volume (Cubic Feet)		Weight (Pounds)	
RBB	RBC				*A	†B	*A	†B	*A	†B	*A	†B	*A	†B
1		100 - 199 300 - 399	RADIO RE- CEIVER	CRV-46147	14¾	21	18⅛	24	20⅛	28¼	3.1	8.2	82	111
	1	200 - 299 300 - 399	RADIO RE- CEIVER	CRV-46148	14¾	21	18⅛	24	20⅛	28¼	3.1	8.2	82	111
1	1	400 - 499	RECTIFIER POWER UNIT	CRV-20130	13 7/16	‡21	15	‡26¾	9⅞	‡31	1.2	‡10.1	52	‡150

* UNCRATED. † CRATED. ‡ INCLUDES TUBES AND ALL SPARES.

4. EQUIPMENT SUPPLIED.

a. MODELS RBB/RBC and RBB-1/RBC-1.—See Table 1-6.

TABLE 1-6
ACCESSORIES
MODELS RBB/RBC and RBB-1/RBC-1

Quantity	Description	RCA Reference
1	Antenna Adapter-49152	K-868940-1
1	Concentric Line Plug-49121	K-866698-2
1	Output Phone Plug-49160	K-871681-1
4	Brass Cap-Screws, 5/16" - 18 x 2¼"	K-59286-60
4	Stainless Steel Washers, ⅜" I.D. x 1¾" O.D. x 1/16"	K-866616-1
4	Stainless Steel Lockwashers, 5/16"	K-59048-36
4	Brass Nuts, 5/16" - 18	K-57435-59

b. MODELS RBB-2/RBC-2.—See Table 1-7.

TABLE 1-7
ACCESSORIES
MODELS RBB-2/RBC-2

Quantity	Description	RCA Reference
1	Antenna Adapter-49152	K-868940-1
1	Output Phone Plug Adapter-49509	MX-247930-501
1	Concentric Line Plug-49121	K-866698-2
1	Output Phone Plug-49160	K-871681-1
4	Cap-Screws, 5/16" - 18 x 2¼"	K-59286-60
4	Washers, ⅜" I.D. x 1¾" O.D. x 1/16"	K-866616-1
4	Lockwashers, 5/16"	K-59048-36
4	Nuts, 5/16" - 18	K-57435-59

c. RECTIFIER POWER UNIT.—See Table 1-8.

TABLE 1-8
ACCESSORIES
RECTIFIER POWER UNIT

Quantity	Description	RCA Reference
1	Interconnecting Cable, 6 Feet Long, With Two Female Plugs, CRV-49162	P-721090-501
1	Cable Clamp	K-868989-1
1	Brass Screw, No. 10-32 x 1", RH.	K-57460-71
4	Brass Cap-Screws, 5/16" - 18 x ¾"	K-59286-53
1	Stainless Steel Lockwasher, No. 10	K-59048-33
4	Stainless Steel Lockwashers, 5/16"	K-59048-36
1	Brass Nut, No. 10-32	K-57435-56
4	Brass Nuts, 5/16" - 18	K-57435-59

5. DESCRIPTION OF RADIO RECEIVER.

a. GENERAL.—

(1) The Models RBB/RBC Radio Receivers are similar in construction, employing as many common components and sub-assemblies as is suitable with the different frequency coverages.

(2) Both equipments operate directly from a 110-, 115-, or 120-volt, 60-cycle power supply. Each equipment is capable of furnishing a maximum undistorted power output of 15 milliwatts to each of one to twenty pairs of 600-ohm (impedance) telephone receivers connected in parallel or equivalent load.

(3) Each receiver unit consists of two sub-assemblies which are bolted together and housed in a single cabinet. One of these sub-assemblies contains a preselector (r-f) unit; the other sub-assembly houses the intermediate-frequency/audio-frequency (i-f/a-f) unit. The i-f/a-f units (except for an a-f band-pass filter) are the same for both equipments.

(4) The preselector unit contains the controls and circuits necessary for selection of the desired radio frequency signal and for heterodyning this signal down to the intermediate frequency. The i-f/a-f unit contains the circuits for amplification and demodulation of the intermediate frequency, and delivers suitable audio output for telephone reception. This i-f/a-f unit also contains controls for the cw oscillator, automatic volume control (a.v.c.), output limiter and other features of the equipment described in Section IV, Theory of Operation.

NOTE

In the following discussion the component parts of the Model RBB preselector unit have been assigned symbol designations in the group 100 - 199, and the Model RBC preselector unit symbol designations in the group 200 - 299. Since the i-f/a-f sections of both equipments are identical, only one symbol designation group has been assigned to that section (300 - 399). When discussing the preselector sections, where corresponding similar units are used in both sections, the symbol designation group 100 - 199 will indicate a unit from the RBB preselector section, and the symbol designation group 200 - 299 will indicate a unit from the RBC preselector section.

b. PRESELECTOR (R-F) UNIT.—

(1) The preselector units of the Models RBB/RBC Radio Receivers are similar in construction, employing the same front panel arrangement except for frequency calibration (see Figure 1-3). The two preselector units (because of their different frequency coverages) differ as to tube complement, coil boxes, coil box connections, and antenna connections.

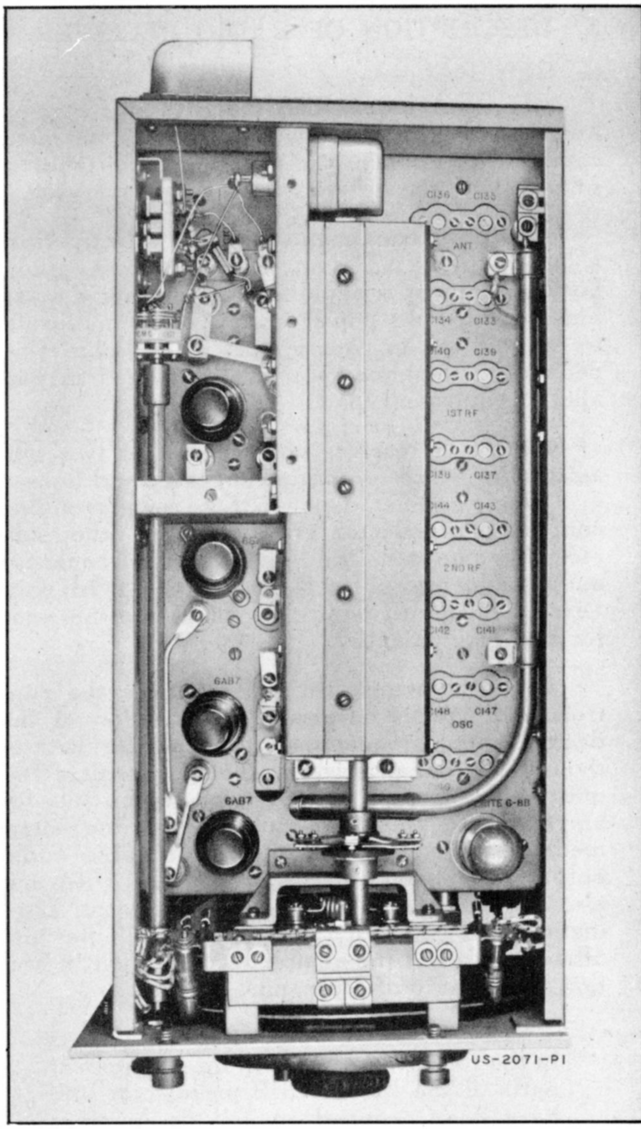


Figure 1-3 — Model RBB Radio Receiver, Preselector Unit Chassis (Top View)

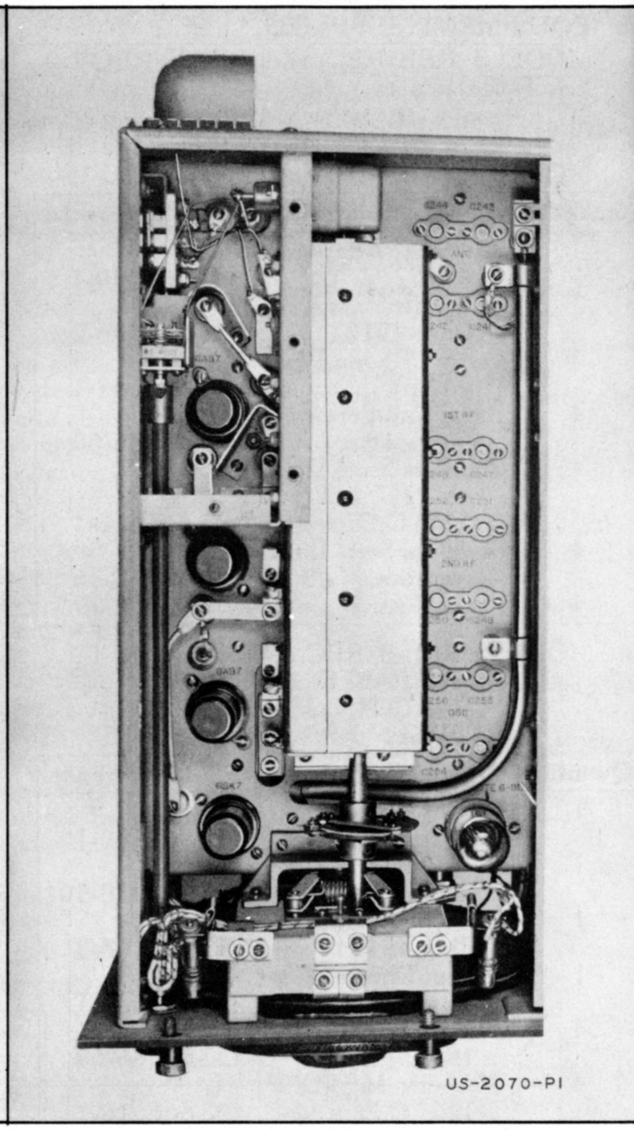


Figure 1-4 — Model RBC Radio Receiver, Preselector Unit Chassis (Top View)

(2) The front panel contains the various controls and knobs that are necessary for proper operation of the equipment. In addition, the front panel and chassis assembly support the tuning drive and band switch mechanism, a five-gang tuning capacitor (C149 or C257), four individually removable coil units, vacuum tubes, and circuit elements for the antenna input stage, two r-f stages, first detector, and heterodyne oscillator. Removable cover plates are provided for access to shielded parts.

NOTE

The tuning drive band switch mechanism and the tuning capacitor (except for temperature coefficient) are the same for both units.

(3) The tuning drive and band switch mechanism is mounted directly behind the front panel (see Figures 1-3 and 1-4). The tuning drive operates the 5-gang variable capacitor (C149 or C257) through a splitgear reducing mechanism, and drives an indicating dial which is calibrated directly in frequency as well as an arbitrary 0-1000 division scale. The band switch drive, incorporated with the tuning mechanism, drives the band switch through a reducing gear. The switch has four positions corresponding to the four frequency bands employed. This switch also operates a masking device (N101 or N201) over the tuning dial so that only the frequency calibration corresponding to the band selected by the particular band switch setting is visible. The 0-1000 division scale on the tuning dial is visible at all times. A detent mechanism, incorporated with the

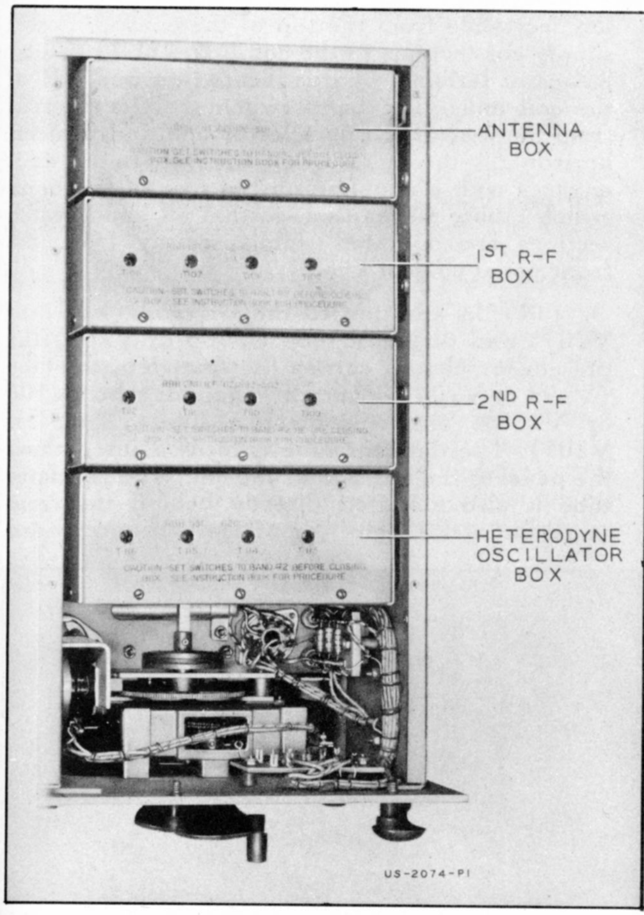


Figure 1-5 — Model RBB Radio Receiver, Preselector Unit Chassis (Bottom View)

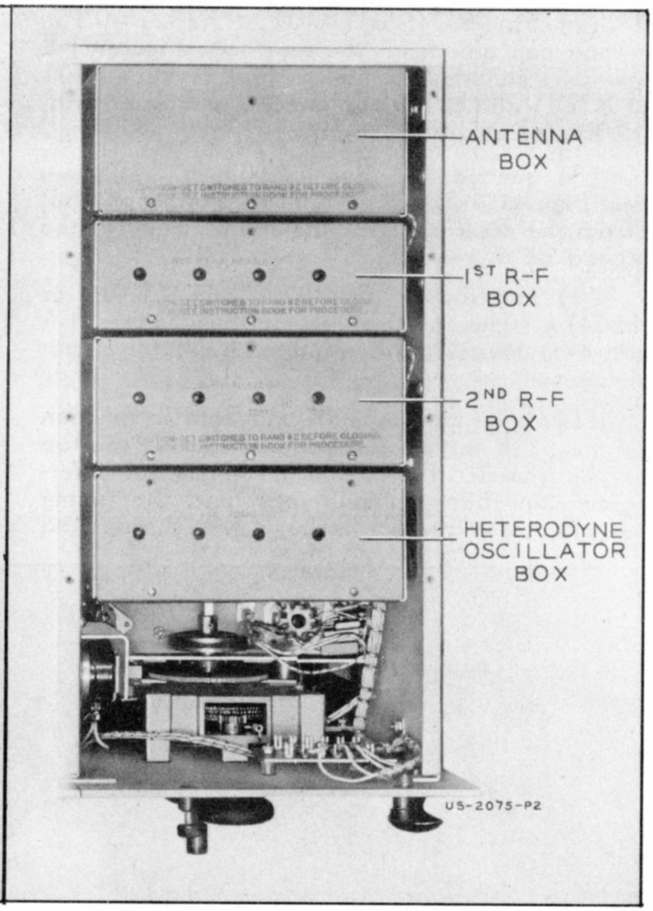


Figure 1-6 — Model RBC Radio Receiver, Preselector Unit Chassis (Bottom View)

band switch drive, locates the switch setting in each of its four positions.

(4) The tuning capacitor (C149 or C257), with its enclosing shield, is mounted on the upper surface of the chassis. Openings with snap covers are provided on the sides of the unit for inspection purposes. Normally this capacitor unit does not require any servicing, and great care should be exercised in handling, so as not to disturb its precision alignment.

(5) See Figures 1-5 and 1-6. On the bottom of the chassis are mounted the four coil unit assemblies (A101 to A104 or A201 to A204), readily removable for servicing. These units contain the circuit elements (exclusive of the tuning capacitor) of the antenna stage, r-f amplifier stages, and heterodyne oscillator, a separate unit being employed for each stage.

(6) Antenna Box (A101 or A201) — 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 (preceding the first r-f tube V101 or V201). The r-f input is fed into the preselector circuit by means of the concentric jack (J101 or J201) located at the rear of the preselector unit (see Figure 1-7). This jack connects to the terminal board TB-7 (E105; RBB) or TB-6 (E209; RBC) which has link connectors for adapting conditions shown in Figure 2-4.

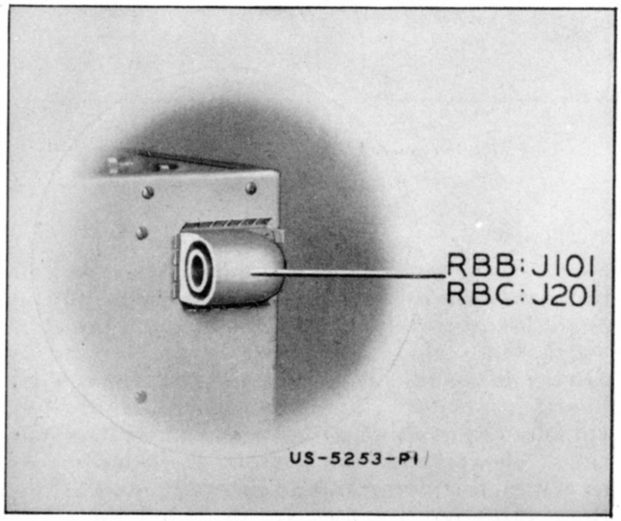


Figure 1-7 — Models RBB/RBC Radio Receivers (Rear Section Showing J101 or J201)

(7) First R-F Box (A102 or A202) — The second coil unit from the rear (see Figures 1-5 and 1-6) contains the first r-f tube socket (X101 or X201) and circuit components associated with the first r-f stage.

(8) Second R-F Box (A103 or A203) — See Figures 1-5 and 1-6. The third coil unit (from the rear) contains the components for the second r-f stage.

(9) Heterodyne Oscillator Box (A104 or A204) — The fourth coil unit (see Figures 1-5 and 1-6) houses the heterodyne oscillator circuit elements.

(10) The coil units are mounted in position by means of screws that project through the top of the chassis. Tubes and terminals for interconnections between coil units, and the tuning capacitor also project through the chassis and are accessible from the top of the chassis. Power supply connections to the coil boxes are made by means of terminal boards located on one side of the coil units. The band switch shaft is inserted from the rear of the preselector unit and projects horizontally through the coil units where the shaft engages with a coupling on the rear of the band switch tuning mechanism, so that all band switch sections are operated simultaneously from the front panel control knob.

(11) In addition to the r-f tube (V101 or V201) and oscillator tube (V103 or V203) the preselector chassis carries the first detector tube (V104 or V204), a current regulator tube (V106 or V206), and a protective tube (V105 or V205). The detector tube is located just behind the panel to the left side of the unit. The regulator tube is also mounted directly behind the front panel but at the right side of the unit and is used

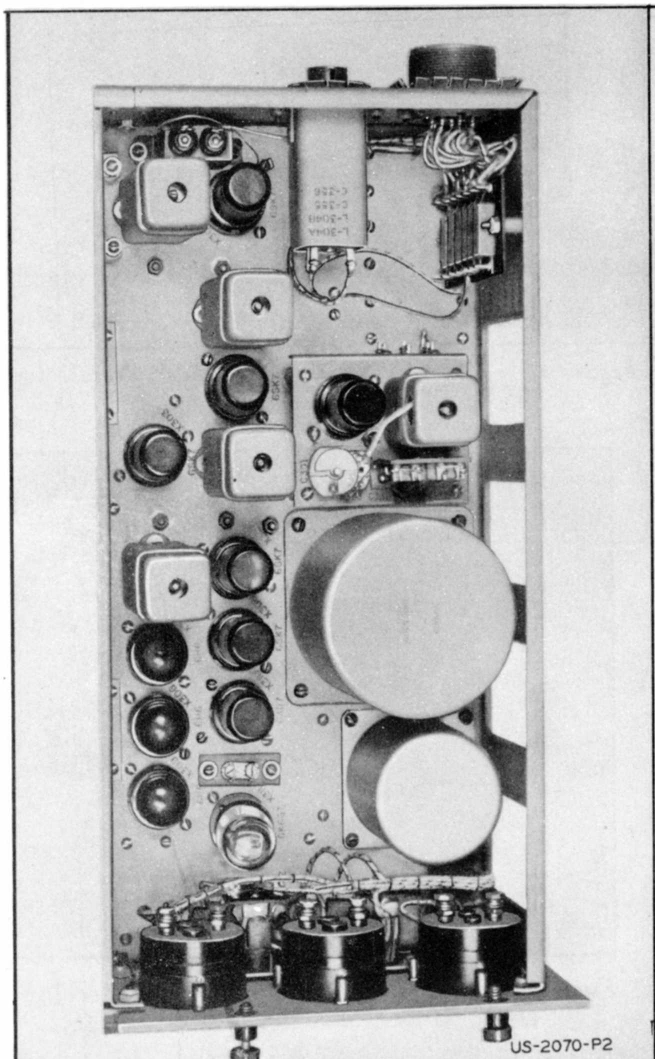


Figure 1-8 — Models RBB/RBC (only) or RBB-1/RBC-1 (up to Serial No. 1,000) Radio Receivers, I-F/A-F Unit Chassis (Top View)

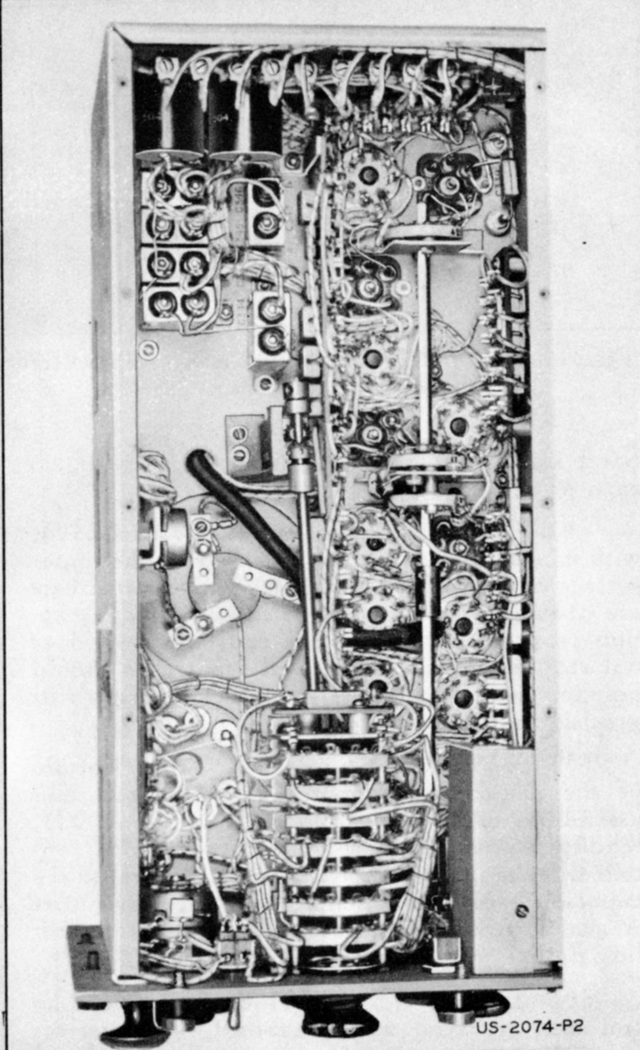


Figure 1-9 — Models RBB/RBC (only) or RBB-1/RBC-1 (up to Serial No. 1,000) Radio Receivers, I-F/A-F Unit Chassis (Bottom View) to regulate the heterodyne oscillator heater supply. The protective tube, used to protect the inout circuits from high r-f voltages, is located at the rear of the tuning capacitor and is enclosed by a small shield.

(12) A shielded compartment is located on the top of the chassis in the left rear corner. This compartment encloses the input circuits and first r-f tube (V101 or V201). A removable cover, fastened with captive thumbscrews, is provided for access to the enclosed parts. The antenna connection is brought into this compartment through a jack (J101 or J201) located at the rear of the preselector unit (see Figure 1-7). A small terminal board TB-7 (E105; RBB) or TB-6 (E209; RBC), located in this compartment, provides a means of 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 boara is accessible through the left side of the preselector unit by removing the small cover plate.

(13) The output of the preselector unit is connected to the i-f/a-f amplifier unit by means of a terminal located on the top of the preselector unit chassis in the right-rear corner. Power connections to the r-f unit are made through a cable permanently connected to the preselector unit and terminating at a terminal board (TB-308) on the bottom of the i-f/a-f amplifier unit chassis.

c. I-F/A-F UNIT.—

(1) The i-f/a-f units are identical for both Models RBB and RBC equipments except for the audio filter unit. This i-f/a-f unit contains a three-stage variable selectivity i-f amplifier, second detector, noise limiter, audio band-pass filter, cw oscillator, automatic volume control (a.v.c.), silencer circuit, and a two stage audio amplifier.

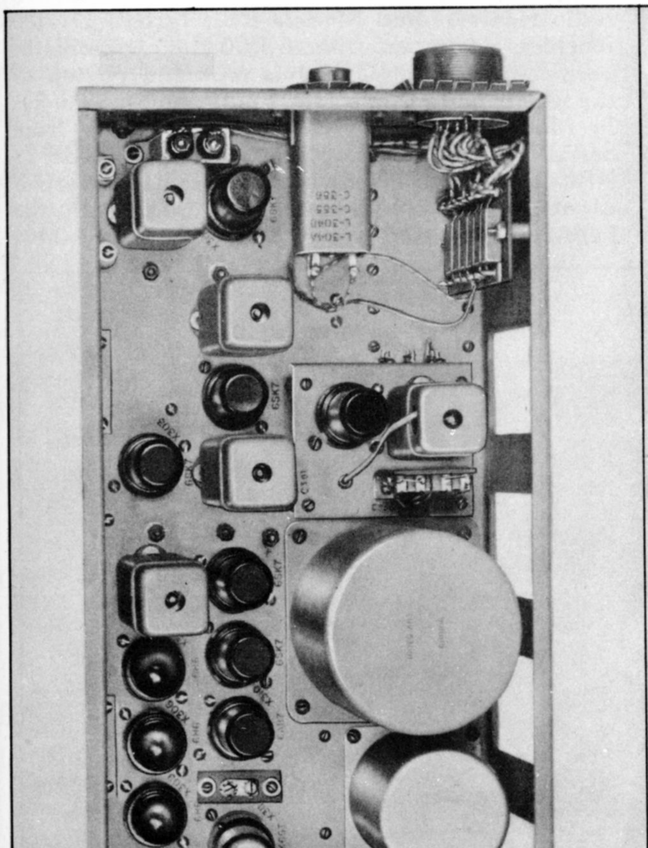


Figure 1-10 — Models RBB-1/RBC-1 (above Serial No. 1,000) or RBB-2/RBC-2 Radio Receivers, I-F/A-F Unit Chassis (Top View)

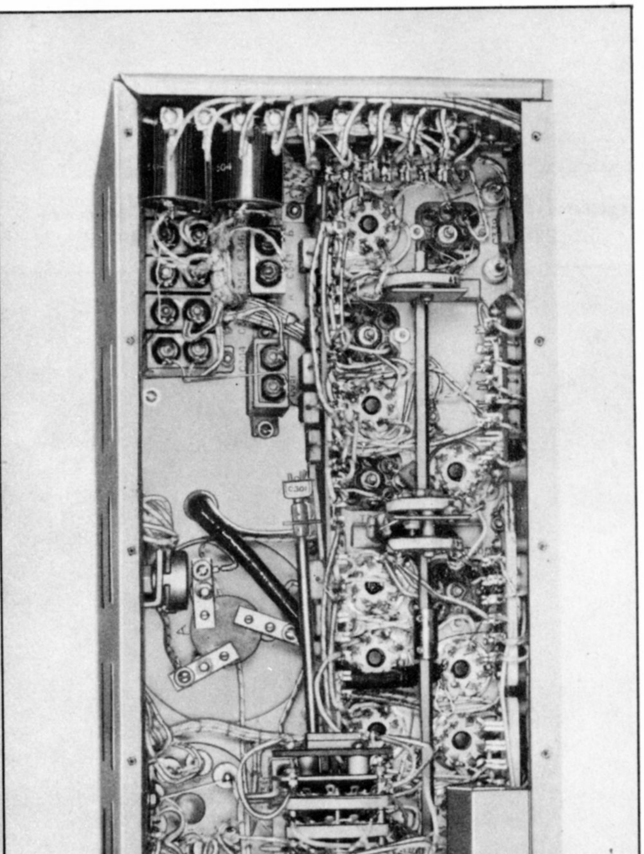


Figure 1-11 — Models RBB-1/RBC-1 (above Serial No. 1,000) or RBB-2/RBC-2 Radio Receivers, I-F/A-F Unit Chassis (Bottom View)

(2) The chassis supports circuit components and wiring is underneath the chassis (see Figures 1-8, 1-9, 1-10, and 1-11). All tubes are accessible from the top of the chassis when the receiver unit is partially withdrawn from the cabinet.

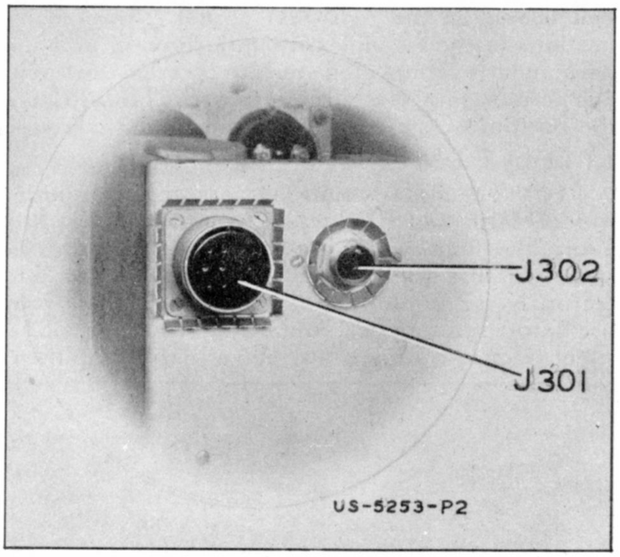


Figure 1-12 — Models RBB/RBC Radio Receivers (Rear Section Showing J301, J302)

(3) The rear of the unit (upper left-hand corner as viewed from the back) carries the power supply receptacle (J301) for interconnection with the power unit. Adjacent to the power supply receptacle is the audio output receptacle (J302). See Figure 1-12.

(4) As previously mentioned, an audio band-pass filter is employed in the i-f/a-f unit. This filter is mounted on top of the chassis, and carries a terminal board which projects through to the bottom of the chassis for connection into the circuit. In case it is desired to interchange i-f/a-f units between RBB and RBC equipments, it will be necessary to remove the band-pass filter unit and substitute the correct filter:
RBB: Band-pass filter L-301-1, CRV-53090
RBC: Band-pass filter L-301-2, CRV-53091

(5) The cw oscillator is constructed in the form of a sub-assembly. In all Models RBB/RBC radio receivers and Models RBB-1/RBC-1 radio receivers up to Serial No. 1,000 the cw oscillator vernier capacitor (C301) is mounted on top of the i-f/a-f unit chassis (see Figures 1-8 and 1-9). In Models RBB-1/RBC-1 radio receivers from Serial No. 1,001 and up, and all Models RBB-2/RBC-2 radio receivers the cw oscillator vernier capacitor (C301) is mounted underneath the i-f/a-f unit chassis (see Figures 1-10 and 1-11).

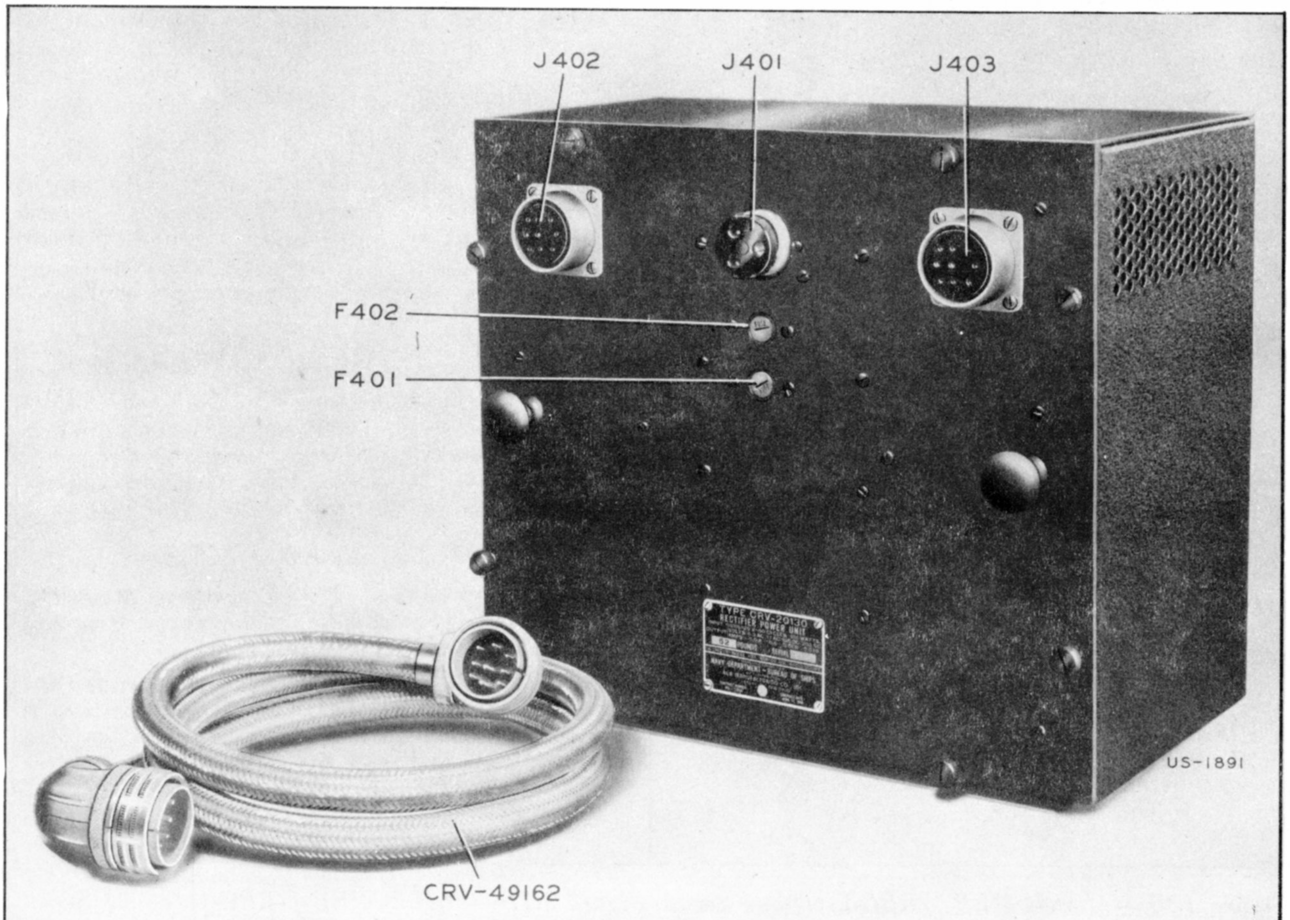


Figure 1-13 — Rectifier Power Unit, Navy Type CRV-20130 (Front View)

SECTION II – INSTALLATION

<u>SECTION II – INSTALLATION</u>

6. DESCRIPTION OF RECTIFIER POWER UNIT.

a. CONSTRUCTION.—

(1) The Rectifier Power Unit, Navy Type CRV-20130 is completely enclosed in a black wrinkle finished metal cabinet. The cabinet is arranged for permanent mounting, the panel and chassis assembly being removable for servicing or tube replacements. The panel and chassis assembly carries all circuit components and is ruggedly constructed with a protective frame around the back and sides (see Figure 1-13). The assembly is held in the cabinet by means of thumbscrews attached to the front panel, and spring stops are provided to prevent the chassis from accidentally falling out of the cabinet when partially withdrawn.

(2) Two knobs are provided on the front panel of the unit to facilitate withdrawal of the chassis. The power input and output receptacles are mounted near the top of the front panel.

b. FUSES.—

(1) Both sides of the a-c line within the power unit are provided with fuses, rated at 3 amperes. These fuses are accessible on the front panel of the unit. The a-c power supply plug (P401) should be removed from its receptacle when replacing these fuses.

c. The power requirements and average ratings for the rectifier power unit are as follows:
Normal load — one receiver
Input:

110-/115-/120-volts
55-65 cycles, single phase a-c
100 watts
Power factor 96%

Output:

6.3 v a-c	5.4 amps	
17.0 v a-c	0.6 amps	
105.0 v d-c	5.0 ma	(Regulated)
200.0 v d-c	78.0 ma	

Emergency load — two receivers

Input:
110-/115-/120-volts
55-65 cycles, single phase a-c
160 watts
Power factor 97%

Output:

5.5 v a-c	10.4 amps	
16.5 v a-c	1.2 amps	
105.0 v d-c	10.0 ma	(Regulated)
175.0 v d-c	133.0 mc.	

7. ACCESSORIES.

a. PLUG ADAPTER KIT.—

(1) When the Models RBB-2/RBC-2 radio receivers are shipped a Plug Adapter Kit, Navy Type -49509, is supplied (see Tables 1-6 and 1-7). These kits are for use on receiver installations using Armored Cable TTHFA-1 (two conductors), Bureau of Ships Specification 15 C-1 (INT). For Models RBB/RBC and RBB-1/RBC-1 radio receivers the Plug Adapter Kit, Navy Type -49509, is supplied under a separate contract. For installation instructions see Section II, Paragraph 3h.

b. PANORAMIC COUPLING KIT.—

(1) The Panoramic Coupling Kit, Navy Type CLP-10335 (supplied under a different contract), is intended to adapt any RBB/RBC series of radio receiving equipment for use with a RBU/RBV Panoramic Adapter Unit. When installed in a Model RBB/RBC Radio Receiver (as described in RCA Instruction Book—38359), the coupling kit provides the means for feeding signals to the RBU/RBV Panoramic Adapter Unit. The kit has been designed for field installation.

c. CONCENTRIC LINE PLUG.—

(1) When a concentric line is used on the equipment a Concentric Plug, Navy Type—49121 (see Tables 1-6 and 1-7) is plugged into r-f input jack J101 or J201.

d. ANTENNA ADAPTER.—

(1) When a single wire feed type antenna is used the antenna adapter Navy Type -49152 (see Tables 1-6 and 1-7) is plugged into the r-f input jack J101 or J201. The binding post of the adapter provides a means of terminating the lead-in of the antenna.

e. CRYSTAL CONTROL ADAPTERS.—

(1) The Navy Types CRV-35047 and CRV-35048 crystal control adapter units are designed to provide two crystal controlled operating frequencies in the RBB and RBC receivers respectively. See IB-38308, NAVSHIPS 900,530.

f. RACK MOUNTING ADAPTORS.—

(1) Navy Type -10348 rectifier mounting shelf provides for mounting the rectifier power unit in a standard relay rack.

(2) Navy Type -10350 cabinet provides for mounting the Model RBB/RBC Series receivers in a standard relay rack and replaces the cabinet which is furnished with the receiver.

SECTION II – INSTALLATION

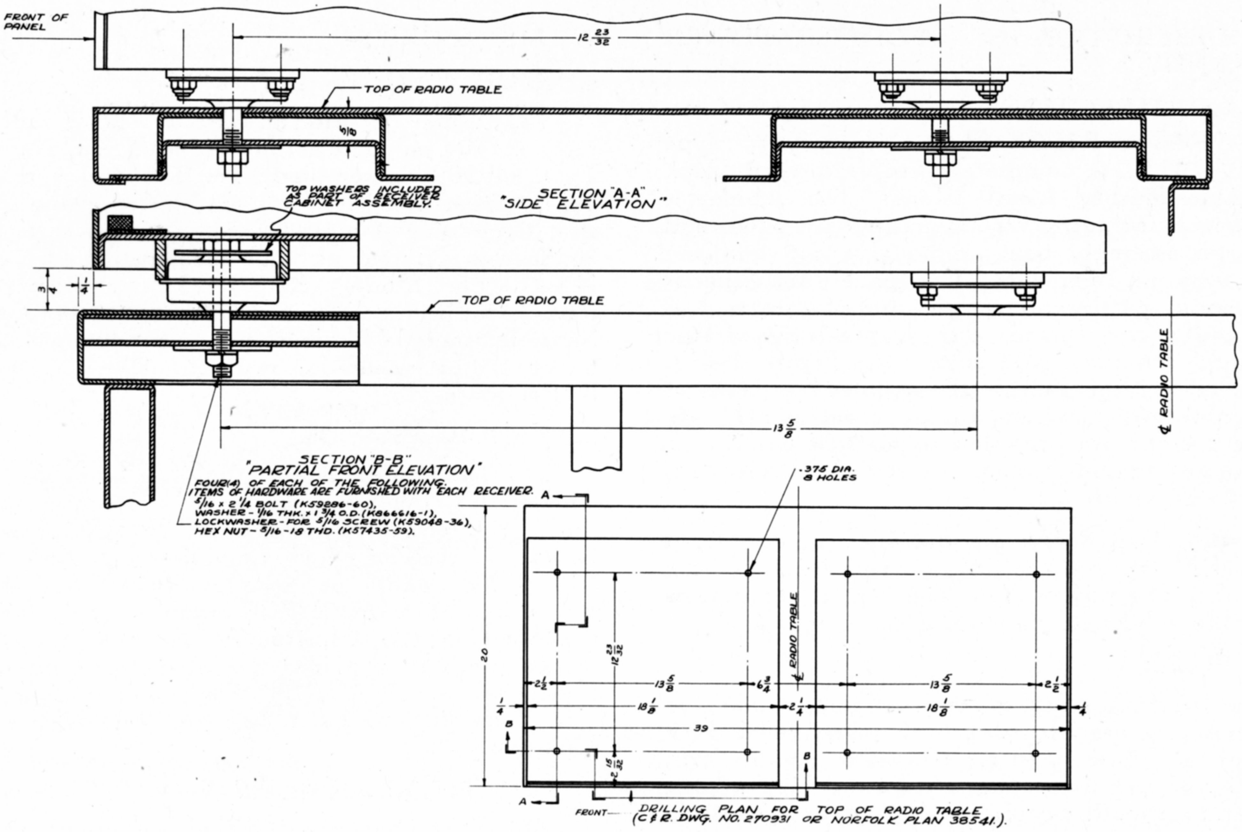


Figure 2-1 — Models RBB/RBC Radio Receivers, Mounting Diagram (PX-273649)

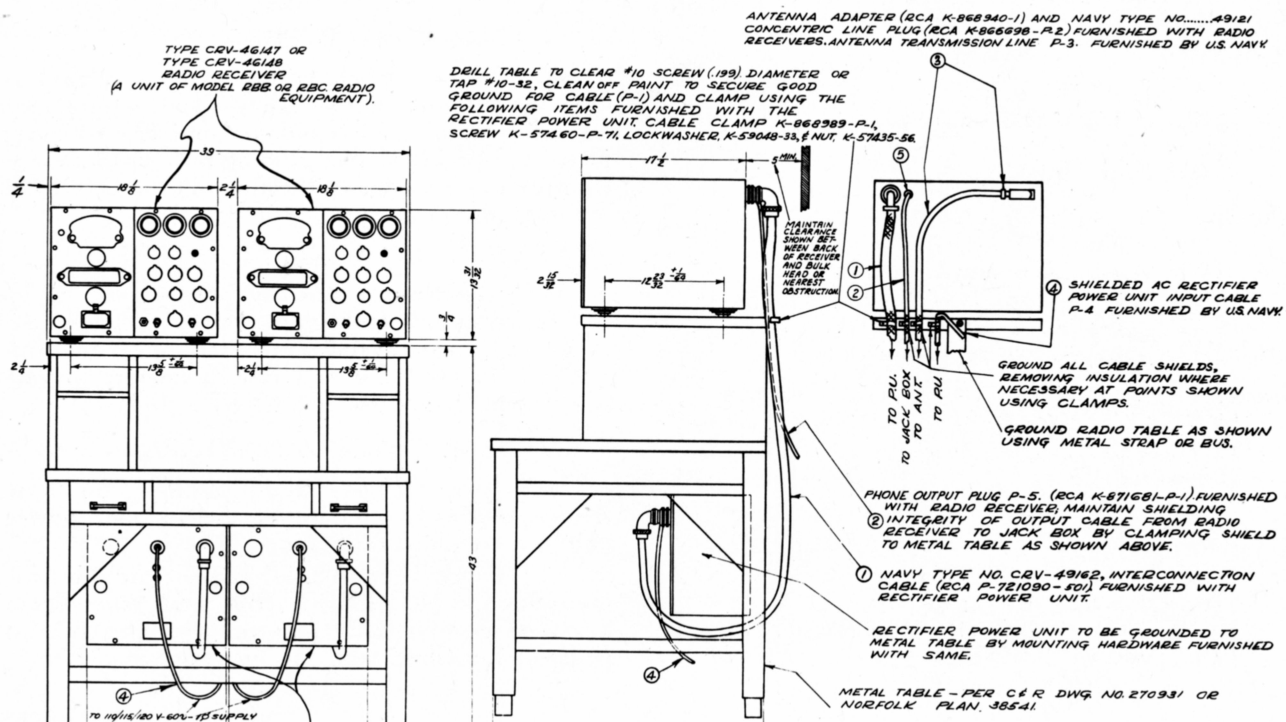


Figure 2-2 — Models RBB/RBC Radio Receivers and Rectifier Power Unit, Installation Diagram (PX-273687)

SECTION II
INSTALLATION

1. RADIO RECEIVER.

a. GENERAL.—

(1) The receiver units of the Models RBB and RBC Radio Receiving Equipments are to be mounted on top of an operating table using the rubber shock absorber mountings (A105, A106 or A205, A206) supplied with the receiver unit cabinet. The location of the receiver units on the operating table may be varied to suit particular installation requirements. Frequent reference should be made to the installation drawings, Figures 2-1 and 2-2.

(2) Remove the receiver chassis from its cabinet. This is accomplished by disengaging the thumbscrews located around the edge of the panel. These thumbscrews are of the captive type and remain in the front panel when the chassis is withdrawn.

(3) Take hold of the round pull-knobs provided on the front panel and carefully withdraw the chassis. Note that the chassis strikes a pair of stops when partially withdrawn. These stops are released by pressing on the stop arms, through holes on each side of the chassis. In case the equipment has been previously installed, it is necessary to remove the cables from the receptacles at the rear of the unit before withdrawing the chassis.

CAUTION

Set the chassis on a flat surface free from obstructions which might damage shielding or components.

b. DRILLING.—

(1) Drill the top of the operating table according to the layout dimensions shown in Figures 2-1 and 2-2.

IMPORTANT

Provide a clearance of at least five inches from the rear of the receiver units to the bulkhead or nearest obstruction, to permit removal of cables and provide movement clearances in cases of severe shock.

c. MOUNTING.—

(1) Mount the cabinet in place using the bolts provided. As shown in Figure 2-1, the bolts are inserted through the shock mounts, using one large washer on top of the shock mount and another on the underside of the table.

(2) Insert the proper tubes in their respective sockets (see Figure 2-3). Be sure to press down firmly on these tubes. Tube locations are also indicated by chassis markings adjacent to the tube sockets. All tubes are accessible from the

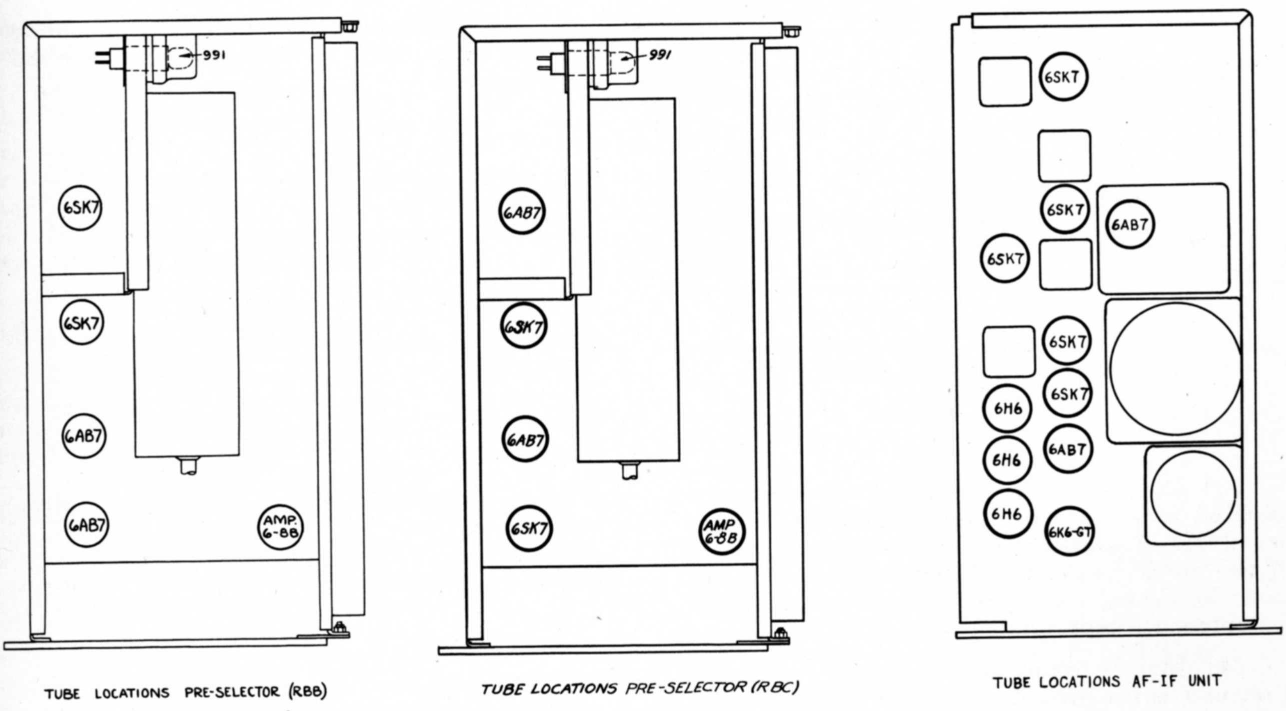


Figure 2-3 — Models RBB/RBC Radio Receivers, Tube Locations (MX-244728, MX-244729, MX-244727) top of the receiver unit chassis. Note that the first r-f tube (V101 or V201) and protective tube (V105 or V205) are located in shielded compartments at the rear of the unit.

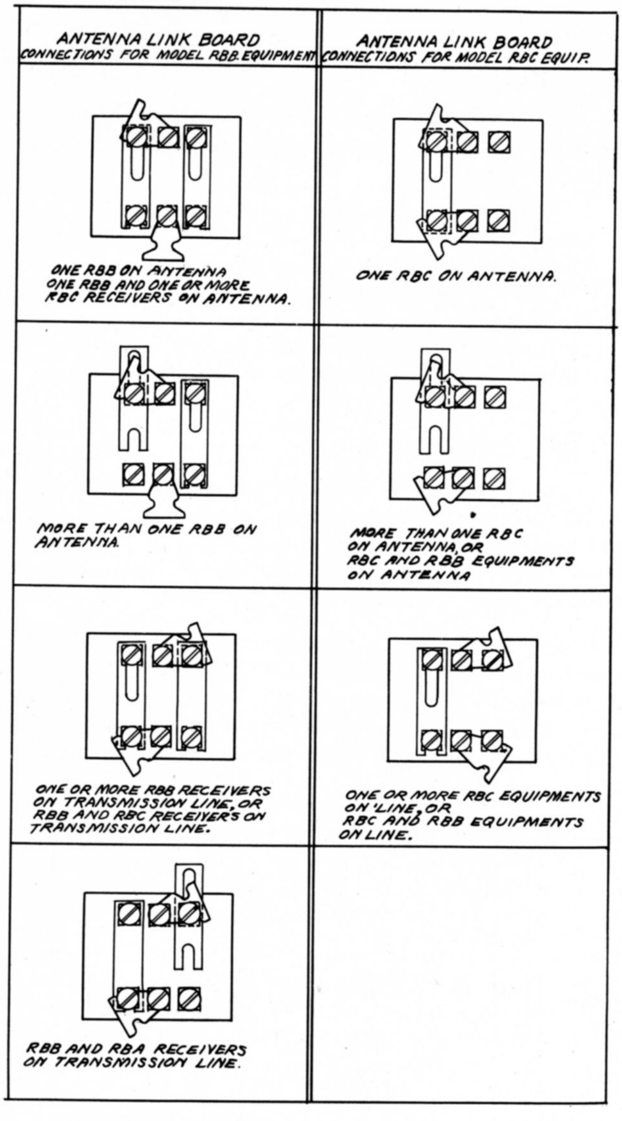


Figure 2-4 — Models RBB/RBC Radio Receivers Antenna Link Board Connections (MX-244726)

(3) Connect the antenna link connectors as required for the particular installation (see Figure 2-4). The antenna link connection board (E105 or E209) is located beneath a small shield cover on the side of the receiver unit chassis near the antenna receptacle (J101 or J201).

(4) Make certain that the proper band-pass filter unit is installed in the receiver i-f/a-f unit:

MODEL RBB. . . . . Band-pass filter CRV-53090
MODEL RBC. . . . . Band-pass filter CRV-53091

(5) Place the receiver unit chassis into its cabinet. To insure proper shielding for the equipment it is necessary that the panel thumbscrews be turned up tight.

2. RECTIFIER POWER UNIT.

a. GENERAL.—

(1) The rectifier power unit is designed for mounting underneath an operating table without shock mounts. (Refer to Figure 2-6.) The unit may also be mounted on the surface of an operating table through holes in the mounting channels attached to the bottom of the case. These channels extend ½-inch below the edges of the case in order to provide ventilation for the unit.

(2) Remove the chassis from its cabinet by loosening the panel thumbscrews and withdrawing the chassis. When partially withdrawn, the chassis will strike stops which are released by pressing on the spring catches accessible through holes on each side of the chassis frame. If the equipment has been previously set up, the cables should be removed from the panel receptacles before the chassis is removed.

b. DRILLING.—

(1) Drill the operating table according to the lay-out shown on Figure 2-6. Section "AA" on this drawing shows drilling dimensions for the top of the rectifier power unit cabinet. The holes in the top of the cabinet must be located within the area of the reinforcing strips as shown in the top view.

c. MOUNTING.—

(1) After drilling the indicated mounting holes, the cabinet may be bolted in place with the bolts furnished.

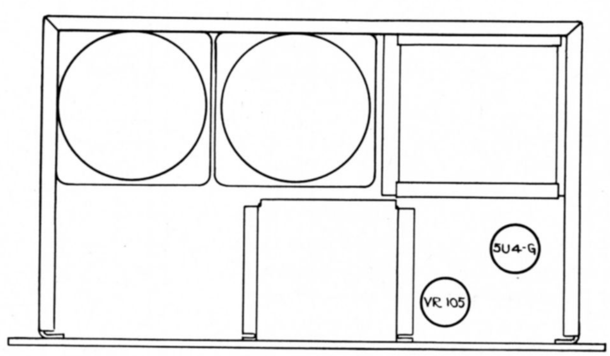


Figure 2-5 — Rectifier Power Unit, Tube Locations (MX-244730)

(2) Insert the tubes in their proper sockets (see Figure 2-5). Make certain that the tubes are pressed down firmly. Tube locations are desig-

SECTION III – OPERATION

SECTION III
OPERATION

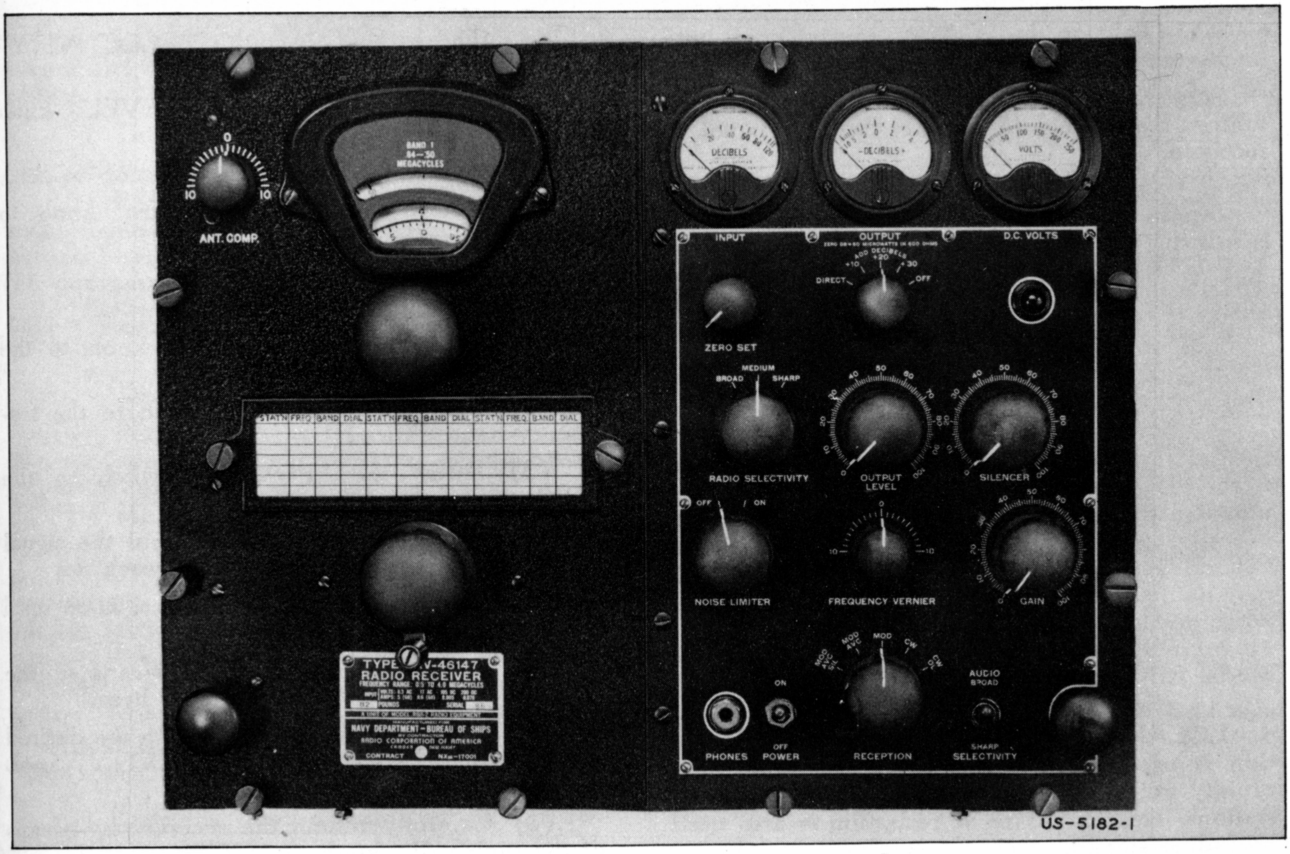


Figure 3-1 — Models RBB/RBC Radio Receivers (Front Panel)

1. GENERAL.

a. Before applying power to the equipment it is advisable to check over the installation instructions to insure that external wiring, power supply, antenna output, and grounding connections have been correctly made. Connect one pair of headphones into the panel jack (J303) marked "PHONES" or to the receiver output circuit connected to the receptacle (J302) in the rear of the i-f/a-f unit.

b. The "POWER" switch for the rectifier power unit is located on the panel of the Models RBB/RBC radio receivers, and operates to make or break the a-c supply circuit to the power unit through the interconnecting cable.

c. For the emergency condition where two receiver units are operated from a single power unit, the "POWER" switches on the respective receiver units are connected in parallel through the interconnecting cables, so that power is thrown on by throwing either switch to the "ON" position. To cut off the power supply, both switches must be thrown "OFF."

2. CW TELEGRAPH (CODE).

a. PRELIMINARY CONTROL SETTINGS.—

(1) Turn the "ADD DECIBELS" knob to the "OFF" position.

(2) Turn the "RADIO SELECTIVITY" knob to the "BROAD" position.

(3) Turn the "NOISE LIMITER" knob to the "ON" position.

(4) Throw the "AUDIO SELECTIVITY" switch to the "BROAD" position.

(5) Rotate the "OUTPUT LEVEL" knob to zero.

(6) Rotate the "SILENCER" knob to zero.

(7) Rotate the "GAIN" control knob to zero.

b. DISTANT RECEPTION.—

(1) Turn the "RECEPTION" knob to the "CW" position.

(2) Turn the band switch knob to the frequency band desired.

(3) Throw the "POWER" switch to the "ON" position.

(4) Rotate the tuning knob until the dial indicates the frequency of the desired station.

(5) Turn up the "GAIN" control knob until background noise can be heard.

(6) Retune the receiver by means of the tuning dial knob, until the desired signal is received.

(7) Adjust the "FREQUENCY VERNIER" knob until a note of medium pitch (1000 cycles) is heard.

(8) Throw the "AUDIO SELECTIVITY" switch to "SHARP."

(9) Readjust the "FREQUENCY VERNIER" knob until the loudest signal possible is heard.

c. Better distant reception may be had if a signal at the extreme high frequency end of the band is tuned in first, and the "ANT. COMP." knob is adjusted to bring in the signal at its greatest volume. If no signal is available, the adjustment may be made for maximum noise output. For this adjustment, set the receiver dial at 860 for the Model RBB radio receiver and at 870 for the Model RBC radio receiver.

d. LOCAL RECEPTION.—This type of reception is used when the signal strength changes rapidly, such as communication with different stations, etc. This type of reception is also used on fading signals.

(1) Turn the "RECEPTION" knob to the "CW-OL" position.

(2) Turn the band switch knob to the frequency band desired.

(3) Throw the power switch to "ON."

(4) Tune the receiver, by means of the tuning dial knob, to the frequency of the desired station.

(5) Turn the "OUTPUT LEVEL" knob to full (100) setting.

(6) Turn up the "GAIN" control knob until the weakest signal can be heard.

(7) Turn back the "OUTPUT LEVEL" knob until the volume begins to decrease on the weak signal. Leave the knob in that position.

(8) Throw the "AUDIO SELECTIVITY" switch "SHARP."

(9) Adjust the "FREQUENCY VERNIER" knob until the loudest note is heard.

3. MCW TELEGRAPH (TONE).

a. PRELIMINARY CONTROL SETTINGS.—

(1) Turn the "ADD DECIBELS" knob to the "OFF" position.

(2) Turn the "RADIO SELECTIVITY" knob to "BROAD."

(3) Turn the "NOISE LIMITER" knob to "ON."

(4) Throw the "AUDIO SELECTIVITY" switch to "BROAD."

(5) Rotate the "OUTPUT LEVEL" knob to zero.

(6) Rotate the "SILENCER" knob to zero.

(7) Rotate the "GAIN" control knob to zero.

b. When the above operation (Paragraph 3a) has been completed, proceed as follows:

(1) Turn the "RECEPTION" knob to the "MOD" position.

(2) Turn the band switch knob to the frequency band desired.

(3) Throw the "POWER" switch to the "ON" position.

(4) Rotate the tuning knob until the signal frequency of the desired station is reached.

(5) Turn up the "GAIN" control knob until background noise can be heard.

(6) Retune the receiver, by means of the tuning dial knob, until the signal is heard.

(7) If other signals interfere with the desired signal, turn the "RADIO SELECTIVITY" knob to "MEDIUM" or "SHARP."

(8) Carefully retune the receiver by means of the tuning dial knob.

(9) Readjust the "GAIN" control knob until a "comfortable" noise level is reached.

(10) If noise interferes with any 1000-cycle signal, throw the "AUDIO SELECTIVITY" switch to "SHARP."

4. VOICE.

a. PRELIMINARY CONTROL SETTINGS.—

(1) Turn the "ADD DECIBELS" knob to the "OFF" position.

(2) Turn the "RADIO SELECTIVITY" knob to "BROAD."

(3) Turn the "NOISE LIMITER" knob to "ON."

(4) Throw the "AUDIO SELECTIVITY" switch to "BROAD."

(5) Rotate the "OUTPUT LEVEL" knob to zero.

(6) Rotate the "SILENCER" knob to zero.

(7) Rotate the "GAIN" control knob to zero.

b. LOCAL RECEPTION.—

(1) Turn the "RECEPTION" knob to the "MOD-AVC" position.

(2) Turn the band switch knob to the frequency band desired.

(3) Throw the "POWER" switch to the "ON" position.

(4) Rotate the tuning control knob until the tuning dial indicates the frequency of the desired station.

(5) Turn up the "OUTPUT LEVEL" knob until background noise is heard.

(6) Retune the receiver by means of the tuning control knob, until the desired signal frequency (station) is heard.

(7) Readjust the "OUTPUT LEVEL" knob until a "comfortable" noise level is reached.

(8) If excessive noise occurs, turn the "RADIO SELECTIVITY" knob to "MEDIUM."

(9) Retune the receiver, if necessary, for best reception. The tuning control should be adjusted to produce maximum deflection of the "INPUT METER" indicator.

c. DISTANT RECEPTION. — When receiving intermittent voice transmissions and the transmitting station goes off the air between transmissions use the silencing feature of the subject equipment. This feature provides for silencing the receiver when no signal is being received.

(1) Turn the "RECEPTION" knob to the "MOD-AVC-SIL" position.

(2) Turn the band switch knob to the frequency band desired.

(3) Throw the "POWER" switch to "ON."

(4) Rotate the tuning control knob until the tuning dial indicates the frequency of the desired station.

(5) Turn up the "OUTPUT LEVEL" knob until background noise is heard, then turn up "SILENCER" knob until the point is reached at which the noise disappears.

(6) Retune the receiver by means of the tuning control, until the desired signal frequency (station) is heard. When the "SILENCER" knob is in the position described in Paragraph 4c(5), only signals loud enough to over-ride the noise will be heard.

NOTE

When the signal is weak and can barely be heard above the noise level, it may be desirable to locate the signal with the "SILENCER" knob at zero. Then set the "SILENCER" knob at the point where the noise is taken out when the transmitting station is off the air. The "SILENCER" control may be critical and a division or two may make a big difference when the signal strength is not much greater than the noise level.

d. Better distant reception may be had if a signal at the extreme high frequency end of the band is tuned in first and the "ANT. COMP." knob is adjusted to bring in the signal at its greatest volume. If no signal is available the adjustment may be made for maximum noise output. For this adjustment, set the receiver dial at 860 for the Model RBB and at 870 for the Model RBC.

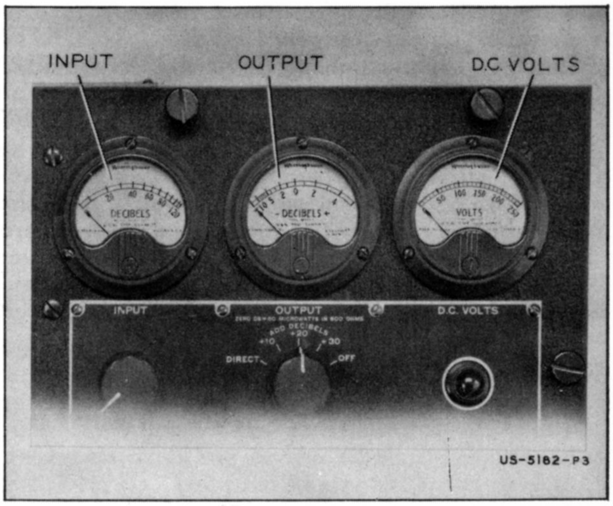


Figure 3-2 — Models RBB/RBC Radio Receivers (Meter Designations)

5. METER DESIGNATIONS.

a. INPUT METER.—

(1) This meter (M302) is operative on the "MOD-AVC-SIL" position of the "RECEPTION" knob. When the "INPUT METER" is used as a tuning meter, the receiver should be tuned for maximum deflection of the meter indicator. This instrument is calibrated in decibels above a one microvolt reference, and indicates the approximate input signal level. For input level readings, operate the receiver with the "RADIO SELECTIVITY" knob in the "SHARP" position. Adjust the meter minimum reading to zero, by means of the "ZERO SET" knob, with the receiver tuned near the desired signal but with no signal input. Tune the signal to produce maximum deflection on the "INPUT METER" indicator. The meter reading then indicates the approximate signal input in decibels above one microvolt.

b. OUTPUT METER.—

(1) This meter (M303) is used to test and adjust the receiver. The "ADD DECIBELS" knob is left in the "OFF" position during normal operation. This instrument is connected to a separate winding on the output transformer (T301), and operates in conjunction with the output meter range switch designated, "ADD DECIBELS." The meter is calibrated in decibels referred to 60

microwatts. With the "ADD DECIBELS" range switch knob in the "DIRECT" position, zero db reading on the meter corresponds with 60 microwatts in 600-ohm loads at the receiver output terminal. This output level is used for purposes of test and operation in adjustment of the receiver for the condition of "STANDARD GAIN," which is the gain setting that produces 60 microwatts noise output in 600-ohm load with no signal input. The "ADD DECIBELS" switch operates in conjunction with a resistance network to provide four output ranges for the "OUTPUT" meter. A fifth position of the switch is provided to disconnect the meter from the circuit. The switch should normally be left in the "OFF" position to protect the meter from overload. The first, or "DIRECT," position of the switch is provided with a spring release for protection of the meter. In this position, as mentioned above, zero db on the meter indicates 60 microwatts receiver output in 600-ohm load. In the second position, zero db indicates 600 microwatts receiver output or an increase of 10 db. Similarly, in the third and fourth positions of the switch, zero db on the meter indicates 6 and 60 milliwatts receiver output respectively, or respective increases 20 and 30 db referred to a 60-microwatt level.

c. D.C. VOLTS.—

(1) This meter (M301) indicates the "B" supply voltage supplied to the i-f/a-f unit from the rectifier power supply. For normal operating conditions, the meter should indicate approximately 200 volts when the receiver is energized. For the emergency condition, where two receivers are operated from one rectifier power unit, the meter should indicate approximately 175 volts.

6. PILOT LAMP.

a. The pilot lamp (I301A), located on the i-f/a-f front panel, indicates when power is being supplied to the receiver. The pilot lamp is connected to the i-f/a-f unit tube heater circuit.

SECTION IV – THEORY OF OPERATION

SECTION IV
THEORY OF OPERATION

1. GENERAL.

a. The Models RBB/RBC radio receiving equipments are designed for five types of reception. A master switch (S304), designated "RECEPTION" on the receiver front panel enables the operator to select the various types of reception.

(1) The "MOD" position is generally employed when MCW (tone) reception is desired, although this position can also be used for voice. In this position the manual r-f sensitivity (volume) control (R361-A, B) is operative. This control is identified as "GAIN" on the receiver front panel.

(2) When the "RECEPTION" switch (S304) is in the "MOD-AVC" position, the manual r-f sensitivity control (volume controls R361-A, B) is disconnected whereas the manual audio gain control ("OUTPUT LEVEL," R363-A, B) is made operative. In addition, the automatic volume control circuit is utilized. This type of reception is generally used for voice.

(3) When the "RECEPTION" switch (S304) is in the "MOD-AVC-SIL" position, the circuit employs the same component parts used in the "MOD-AVC" position. In addition, the "SILENCER" control is made operative. This position is generally operated for reception of intermittent voice transmissions.

(4) The "CW" position is intended for telegraph reception. In this position the cw oscillator and "GAIN CONTROL" are connected to operate.

(5) When the "RECEPTION" switch (S304) is placed in the "CW-OL" position, the cw oscillator remains operative and the output limiter is connected. The "OUTPUT LEVEL" control (R363-B) is made operative and the "GAIN" control is again connected. This type of reception provides the equivalent of a.v c. action on cw signals and reduces noise interference by limiting noise peaks exceeding the signal output level. It is useful in cases of severe fading on cw reception.

(6) For all types of reception the antenna input (preselector), r-f, first detector, and heterodyne oscillator stages remain the same except for a.v.c. and "GAIN" control operation. See Block Diagrams, Figures 4-1 to 4-5. The r-f signal is received by the antenna and is fed into the antenna input (preselector) stage. The signal is then applied to the r-f stages, where it is amplified. The local oscillator signal frequency is fed into the first detector (mixer) and combines with the amplified r-f input. The resultant beat frequency of 400 KC is fed into the i-f stages and amplified.

(7) When the "RECEPTION" switch (S304) is in the "MOD" position, the i-f frequency of 400 KC is coupled to the second detector (see Figure 4-1). An audio voltage is developed in the second detector and is applied to the a-f stages where it is amplified. All audio stages employ negative feedback. The final a-f stage is coupled to the output stage; the audio output, in turn, is fed into the headphones.

(8) When the "RECEPTION" switch (S304) is in the "MOD-AVC" position, the antenna input (preselector), r-f, first detector, and oscillator stages remain unchanged, except that a.v.c. is applied to the r-f amplifiers. In this position, an automatic volume control (a.v.c.) circuit is connected (see Figure 4-2). The a.v.c. is coupled to the r-f amplifiers, final i-f stage, and the first a-f stage. This automatic gain control of the r-f signal eliminates use of the r-f sensitivity control (R361-A, B). The final i-f stage is coupled to the second detector. The audio voltage that is developed in the second detector is amplified by the a-f stages. The final a-f stage is coupled to the output stage.

(9) When the "RECEPTION" switch (S304) is in the "MOD-AVC-SIL" position, all the circuits discussed in the preceding paragraph (8) remain the same. In this position, however, a silencer circuit is added between the second detector and first audio stages (see Figure 4-3). This circuit functions to cut off receiver output for inputs below a predetermined level.

(10) When the "RECEPTION" switch (S304) is in the "CW" position, the antenna input (preselector), r-f, first detector, and heterodyne oscillator stages function the same as described in Paragraph (6) above. In this position, the cw oscillator is connected to operate (see Figure 4-4). The cw oscillator frequency is fed into the second detector (mixer). The resultant beat frequency of 1,000 cycles difference is coupled to the a-f stages where it is amplified. An audio band-pass filter circuit is located between the first and second audio stages. The amplified audio frequency (1,000 cycles) is fed to the output stage and in turn to headphones.

(11) In the "CW-OL" position, the cw oscillator remains operative and the output limiter is connected. In addition the "OUTPUT LEVEL" control (R363-B) and "GAIN" control (R361-A, B) are made operative (see Figure 4-5).

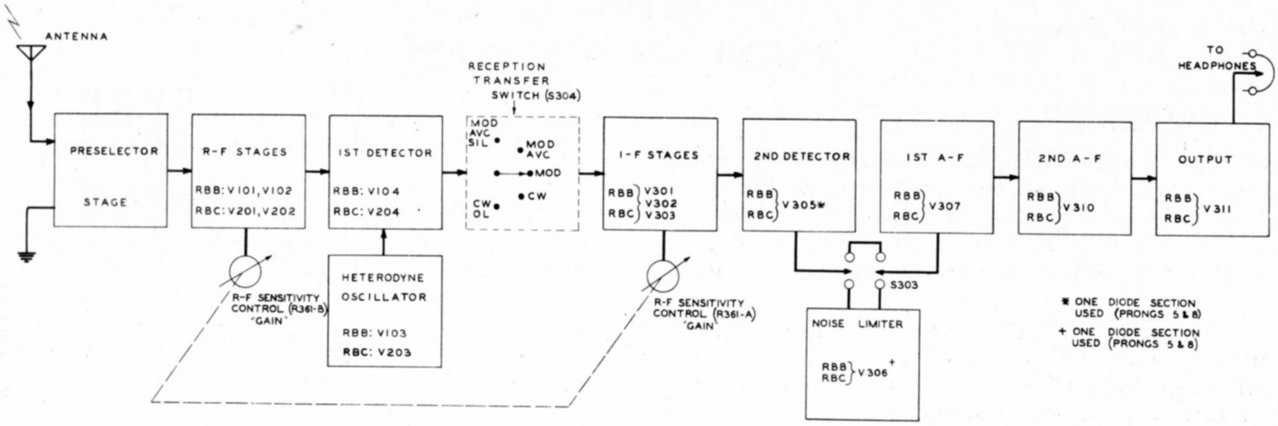


Figure 4-1 — Models RBB/RBC Radio Receivers, "MOD" Reception (Block Diagram, P-717906)

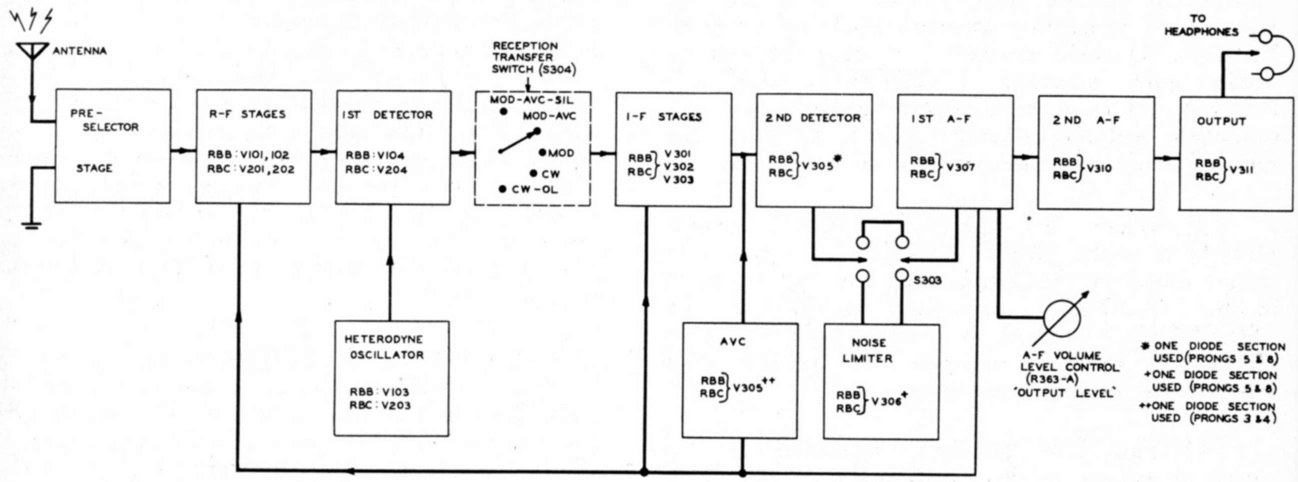


Figure 4-2 — Models RBB/RBC Radio Receivers, "MOD-AVC" Reception (Block Diagram, P-717921)

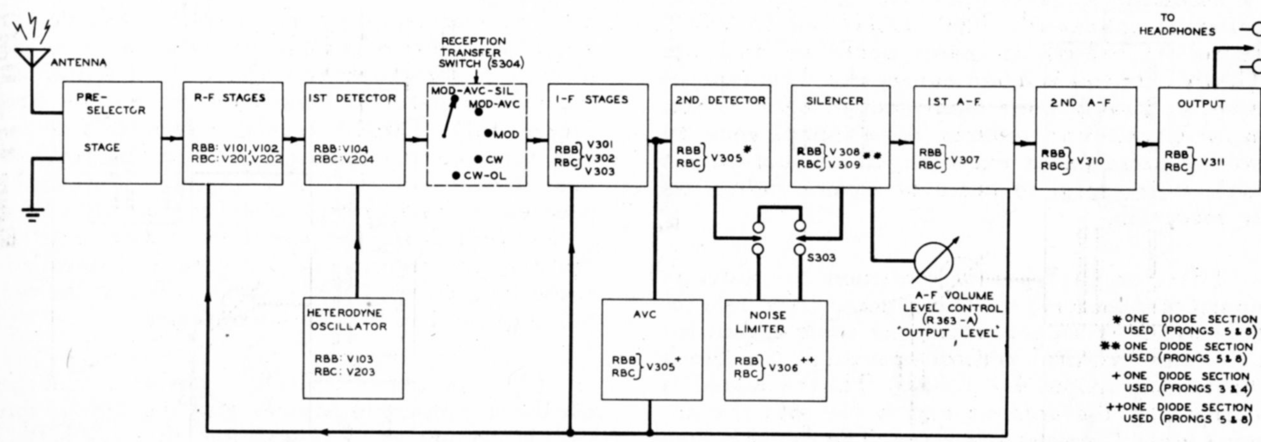


Figure 4-3 — Models RBB/RBC Radio Receivers, "MOD-AVC-SIL" Reception (Block Diagram, P-717922)

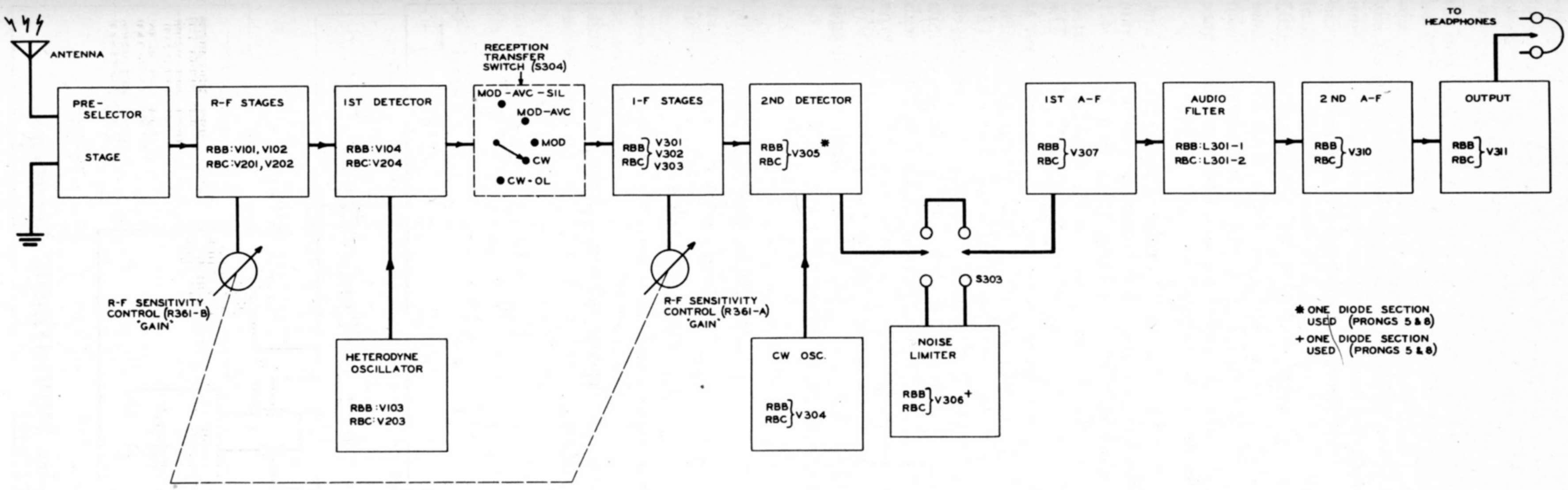


Figure 4-4—Models RBB/RBC Radio Receivers, "CW" Reception (Block Diagram, T-617602)

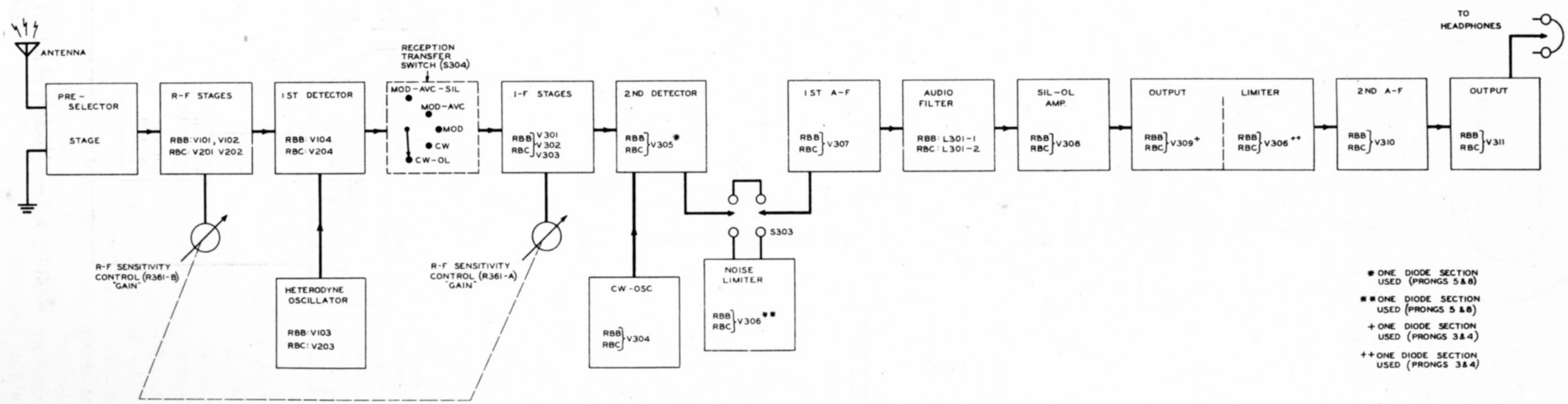


Figure 4-5—Models RBB/RBC Radio Receivers, "CW-OL" Reception (Block Diagram, T-617603)

2. PRESELECTOR (R-F) UNIT.

a. GENERAL.—

(1) In the following discussion, frequent reference should be made to the schematics, Figures 7-19 and 7-25.

(2) The r-f circuits of the Models RBB/RBC radio receiving equipments include an antenna input stage, two-stage r-f amplifier, heterodyne oscillator, and first detector (mixer). Five variable tuned circuits are used; two preceding the first r-f tube (V101 or V201); two as interstage coupling circuits; and one in the heterodyne oscillator circuit.

b. ANTENNA INPUT STAGE.—

(1) The r-f input connection for the preselector unit is a concentric jack (J101 or J201) located at the rear of the unit. This jack is connected to a terminal board (E105 or E209), carrying link connectors for adapting the input circuit to the various operating conditions shown in Figure 2-4. For operation of a single equipment from a simple antenna or transmission line, the link connectors provide for connecting the input to either of two input systems designed to match the antenna impedance or line impedance as the case may be. The RBB receiver connected for line operation employs a capacitor (C107) to shunt the unused antenna input system in order to maintain alignment of the first circuit. For common operation of more than one RBB equipment on the same antenna, a 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 a decoupling capacitor (C150) is employed. For common, operation of the RBC and RBB equipments from a single antenna, a decoupling capacitor (C217) is employed in series with the RBC input circuit.

(2) For transmission line input, the coupling system for the Models RBB/RBC radio receiving equipments consists of separate coupling coils for each band, magnetically coupled to the low potential side of the respective tuned circuit.

(3) This particular method of coupling, described in Paragraph (2) above, minimizes capacitance coupling. The proper coupling coils for transmission line input are designed to match the receiver input to an average of 70 ohms resistance over each frequency band. The proper coupling coil for a particular band is selected by a section of the gang band switch (S101 or S201).

(4) For antenna input, the Model RBC antenna input coupling system is similar to the line input systems (see Paragraphs (3) and (4) above), except that the coupling coils are designed to match the receiver input to an average of 300 ohms resistance at the high frequency end. In the Model RBB radio receiving equipment, the input 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.

(5) The input circuit of each band is coupled to the control grid (4) of the first r-f tube (V101 or V201) through two tuned circuits, that is, the coupling coils are magnetically coupled to the first tuned circuits which in turn are magnetically coupled to the second tuned circuits. The desired band is selected by sections of the gang band switch S101 and S102, or S202 and S207 (See Figures 7-19 and 7-25.) These switches also operate to short out circuits which would otherwise introduce spurious resonance effects or "dead spots."

(6) The tuned circuits discussed in Paragraph (5) above, are supplied with separate trimmer capacitors for each band. See Tables 4-1 and 4-2. Each inductance may also be adjusted by means of a magnetite adjustable core. The inductance values, however, are accurately set at the factory and normally require no adjustment in service. An additional trimmer capacitor C128 or C236 ("ANT. COMP." control) is employed for the first tuned circuit. This capacitor permits trimming the first tuned circuit to resonance with antennas of 80 to 500 mmfd. capacity. The type –991 gaseous discharge tube (V105 or V205) protects the input circuit from high r-f voltages induced by local transmitters.

TABLE 4-1
TRIMMERS
MODEL RBB

Band	Trimmer for 1st Tuned Circuit	Trimmer for 2nd Tuned Circuit
1	C129	C133
2	C130	C134
3	C131	C135
4	C132	C136

TABLE 4-2
TRIMMERS
MODEL RBC

Band	Trimmer for 1st Tuned Circuit	Trimmer for 2nd Tuned Circuit
1	C237	C241
2	C238	C242
3	C239	C243
4	C240	C244

c. R-F AMPLIFIER STAGES (MODEL RBB).—

(1) The two r-f amplifier stages of the Model RBB radio receiving equipment employ two Type -6SK7 tubes (V101, V102). In the Model RBB radio receiving equipment, where the r-f selectivity appreciably affects the overall weak signal selectivity, degeneration is introduced in the r-f tube cathode circuits by resistors R124 and R125. These resistors tend to neutralize variations in tube input capacities and thus minimize changes in overall selectivity with gain control variation. Resistors R102 and R103 are cathode bias resistors. The capacitors C115, C118 effectively by-pass the radio frequency around the resistors R102, R103. A trap circuit (L101, C106) is in the screen grid circuit of the first r-f tube (V101) to reduce interference from signals on the i-f amplifier frequency. Resistors R113, R122 and R114, R123 are screen grid voltage divider networks for the first r-f and second r-f tubes respectively. These networks tend to neutralize voltage variations in the r-f screen grid circuits. Screen grid by-pass capacitors C116 and C119 are filters to keep r-f from passing through to the plate supply. R105, R106 are plate filter resistors and C117, C120 are plate by-pass capacitors. The combination R110, C113 form a control grid filter network for the second r-f tube.

(2) The r-f amplifier stages of the Model RBB radio receiving equipment employ separate r-f transformers for each band, selected by the band switch section S103 and S104. The third tuned circuit consists of transformers T105 to T108 and the fourth tuned circuit consists of the transformers T109 to T112. The transformers employ loosely coupled primaries, resonant at frequencies considerably higher than the high limit of their respective bands. This particular design limits the r-f gain to a value just sufficient to insure the desirable high signal-to-noise ratio and the tubes are permitted to operate at the optimum for maximum signal-to-noise ratio and minimum cross modulation. The tuned circuits discussed in this paragraph are supplied with separate trimmer capacitors for each band (see Tables 4-3 and 4-4).

TABLE 4-3
R-F TRANSFORMERS AND TRIMMERS
MODEL RBB

Band	Transformer	Trimmer Capacitor
1	T105 T109	C137 C141
2	T106 T110	C138 C142
3	T107 T111	C139 C143
4	T108 T112	C140 C144

TABLE 4-4
R-F TRANSFORMERS AND TRIMMERS
MODEL RBC

Band	Transformer	Trimmer Capacitor
1	T205 T209	C245 C249
2	T206 T210	C246 C250
3	T207 T211	C247 C251
4	T208 T212	C248 C252

d. R-F AMPLIFIER STAGES (MODEL RBC).

(1) Capacitor C210 couples the antenna input stages to the first r-f amplifier stage. The first r-f stage of the Model RBC radio receiving equipment, employs a Type -6AB7 tube (V201), which, by virtue of its high transconductance characteristic, permits better signal-to-noise ratio in the higher frequency bands. The second r-f stage employs a Type -6SK7 tube (V202). R216 and R217 are grid leak resistors for the first and second r-f tubes respectively. R209, C222, and R210, C223 are control grid filter networks. The bias on the control grids (4) of V201 and V202 is set at the proper operating value by action of the cathode resistors R201 and R202. The capacitors C225 and C228 effectively by-pass the r-f around resistors R201 and R202. Capacitors C226 and C229 prevent any variation on the screen by passing the r-f to ground. Resistors R205, R206 are plate filters for the first and second r-f tubes and C227, C230 are plate by-pass capacitors. Capacitor C201 couples the first r-f tube (V201) to the second r-f tube (V202) which in turn is coupled to the first detector tube (V204) by means of the capacitor C203.

(2) The r-f amplifier stages of the Model RBC radio receiving equipment employ separate r-f transformers (T205 to T212, see Figure 7-25 and Tables 4-3 and 4-4) for each band, selected by the band switch sections S203 and S204. This switch also short-circuits coils not in use, in order to eliminate spurious resonance effects. The transformers employ primaries which resonate in conjunction with the tube plate capacitance at frequencies below the low limits of their respective bands. Grid loading effects are minimized by connecting the r-f grids to the tuned circuits through capacity dividers, such as capacitors C211 and C204 in the case of the second r-f tube. The r-f amplifier gain is limited to a value just sufficient to insure the desirable high signal-to-noise ratio by the transformer coupling, thus permitting the r-f tubes to operate at the optimum conditions for maximum signal-to-noise ratio and minimum cross modulation.

e. OSCILLATOR.—

(1) The heterodyne oscillator of either Model RBB or RBC radio receiver is specially designed to offer a high degree of stability under adverse operating conditions of varying humidity, temperature, supply voltage, and vibration. The Type –6AB7 tube (V103 or V203) is used since its high transconductance characteristic permits departures in circuit design in the interest of stability which are not possible with lower transconductance tubes. Separate inductances and trimmers are used for each band selected by the band switch sections S105 and S106 or S205 and S206. These switches also short out such circuits as may be necessary to avoid spurious resonance effects. The oscillator tube grid and cathode circuits connect through the switching arrangement to taps on the tuned circuit inductances T113 to T116 or T213 to T216. The tap ratios are adjusted for optimum stability as regards supply voltage variations. This adjustment contributes to temperature and humidity stability by minimizing the effect on frequency of circuit Q changes. The oscillator supply voltages are further stabilized by the use of the heater voltage regulator tube (V106 or V206) and a plate voltage regulator (V402) located in the rectifier power unit.

(2) The screen grid of the oscillator tube functions as the plate of the oscillator circuit and operates at ground potential for r-f through the low impedance connection of capacitors C123 or C233 so that any coupling between the oscillator circuit and the plate circuit of the Type –6AB7 tube other than electron coupling is minimized. Stray coupling occurring at the higher frequencies of the Model RBC equipment range is eliminated by the neutralizing circuit, consisting of coil L201 and capacitor C216. 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. The circuit is stabilized for temperature through the use of controlled components. The main tuning capacitor C149 or C257 is constructed from low temperature coefficient materials. The inductances are designed so as to utilize the difference in coefficients of expansions of the coil form and brass stud which supports the molded iron core to compensate for the circuit temperature coefficients at the low frequency ends of their respective bands. At the high frequency ends of the bands the circuit temperature coefficients are compensated for by means of negative coefficient capacitors C101 to C104 or C206 to C209.

(3) The oscillator circuits are adjusted to track at 400 KC higher frequency than the radio frequency and tuned input circuits over the frequency bands. This action is accomplished by the use of fixed series capacitors C108 to C111 or C218 to C221, and proper adjustment of the inductances. Parallel trimmer capacitors (C145 to C148 or C253 to C256) are provided for service alignment. The oscillator supply voltages are stabilized by the use of heater voltage regulator tube (V106 or V206) and a plate voltage regulator tube (V402) located in the rectifier power unit. Stray coupling, occurring at the higher frequencies of the Model RBC radio receiving equipment range, is eliminated by the neutralizing combination L201, C216.

f. FIRST DETECTOR.—

(1) The output of the oscillator circuit in the RBB radio receiver is coupled to the cathode of the first detector (mixer) tube (V104) by capacitor C124. In the RBC radio receiver the oscillator output is coupled to the first detector by C212. The difference frequency (400 KC) is fed from the first detector plate to the i-f amplifier input through a concentric shielded conductor.

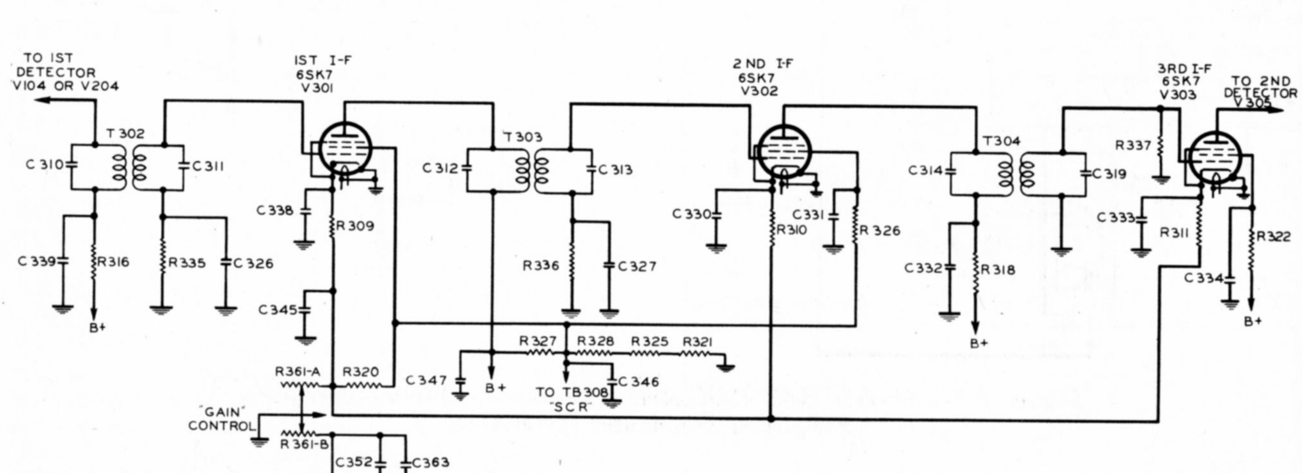


Figure 4-6 — Models RBB/RBC Radio Receivers, I-F Stages (Simplified Schematic, P-717966)

3. I-F/A-F UNIT.

a. GENERAL.—

(1) See overall schematic, Figure 7-31. The i-f/a-f unit includes a 400 KC, three stage i-f amplifier, second detector, two stage audio amplifier, cw oscillator, automatic volume control, noise limiter circuit, silencer circuit, and output limiter circuit. To understand better the complete i-f/a-f circuit the five types of reception will be discussed individually.

b. "MOD" RECEPTION.—

(1) The beat frequency of 400 KC difference is inductively coupled from the first detector to the i-f section. The i-f circuit consists of three stages, utilizing three Type –6SK7 tubes (V301, V302, V303). See simplified schematic, Figure 4-6. The i-f transformers (T302, T303, T304, and T305) are designed to provide three degrees of selectivity and are controlled by the gang switch S306, S307 and S308 (see overall schematic, Figure 7-31). The tuned circuits employ fixed capacitors and are tuned by means of adjustable molded magnetite cores in the transformer primary and secondary windings. R309, R310, and R311 are cathode minimum bias resistors. A manual gain control (R361-A, B) is provided, which varies the gain of both the i-f/a-f unit and the preselector unit. The potentiometer R361-B controls the gain of the first and second r-f amplifier stages by variation of cathode voltages. The potentiometer R361-A similarly controls the gain of the three i-f amplifier stages.

amplifier, that is, the audio voltage is developed across resistor R348. The combination R347, C309 functions as a filter for the i-f frequency. The diode direct current is made available for test purposes by the provision of a link connector, which permits insertion of a microammeter in series with the ground return of the diode load resistor R348. The combinations R345, C320 and R363-A, C328 are a-c load impedance networks and are kept as high (with respect to the d-c load impedance R347, R348) as permitted by other desired operating characteristics in order to minimize distortion on deep modulation.

(3) The noise limiter is one of the diodes of a Type –6H6 tube (V306). When a loud noise impulse is received the noise limiter acts as a switch to open the circuit between the diode load resistor R348 and the grid coupling capacitor C328. This diode normally acts as a low resistance in series with this circuit, since its plate is kept at a positive potential with respect to its cathode. (This is the voltage drop across the resistor R347.) When electrical (noise) interference causes a sudden high voltage (above a minimum or threshold level) the plate of the diode (V306) has the higher voltage applied immediately, but the voltage to the cathode is delayed by the length of time required to charge the capacitor C320 through resistor R345. Thus, for a fraction of a second, the cathode becomes more positive than the plate, and during this time, the diode acts as an open circuit. This momentary delay, usually is sufficient time to block the receiver until the noise has died down.

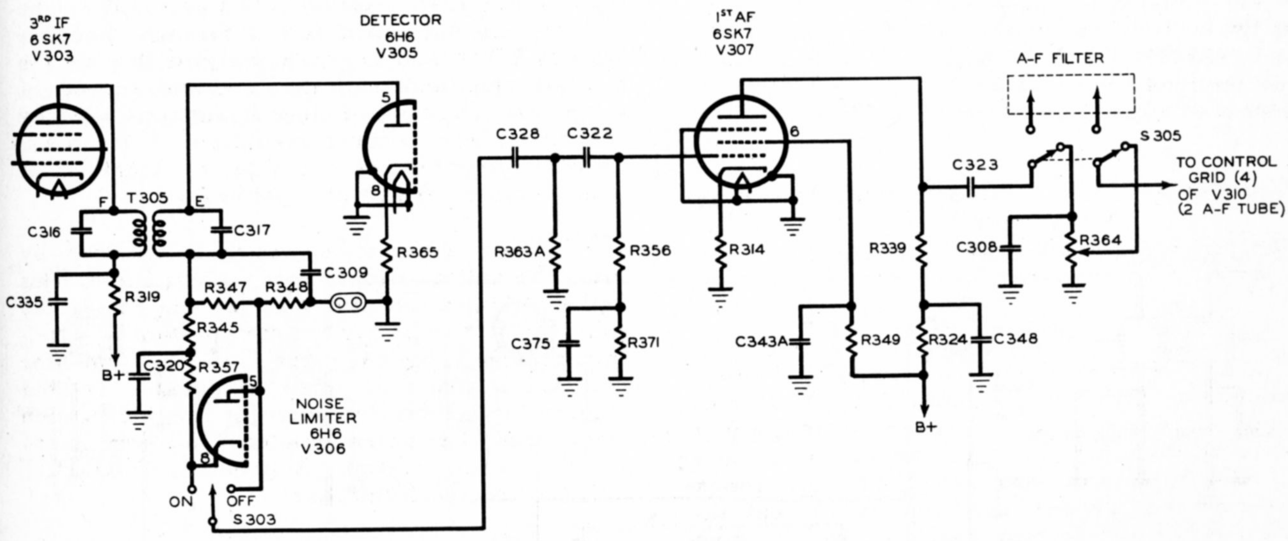


Figure 4-7 — Models RBB/RBC Radio Receivers, "MOD" Reception (Simplified Schematic, M-430724)

(2) See Figure 4-7. The second detector, one of the diodes of a Type –6H6 tube (V305), is connected across the secondary of the fourth i-f transformer (T305). Half the audio voltage developed in the diode circuit is fed to the audio

(4) The audio voltage developed in the second detector (V305) is resistance coupled to the audio stages. Capacitor C322 couples the second detector to the first a-f stage. The first a-f stage employs a Type –6SK7 tube (V307). R356

is a grid leak resistor. The C bias for the tube V307 is obtained by action of the cathode resistor R314. Proper operating voltage for the screen grid of V307 is obtained by the voltage drop across resistor R349. The decoupling circuit R324, C348 is intended to keep the a. c. out of the power supply and to reduce hum.

(5) The output of the first audio is coupled to the second audio stage by means of capacitor C323. Switch S305 switches an audio band-pass filter in or out of the circuit. When the audio band-pass filter is switched out of the circuit, a pad resistance (R364) is inserted and permits the gain to be adjusted between 3 and 5 db below the gain with the filter in.

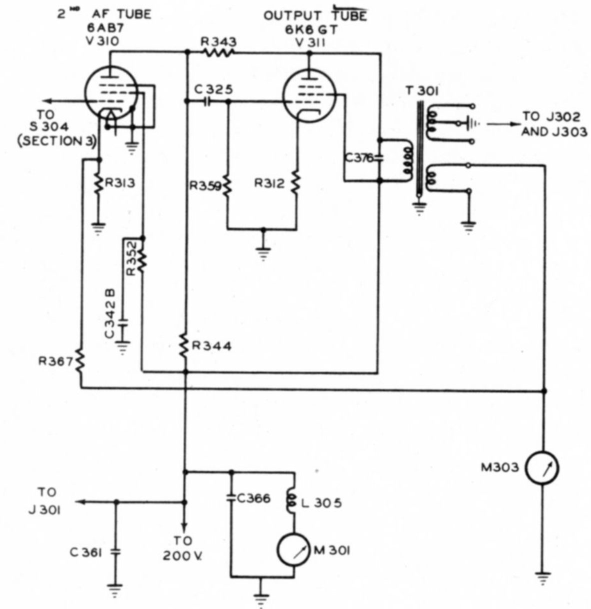


Figure 4-8 — Models RBB/RBC Radio Receivers, Second Audio Stage (Simplified Schematic, K-891622)

(6) See Figure 4-8. The second a-f stage employs a Type –6AB7 tube (V310). Inverse feedback is applied to the second a-f and output stage by coupling from the output transformer (T301) back to the second a-f cathode, through the resistance divider R367 and R313. The resistor R313 also furnishes self-bias for the tube (V310).

(7) Capacitor C325 couples the second a-f to the output stage. This stage employs a Type –6K6–GT tube (V311). The output stage is degenerative through the use of coupling resistors R343 and R312. The resistor R312 also supplies self-bias for the tube (V311). The degeneration serves to hold the output voltage, essentially constant for wide variations in plate loading. Thus the output winding of transformer T301 will supply from one to twenty pairs of 600-ohm headphones connected in parallel with not more than 3 db change in output voltage.

(8) (See overall schematic, Figure 7-31.) The output transformer is provided with an electrostatic shield between the primary and secondary. The output winding has 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 an output receptacle (J302) mounted at the rear of the i-f/a-f unit. Both of these output connections are suitably filtered to minimize pickup from local transmitters.

(9) The output transformer contains a separate secondary winding which is connected to the output meter (M303) and output range switch (S302).

c. "MOD-AVC" RECEPTION.—

(1) (See Figure 4-9.) The a.v.c. system utilizes the other diode of the detector-a.v.c. tube (V305). The plate of the final i-f tube (V303) is coupled to the a.v.c. diode tube (V305, prongs 3 and 4). A delay voltage (bias) is applied to the cathode of the a.v.c. diode (V305) to prevent a.v.c. action below a predetermined input signal level. This voltage is obtained from the bleeder network R327, R328, R325, and R321. A d-c voltage is set up across a.v.c. diode load resistors R338 and R355. The full voltage developed is fed through the filter resistor R354 and controls the grid bias of the two r-f amplifiers and the first and second i-f amplifiers. The final i-f stage is not controlled by the a.v.c., since proper operation of the a.v.c. requires operation of the final i-f amplifier at near its optimum output capabilities.

(2) An audio a.v.c. action is obtained by using the voltage drop across resistor R338. This action supplies the grid bias for the first audio tube (V307). The a.v.c. time constant is determined largely by capacitor C342-A. The time constant is made as small as possible without introducing serious distortion for low modulation frequencies. The potentiometer R363-A is the a-f volume level control, designated "OUTPUT LEVEL" on the front panel.

(3) This a.v.c. system helps to keep the overall gain of the receiver fairly constant for considerable change in input signal. Capacitor C322 couples the detector diode tube (V305) to the grid of the first a-f tube (V307).

(4) The noise limiter circuit, a-f, and output stages are the same as previously described in Paragraphs 3b (3) to 3b (8) inclusive.

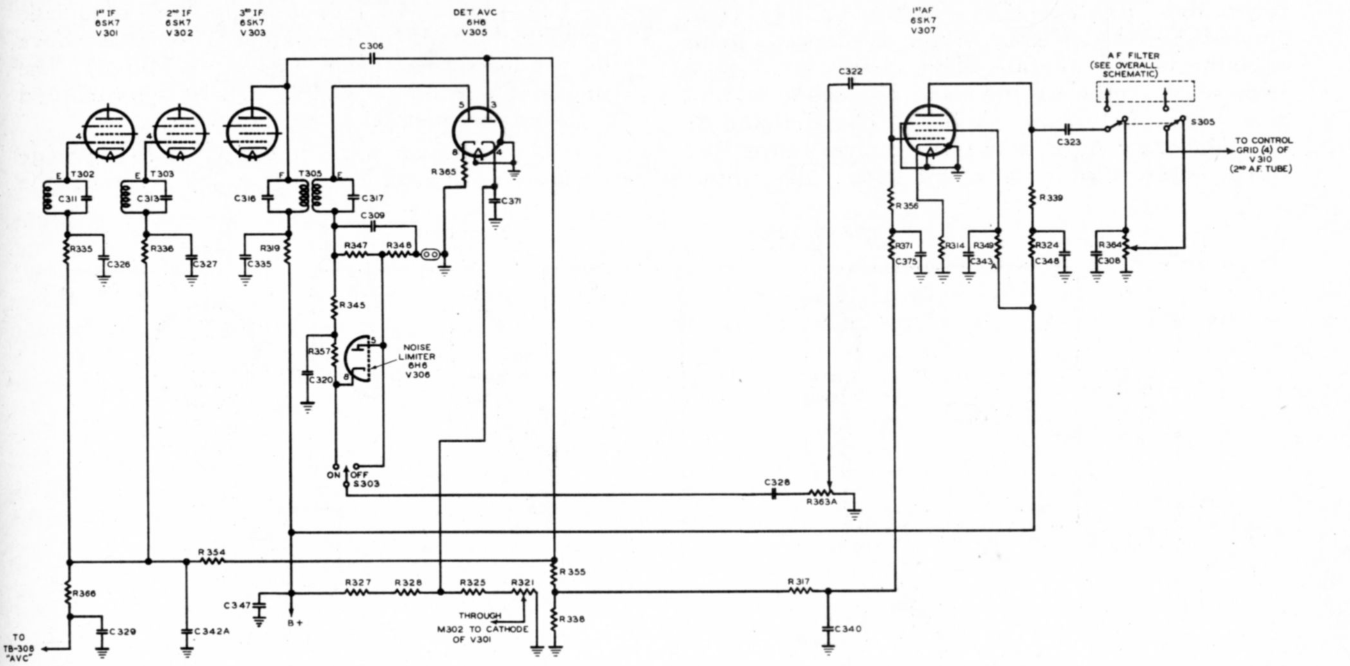


Figure 4-9 — Models RBB/RBC Radio Receivers, "MOD-AVC" Reception (Simplified Schematic, T-617612)

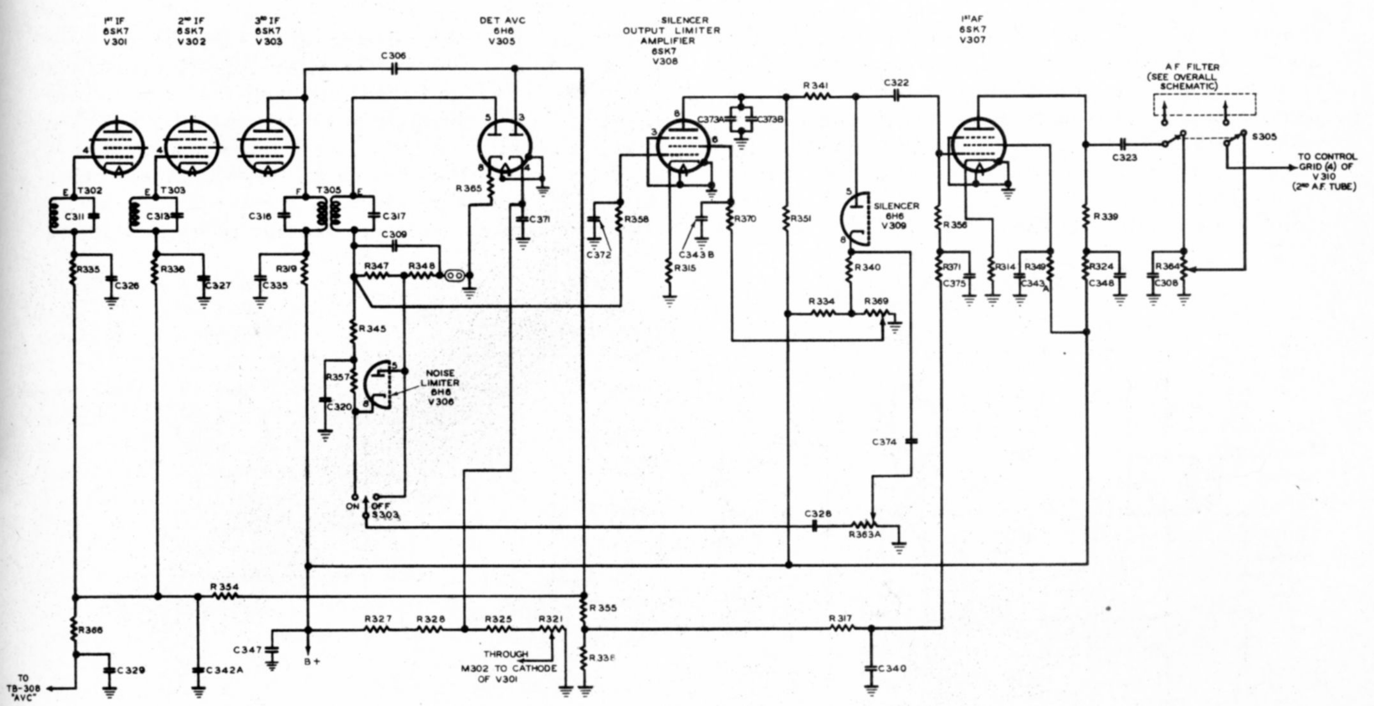


Figure 4-10 — Models RBB/RBC Radio Receivers, "MOD-AVC-SIL" Reception (Simplified Schematic, T-611995)

d. "MOD-AVC-SIL" RECEPTION.—

(1) (See Figures 4-10, 4-11, and 4-12.) When the "RECEPTION" switch (S304) is in the "MOD-AVC-SIL" position, a silencer circuit is connected to operate. This circuit employs a Type –6SK7 tube (V308) and one diode section of a Type –6H6 tube (V309). The function of the silencer circuit is to cut off receiver output for inputs below a predetermined level. The output (R369). This control varies the screen voltage of tube V308 (see Figure 4-10).

(2) Figure 4-11 is a simplified schematic showing the path of the signal when it is above the predetermined level (see note above). The silencer diode tube (V309) acts as a switch and is placed in series with the audio input.

(3) The silencer diode tube (V309) is made conductive or non-conductive by varying the

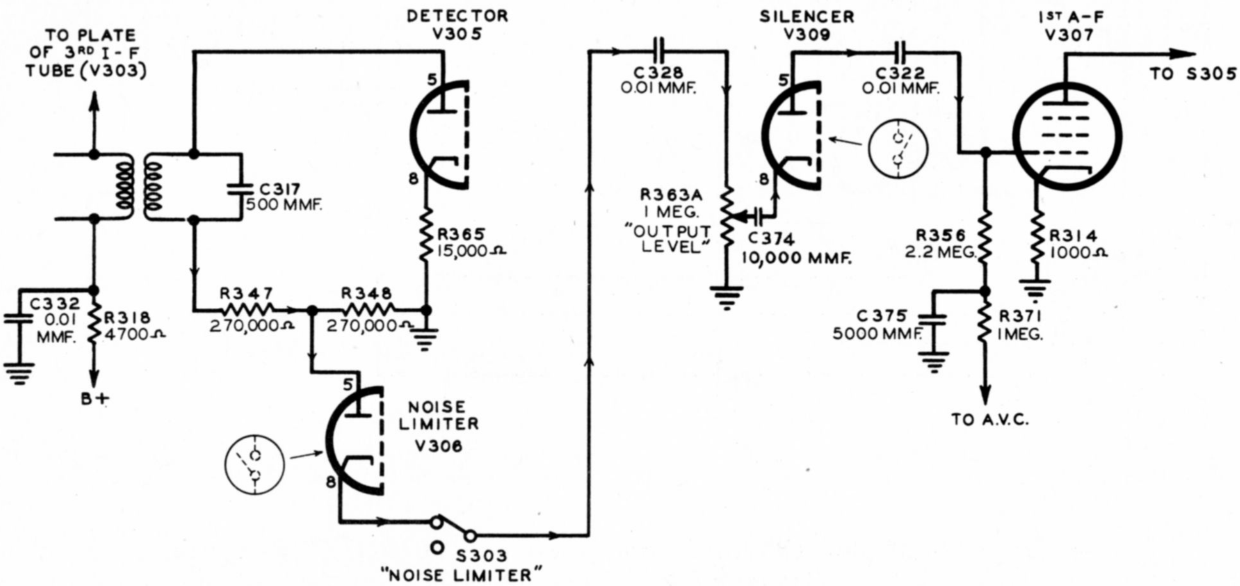


Figure 4-11 — Models RBB/RBC Radio Receivers, "MOD-AVC-SIL" Signal Circuit (Simplified Schematic, M-430757)

remains cut off for noise pulses considerably above this level due to the time constant of the circuit. When the input signal is above the predetermined level, the silencer circuit permits the signal to pass to the receiver output. NOTE: The circuit may be adjusted to operate on any carrier input level in the range of 5 to 10,000 microvolts by means of the "SILENCER" control voltage across the resistors R340 and R341 (see Figure 4-12). The voltage developed across load resistors R347 and R348 is applied to the control grid of V308 through filter resistor R358. When the signal falls below a predetermined level, this voltage makes the control grid of V308 less negative. This action produces a greater plate current, thereby causing a greater voltage to be developed

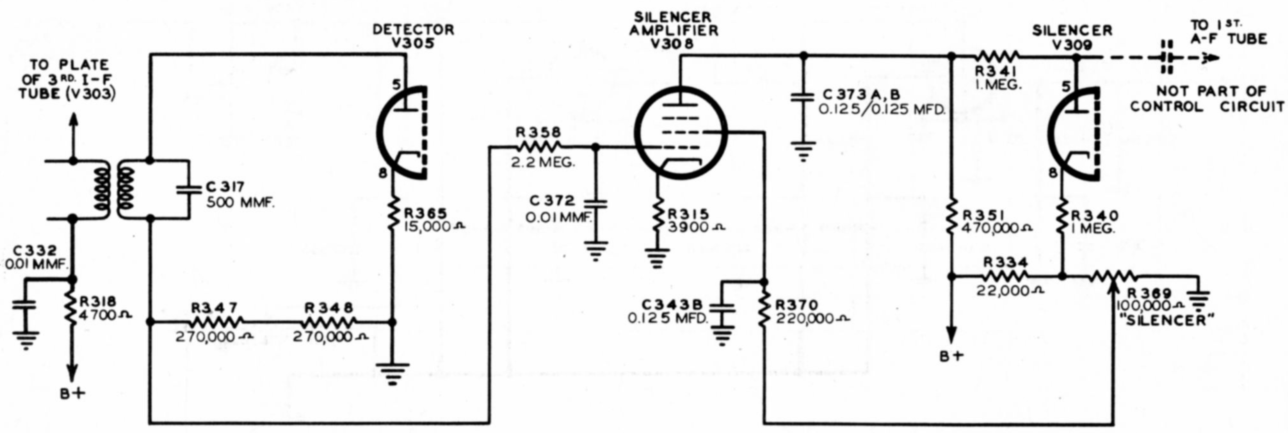


Figure 4-12 — Models RBB/RBC Radio Receivers, "MOD-AVC-SIL" Control Circuit (Simplified Schematic, M-430756)

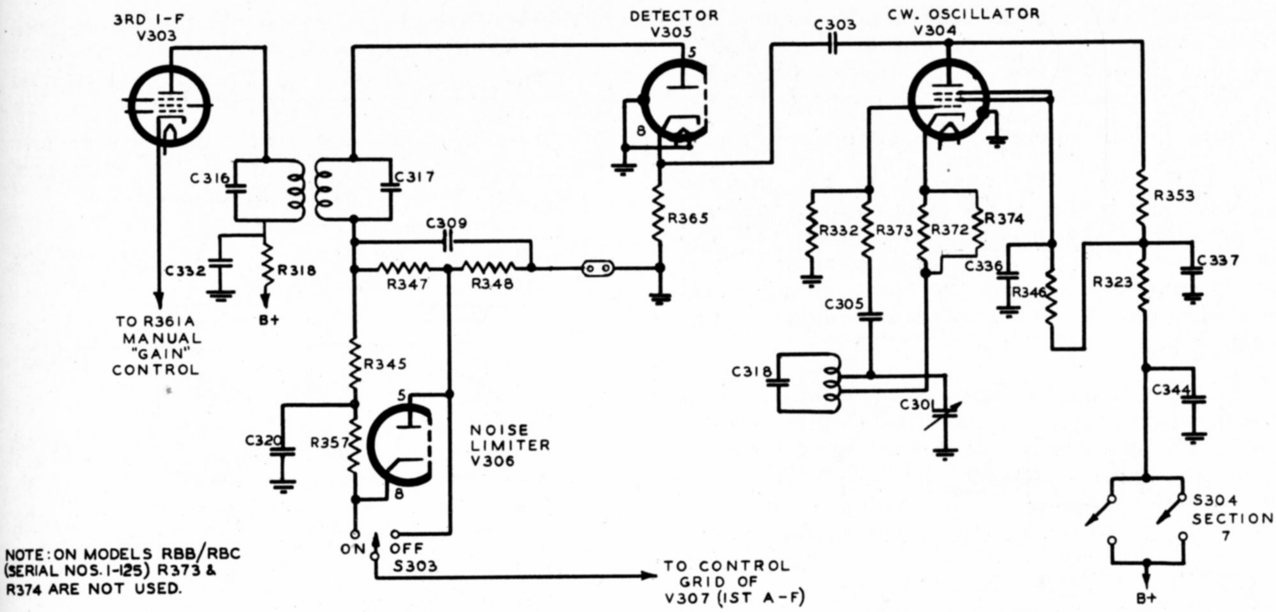


Figure 4-13 — Models RBB/RBC Radio Receivers, "CW" Reception (Simplified Schematic, M-430771)

across R351. This biases the silencer diode tube (V309) below cut off, thereby removing the input to the audio amplifier. In order to prevent noise pulses from breaking through, when the receiver is operating in the silenced condition, the resistance-capacity combinations R358, C372 and R351, R373-A, B are used to introduce a time constant which holds the plate current of tube V308 relatively constant for noise pulses considerably above the desired signal level.

e. "CW" RECEPTION.—

(1) For "CW" reception an oscillator, tuned to 1,000 cycles (±5%) higher than the intermediate frequency, is connected into the circuit through the cathode resistor (R365) of the detector diode V305 (see Figure 4-13). The cw oscillator uses a Type –6AB7 tube (V304) and employs a circuit similar to that used in the heterodyne oscillators of the preselector units (see Paragraph 2e). The variable capacitor C301 is provided so that a variation of approximately 1,500 cycles on either side of the preset oscillator frequency may be obtained. The tuned circuit consists of transformer T306 and capacitor C318.

f. "CW-OL" RECEPTION.—

(1) See Figure 4-14. The output limiter circuit is designed primarily for telegraph reception and functions to hold the output constant for

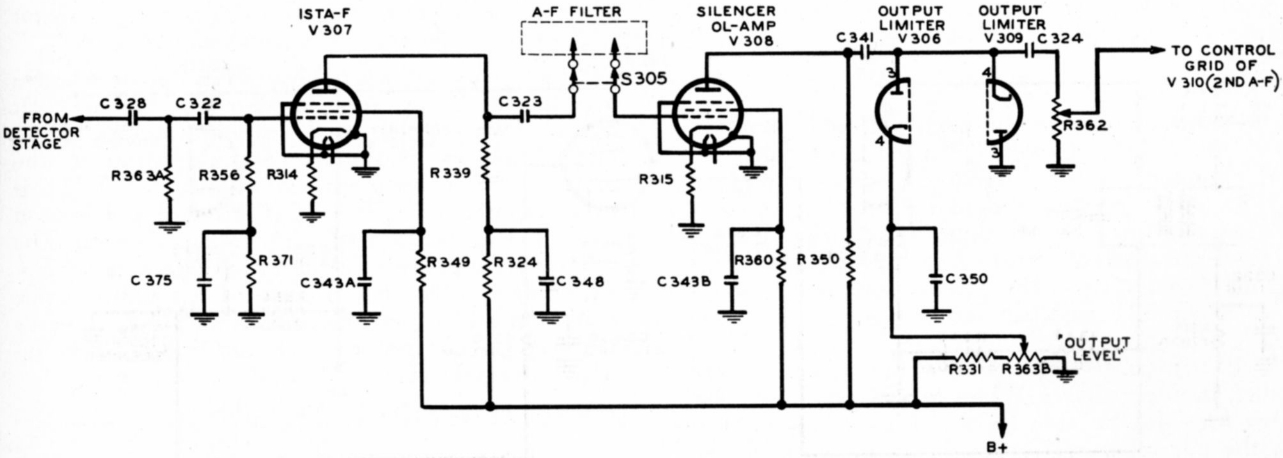


Figure 4-14 — Models RBB/RBC Radio Receivers, "CW-OL" Reception (Simplified Schematic, M-430797) wide variations of input. This circuit employs one diode section of the Type –6H6 tube (V306) and one diode section of the Type –6H6 tube (V309). These diode tubes are connected in the form of a full-wave rectifier in shunt with the plate load (R350) of tube V308 in order to limit both sides of the cycle. In this position (CW-OL) the tube V308 acts as an additional a-f amplifier stage, inserted between the first and second audio stages. This additional amplification is employed to raise the audio voltage level to a high enough value to secure efficient limiting action.

(2) Referring to Figure 4-14, it will be seen that the diode sections concerned (V306, V309) are biased by a portion of the voltage developed across the entire resistance of R363-B. The voltage actually applied to the cathode must be balanced out by an equally great signal voltage before limiting occurs. Thus, by varying R363-B ("OUTPUT LEVEL" control), the limiting action may be made to act on very weak signals, or it may be delayed until it acts only on very strong signals. The bias voltage is applied to both cathodes as soon as emission occurs in the diode (V306). Thereafter, bias is maintained on V309 by the delay introduced by the R-C components in the circuit.

(3) It will be noticed that the effect of this circuit on the audio wave is somewhat similar to that of the noise limiter effect on r-f waves. The 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 very rapid in action, and exerts a continuous control on the audio wave peaks as long as it exceeds a certain value, that is, volume level.

(4) The correct setting of the "OUTPUT LEVEL" control is determined by the weakest signal to be received. If the circuit is set to cut off wave peaks (i.e., limit) at the level of the weakest signal, all stronger signals will be kept at this same volume level.

NOTE

Although effectively both "GAIN" and "OUTPUT LEVEL" controls cause changes in the received signal, the "GAIN" control should be set to permit a comfortable volume level for the weakest signal before any limiting action is brought into the circuit by means of "OUTPUT LEVEL" control.

(5) Figure 4-15b shows the effect of too much limiting action. When this occurs, the operator may not be able to obtain sufficient volume at the headphones. Figure 4-15a indicate the effect when there is not enough limiting action. This results in different volume levels. Figure 4-15c shows the correct amount of limiting action.

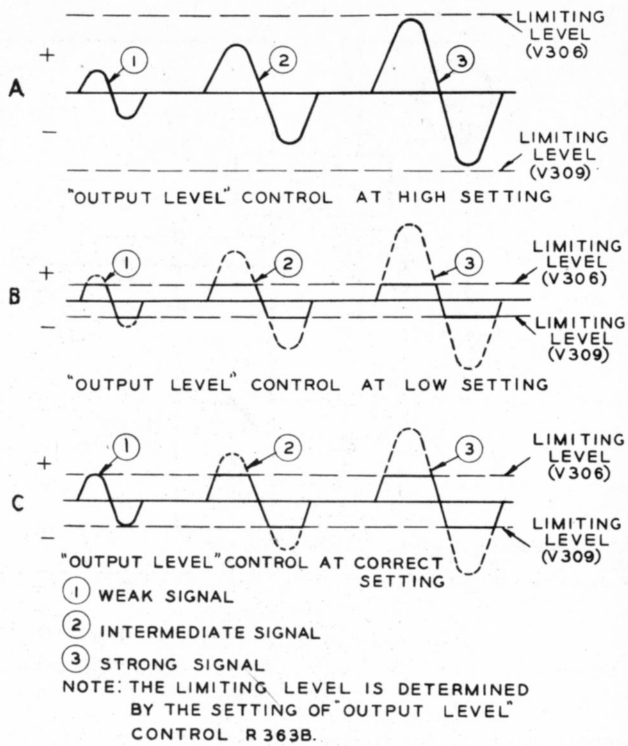


Figure 4-15 — Models RBB/RBC Radio Receivers, Output Limiter Action (K-892926)

g. "INPUT" METER.—

(1) An "INPUT" meter (M302) is included in the i-f/a-f unit circuit. The meter is connected through the "RECEPTION" transfer switch (S304) in such a manner that it is operative only in the "MOD-AVC" and the "MOD-AVC-SIL" positions. In these positions the a.v.c. is operative and varies the bias on the first i-f tube (V301) in proportion to the input signal level. The tuning meter is connected across the cathode resistor (R309). Variation of the bias on tube V301 results in voltage variations across R309 due to plate current variation. The deflection of meter M302, thus, indicates the input signal level.

(2) The meter is calibrated in decibels above one microvolt up to 120 decibels or one volt input. Two adjustments, potentiometers R368 and R321 are provided for calibration of the meter. One adjustment, potentiometer R321 is the front panel "ZERO SET" control and is used to set the meter to zero with no signal input. The other potentiometer R368 which is a screwdriver adjustment is located on the i-f/a-f unit chassis, and is used to set the maximum deflection as required to compensate for conditions of variation in overall gain, tube replacement, etc.

h. AUDIO BAND PASS FILTER.—

(1) An audio band-pass filter is connected or disconnected from the circuit by means of the "AUDIO SELECTIVITY" switch (S305). The filter unit is arranged as a separate assembly and

different units L301-1 and L301-2 are employed for operation with the Models RBB/RBC radio receiving equipments respectively. The two units differ as to the band-pass width, 200 cycles at 6 db attenuation for the Model RBB filter and 300 cycles for the Model RBC. The wider band is used in the Model RBC equipment to facilitate 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 as to insertion loss. When the filter is switched out of the circuit, a variable pad resistance (R364) is inserted. This permits the gain to be adjusted between 3 and 5 db below the gain with the filter connected. The filter circuit is located between the first and second audio stages.

i. POWER INPUT.—

(1) Power input to the receiver unit is into the i-f/a-f unit through receptacle J301 at the rear of the i-f/a-f unit and is connected to the preselector unit by means of an internal interconnecting cable between the units. The power leads are by-passed in the i-f/a-f unit to minimize stray pickup from external fields. In addition, the power leads are filtered as required to minimize cross talk between two receivers (as an emergency, it may be required to operate two receivers from one power unit). The i-f/a-f circuits are separately filtered and shielded to minimize interstage coupling and regenerative effects. The first audio stage is provided with resistance and capacity filtering which is effective in reducing a-c hum introduced into the circuit through the plate supply.

4. RECTIFIER POWER UNIT.

a. (See Figure 4-16). The Power Unit Circuit includes a power transformer, rectifier, voltage regulator, filtering for a-c ripple, and r-f filtering. Both sides of the a-c input circuit are fused. An r-f filter is connected in the a-c input circuit. This filter, in conjunction with electrostatic shielding employed in the power transformer, provides attenuation (between either a-c input terminal and any d-c or a-c output terminal of the power unit) of at least 80 decibels to r-f interference in the range of 0.5 and 27 megacycles. The filter also offers excellent protection against r-f interference at lower frequencies. The "POWER" switch is located on the receiver unit and breaks one side of the a-c input circuit to the power transformer.

b. The input circuit connects to the power transformer, T401, through a terminal board which provides means of connecting to taps on the primary winding of the power transformer as required for operation from 110-, 115-, or 120-volt supply. The power transformer employs electrostatic shielding between the primary and secondary windings. Four secondary windings are provided for supplying rectifier heater voltages, rectifier plates, receiver 6.3 v. a-c, and receiver 17 v. a-c.

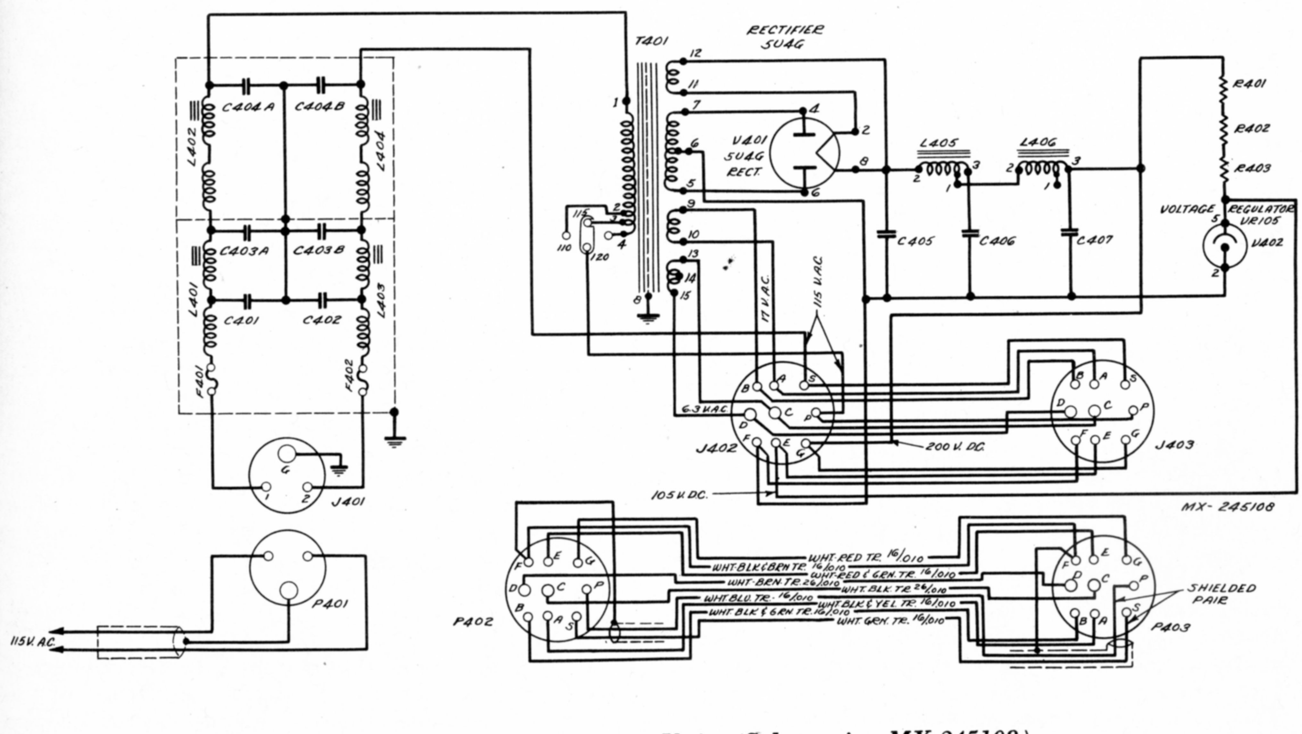


Figure 4-16 — Rectifier Power Unit (Schematic, MX-245108)

c. A type –5U4G full wave rectifier tube (V401) is used. The rectified output of the tube is fed to a choke input, two stage ripple filter L405, C406, L406, C407. The capacitor C405 at the filter input is employed for r-f filtering and is of sufficiently low capacity as to have a negligible effect on regulation. The filter thus functions as a choke input filter and provides good regulation. The first stage of the filter employs a tapped choke, the tap portion being in series resonance with C406 at the ripple frequency. The d-c output is connected to the output receptacles, J402 or J403, and furnishes the receiver "B" supply.

d. The VR105 regulator tube (V402) is connected through the series dropping resistors R401, R402 and R403 to the rectified d-c output. This circuit provides a regulated d-c supply for the heterodyne oscillator in the receiver unit.

e. Two output receptacles, J402 and J403, are furnished. These receptacles are connected in parallel and either receptacle may be used for connection to the receiver unit. Both receptacles are used for the emergency condition of operation where two receiver units are operated from a single power unit.

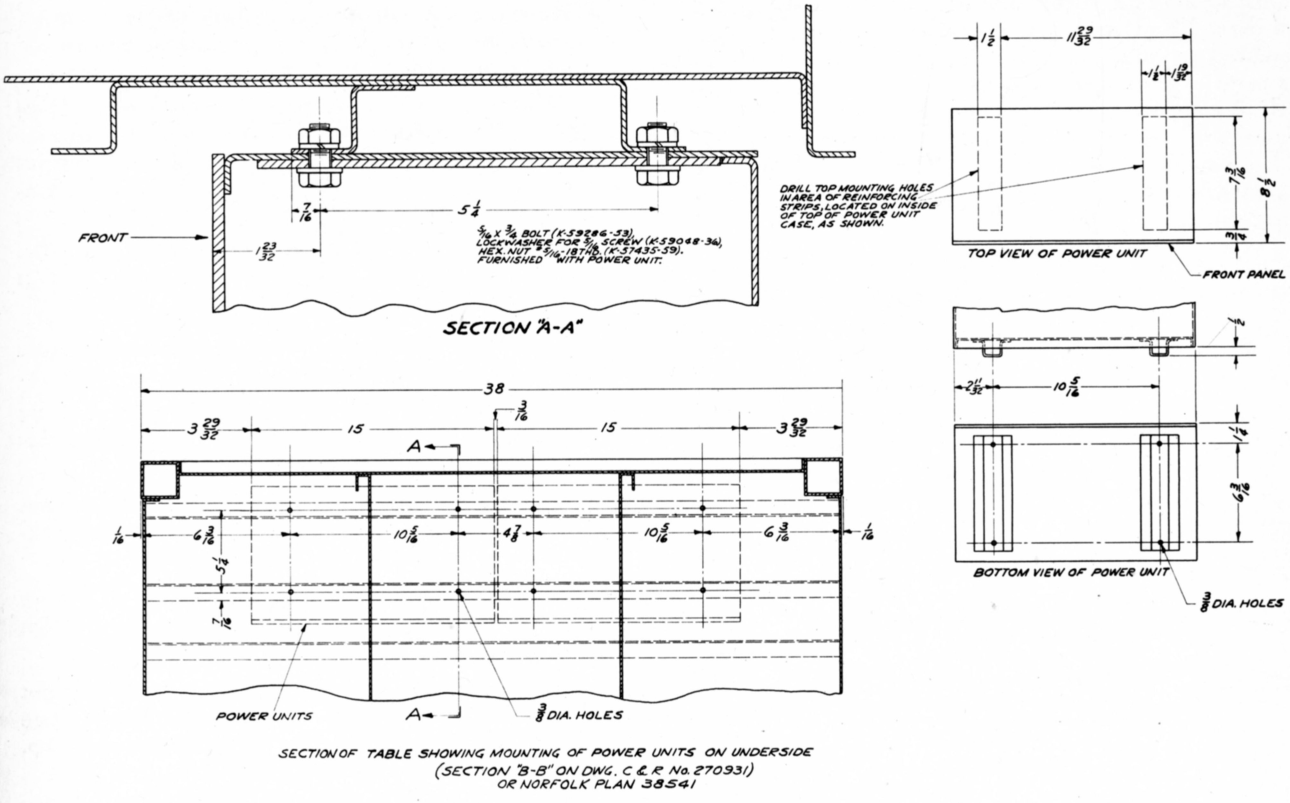


Figure 2-6 — Rectifier Power Unit, Mounting Diagram (PX-273650)

nated by chassis markings adjacent to the tube sockets.

(3) The supply voltage should be measured and the link connection for the power transformer taps set for 110-, 115-, or 120-volts, whichever corresponds most closely with the supply voltages. This link connection is located on a small terminal board mounted on top of the rectifier power unit chassis.

(4) Place the chassis in the cabinet and tighten the panel thumbscrews.

(5) Ground operating table by means of a metal strap or bus (see Figure 2-2). This grounding strap should be approximately $\frac{1}{32}$-inch thick and 2 inches wide.

3. CONNECTIONS.

a. Interconnect the radio receiver and rectifier power unit by means of interconnection cable, Navy Type CRV-49162.

b. Clamp the cable in place as indicated on Figure 2-2. Be sure to clean off the paint on the table so as to secure a good ground for the interconnecting cable. This operation is indicated as (1) on Figure 2-2.

c. Interconnect the phone output plug (see Tables 1-6 and 1-7) to the jack box, by means of an interconnecting cable. The jack box and cable are not supplied by contractor. See Operation (2) on Figure 2-2.

d. Remove paint from the operating table as indicated on Figure 2-2. Remove the insulation of the interconnecting cable at the point of clamping.

NOTE

When Armored Cable TTHFA-1 (two conductors), Bureau of Ships Specification 15C-1 (INT) is used see 3h. below.

e. Connect the antenna transmission line to the receiver by means of the concentric line plug. The transmission line is not supplied by RCA.

NOTE

If a single wire feed-type antenna is used the antenna adapter Navy Type -49152 (see Tables 1-6 and 1-7) should be inserted into J101 or J201 and the lead-in of the antenna must be terminated at the binding post of the antenna adapter.

f. A 3-pin a-c power plug is mounted on the rectifier power unit but the a-c power cable is not furnished. This cable should be Navy Type MCOS-2. The wires should connect to plug terminals No. 1 and No. 2 and shield must be connected to terminal "G." The shielded wires must run to a grounded junction box (not supplied by RCA) located near the equipment table. Do not insert the a-c power plug into its receptacle until the installation is complete. This may be used as a means of disconnecting the power when working on the equipment.

g. Plug the interconnection cable for the receiver unit into one of the two receptacles pro-

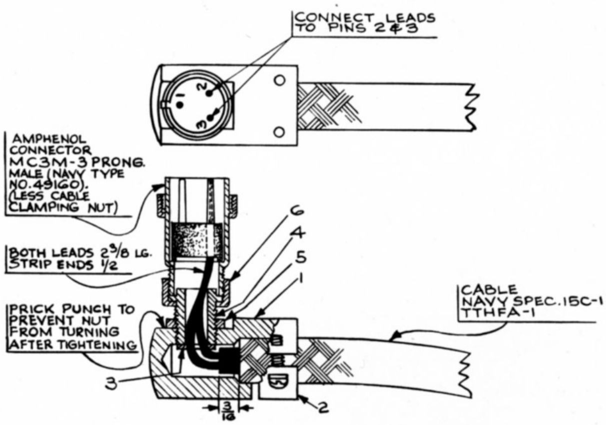


Figure 2-7 — Connector Assembly (K-885363)

vided to mate with the plugs on that cable. The unused receptacles should be covered with the cap provided, unless, in an emergency, two receivers are operated from a single power unit.

CAUTION

Remove the a-c power supply cable plug from its socket in the power unit before replacing either the unit tubes or fuses.

h. When a phone output cable Navy Type TTHFA-1 is used a Navy Type -49509 adaptor is required with the Navy Type -49160 output phone plug (see Tables 1-6 and 1-7 and paragraph 7-a (1)).

(1) Remove the cable clamping ring furnished with the output plug, Navy Type -49160 (J302).

(2) Strip the ends of the two conductors ½-inch as shown in Figure 2-7.

(3) Insert the cable into the connector body (1 of Figure 2-7) and pull the two conductors through the tapped hole in the body.

(4) Clamp the cable in place with the clamp (2 of Figure 2-7). Two machine screws and lockwashers are furnished for this purpose.

(5) Insert the insulating washer (3 of Figure 2-7) over the two conductors and into the bottom of the tapped hole in the connector body.

(6) Assemble bushing, locknut, coupling nut (4, 5 and 6 of Figure 2-7) and plug Navy Type -49160. Insert the conductor leads into pins No. 2 and No. 3 as shown in Figure 2-7.

(7) Before tightening the locknut (5 of Figure 2-7) note positions of the key and connections. Be sure that the positions agree with Figure 2-7. Tighten the locknut (5 of Figure 2-7).

(8) Prick-punch the connector body adjacent to the locknut to prevent it from turning.

(9) Solder leads to pins No. 2 and No. 3.

<u>SECTION V – MAINTENANCE</u>

SECTION V
MAINTENANCE

1. GENERAL.

a. The Models RBB/RBC radio receiving equipments have been carefully adjusted and tested by the manufacturer before shipment. If the equipment is properly installed and operated, servicing over a long period will not be necessary. When trouble does develop localize the source before changing any adjustments other than panel controls, or before disturbing the internal wiring and mounting of components. It is recommended that any major adjustments or repairs be made in a laboratory where proper tools and measuring instruments are available in order that adjustments may be made, and performance measured, with the extreme accuracy necessary to obtain the full performance capabilities of equipment. Many of the minor adjustments and replacements, however, may be made in the field, utilizing relatively simple equipment.

2. TEST EQUIPMENT.

a. The following equipment or its equivalent should serve for localizing most of the possible troubles which may be encountered in the Models RBB/RBC radio receiving equipments:

(1) Model OE Receiver Analyzing Equipment.

(2) Models LN and LP Standard Signal Generator.

(a) A standard IRE dummy antenna is included with LP or may be constructed in accordance with instructions in the Communication Equipment Maintenance Bulletin.

(3) Model OZ Vacuum Tube Analyzing Equipment.

b. The following additional equipment is required for alignment:

(1) 0-200 microampere DC meter.

CAUTION

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

3. GENERAL CARE.

a. With ordinary care little attention will be required to keep this equipment in operation. However, to insure continued optimum performance, it is recommended that a regular schedule of inspection be established. The recommended inspection periods and points to be observed are given in Table 5-1.

THE ATTENTION OF MAINTENANCE PERSONNEL IS INVITED TO THE REQUIREMENTS OF CHAPTER 67 OR 68 OF THE "BUREAU OF SHIPS MANUAL," OF THE LATEST ISSUE.

TABLE 5-1
INSPECTION PERIODS AND CHECK POINTS

Interval	Check Point
DAILY	Make visual inspection of antenna system. Check operation of receiver.
WEEKLY	Clean equipment inside and out. Record meter readings in log.
MONTHLY	Inspect all rubber used for shock mounting, replacing where necessary due to cracking or resilience. Install a complete set of tested vacuum tubes in the equipment. Test the replaced tubes and retain satisfactory tubes for further use. Measure receiver noise level in each band in accordance with current instructions issued by the Bureau of Ships. Lubricate all sliding mechanical contacts lightly with nonfluid mineral oil or petrolatum. Make insulation test to ground (with megger) of antenna and power supply circuits.

TABLE 5-1 (Continued)

Interval	Check Point
QUARTERLY	Measure the sensitivity of the receiver unit in accordance with the current instructions of the Bureau of Ships, and record in log results of tests prior to and after corrective action. Check operation of all equipment controls. Toggle switches which are not frequently used should be operated in order to clean the contacts. Potentiometers usually open circuit due to wear. The only remedy for a condition of this nature is to replace the defective potentiometer with one supplied in the spare parts box. Check the calibration of the receiver. Measure the noise level and sensitivity as outlined in Paragraph 4d. Check inventory of vacuum tubes and requisition necessary tubes to fill allowance.
SEMI-ANNUAL	Check alignment of the receiver in accordance with current instructions of the Bureau of Ships. Record condition found prior to and after alignment. The alignment procedure to be followed is given in Paragraph 5 of this section. Make inventory of spare parts boxes and contents.

4. TROUBLE SYMPTOMS AND CIRCUIT ANALYSIS.

a. 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 deviations from normal operation of the equipment usually will assist in localizing the source of trouble. Possible causes of any troubles which might develop, and the symptoms by which they may be recognized, are described in Table 5-2.

TABLE 5-2

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 7-19 and 7-25, 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 Paragraph 4e, Tables 5-13 to 5-16.
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 7-19 and 7-25, 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 4d. 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.

TABLE 5-2 (Continued)

Symptoms	Causes
Low Maximum Noise Output and No Signal Output.	Defect in first (heterodyne) oscillator circuit. Replace oscillator tube (V103 or V203) with one of known condition. Refer to Figures 7-19 and 7-25, and check components of this circuit. Refer to Table 5-19 and check to see that resistance measurements obtained agree with those given.
Low Signal - to - Noise Ratio is Obtained with Normal Output Readings (see Paragraph 4c).	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 Figure 2-4. **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 the noise measurement tabulation in Paragraph 4c.
No Output or Low Sensitivity for Particular Control Settings.	Defect in circuit affected by particular control setting. Refer to Figure 7-19 and 7-25, 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 Paragraph 6d. 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.v.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.v.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.v.c. diode tube (V305) and associated circuits. If the "INPUT" meter operates, but trouble is still evident in the a.v.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

TABLE 5-2 (Continued)

Symptoms	Causes
No Output or Low Sensitivity for Particular Control Settings — Continued.	by reference to Paragraphs 4e and 4f. The silencer-output limiter-amplifier tube (V308), and silencer-output limiter diode tube (V309) should be checked with reference to Paragraph 4g, or replaced. 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 Paragraphs 4e and 4f. The silencer-output limiter-amplifier tube (V308), noise limiter-output limiter diode tube (V306), and silencer-output limiter diode tube (V309) should be checked with reference to Paragraph 4g. 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 above 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 6.
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 4c). Loose connections, imperfect shielding, or noisy tubes may be located by tapping various suspected parts.

b. VOLTAGE TABLES.—

(1) The following voltages apply to a single receiver unit operated from a rectifier power unit which is connected to a 110/115/120-volt 60-cycle supply. It is imperative that the link in the transformer primary circuit be set to correspond, as closely as possible, to the line voltage. The "RECEPTION" transfer switch (S304) should be in the "CW" position. Variations in the order of $\pm 20\%$ may be expected in the following values due to normal tube and circuit variations.

TABLE 5-3
TERMINAL VOLTAGES
("Gain" Control in the Maximum Position)
IF-AF UNIT RECEPTACLE J301
MODELS RBB/RBC EQUIPMENTS

Terminal of J301	Volts
S-P	115* — Power Switch "OFF"
A-Gnd	17*
D-Gnd	6.3*
E-Gnd	105
G-Gnd	200
B, C, or F-Gnd	0

* A-C Voltages — All others D-C.

TABLE 5-4
TERMINAL VOLTAGES
(Measured to Ground)
IF-AF UNIT TERMINAL BOARD TB308

Terminal	Model RBB Equipment		Model RBC Equipment	
	"GAIN"		"GAIN"	
	Max.	Min.	Max.	Min.
1	105	105	105	105
2	17.0*	17*	17.0*	17.0*
3	202	212	202	212
4	0	0	0	0
5	0	0	0	0
6	0	13.5	0	23
7	6.1*	6.1*	6.1*	6.1*
8	0	0	0	0
9	95	120	95	120

* A-C Voltages — All others D-C.

TABLE 5-5
COIL BOX TERMINAL VOLTAGES
(Measured to Ground)
MODEL RBB EQUIPMENT

Box Terminal	Ant. Box "GAIN" Max.	Ant. Box "GAIN" Min.	1st R-F Box "GAIN" Max.	1st R-F Box "GAIN" Min.	2nd R-F Box "GAIN" Max.	2nd R-F Box "GAIN" Min.	Osc. Box "GAIN" Max.	Osc. Box "GAIN" Min.
1	0	0	0	0	0	0	0	0
2	—	—	6.1*	6.1*	6.1*	6.1*	6.3*	6.3*
3	—	—	0	0	0	13.5	105	105
4	—	—	0	13.5	202	212		
5	—	—	202	212				

* A-C Voltages — All others D-C.

TABLE 5-6
COIL BOX TERMINAL VOLTAGES
(Measured to Ground)
MODEL RBC EQUIPMENT

Box Terminal	Ant. Box "GAIN" Max.	Ant. Box "GAIN" Min.	1st R-F Box "GAIN" Max.	1st R-F Box "GAIN" Min.	2nd R-F Box "GAIN" Max.	2nd R-F Box "GAIN" Min.	Osc. Box "GAIN" Max.	Osc. Box "GAIN" Min.
1	—	—	0	0	0	0	0	0
2	—	—	6.1*	6.1*	6.1*	6.1*	6.3*	6.3*
3	—	—	0	0	0	0	105	105
4	—	—	0	23	0	23		
5	—	—	202	212	202	212		
6	—	—			105	105		

* A-C Voltages — All others D-C.

c. NOISE OUTPUT VOLTAGES.—

(1) Tables 5-7 and 5-8 are tabulations of normal receiver background noise outputs as indicated on the "OUTPUT" meter. These voltages apply with the receiver input disconnected from the antenna, and terminated in a standard dummy antenna, shielded sufficiently to avoid any external noise pick-up. These values apply with the "GAIN" control knob at maximum, the "RADIO SELECTIVITY" control knob in the "BROAD" position, and the "RECEPTION" knob in "MOD." Considerable variation may be expected in these values due to normal tube and circuit variations.

TABLE 5-7
NOISE OUTPUT VOLTAGES — MODEL RBB EQUIPMENT
Noise Output in DB (Zero Level—60 Microwatts)

Band	Freq. mc	Overall Noise	1st R-F Tube Removed	2nd R-F Tube Removed	Osc. Plate Voltage Removed
1 LF	0.5	22	16	11	0
HF	0.84	30	24	14	0
2 LF	0.84	20	16	13	0
HF	1.41	26	20	14	0
3 LF	1.41	22	15	11	0
HF	2.37	29	21	14	0
4 LF	2.37	23	16	12	0
HF	4.00	31	23	18	0

TABLE 5-8
NOISE OUTPUT VOLTAGES — MODEL RBC EQUIPMENT
Noise Output in DB (Zero Level—60 Microwatts)

Band	Freq. mc	Overall Noise	1st R-F Tube Removed	2nd R-F Tube Removed	Osc. Plate Voltage Removed
1 LF	4.0	26	18	13	1
HF	6.45	28	22	20	1
2 LF	6.45	25	16	11	1
HF	10.3	28	24	20	1
3 LF	10.3	14	11	6	1
HF	16.5	27	20	17	1
4 LF	16.5	16	6	4	1
HF	27.0	21	16	16	1

d. SIGNAL INPUT TO VARIOUS STAGES REQUIRED TO PRODUCE STANDARD OUTPUT (6 milliwatts in 600 ohms—10 db signal-to-noise ratio when noise equals 60 microwatts. Standard output is obtained when, with a 600 ohm non-inductive load connected across the output jack and with the ADD DECIBELS switch in the +10 position, the OUTPUT meter indicates zero db).—In the following tabulations (Tables 5-9 to 5-12) considerable variation may be expected in these values due to normal tube and circuit variations.

(1) A-F Inputs Required to Produce Six Milliwatts Output (an indication of zero db on the OUTPUT meter when a 600 ohm non-inductive load is connected across the receiver output jack and the ADD DECIBELS switch is placed in the +20 position). — The following voltages (Table 5-9) apply with the "RECEPTION" transfer switch (S304) on "MOD" and the "AUDIO SELECTIVITY" switch (S305) in the "BROAD" position.

TABLE 5-9
A-F INPUTS
MODELS RBB/RBC

*Input to:	Input Volts:
1st A-F	0.15
2nd A-F	0.8
Output	1.5

*1,000 cycle signal applied to control grid of indicated tube.

(2) I-F Input Required to Produce Standard Output. — The following inputs (Table 5-10) apply with "RECEPTION" transfer switch on "MOD," "GAIN" control maximum, band 1, and with plate voltage removed from the first oscillator.

TABLE 5-10
I-F INPUT MICROVOLTS
(400 kc Signal, Modulated 30% Modulation—1000 cycles)
MODELS RBB/RBC

*Input to:	Broad	Med.	Sharp
1st Detector	38	40	25
1st I-F	190	290	220
2nd I-F	4800	10,300	9200
3rd I-F	115,000	90,000	84,000

*Apply signal to control grid of indicated tube.

(3) R-F Inputs to R-F Stages Required for Standard Output. — These inputs (see Table 5-11) apply with the "RECEPTION" transfer switch set at "MOD," "RADIO SELECTIVITY" on "BROAD" and "GAIN" control set to produce 60 microwatts noise output.

TABLE 5-11
R-F INPUT MICROVOLTS
(30% modulated)
MODEL RBB

Band	*Freq. mc	1st Det. grid	2nd R-F Box	1st R-F Box	Dummy Ant.
1 LF	0.5	320	100	24	2.3
HF	0.84	1100	150	28	3.2
2 LF	0.84	290	100	25	2.5
HF	1.41	670	100	28	3.1
3 LF	1.41	360	104	26	2.4
HF	2.37	1000	130	37	4.9
4 LF	2.37	460	110	26	3.9
HF	4.0	1200	120	28	5.3

*Modulation—1,000 cycles. Apply signal to receiver input terminals through dummy antenna (70 ohms effective shunt resistance).

TABLE 5-12
R-F INPUT MICROVOLTS
(30% modulated)
MODEL RBC

Band	Freq. mc	2nd R-F Box	1st R-F Box	Dummy Ant.
1 LF	4.0	111	15	6.8
HF	6.45	140	20	7.0
2 LF	6.45	110	10	7.2
HF	10.3	160	15	7.4
3 LF	10.3	100	9.5	8.8
HF	16.5	150	13	6.8
4 LF	16.5	130	12	8.4
HF	27	95	12	8.0

NOTE

Inputs to the first detector grid have been omitted from the table of inputs for the Model RBC equipment, since in the Model RBC equipment the oscillator excitation is fed into the first detector grid circuit. If a low impedance generator is applied to the first detector grid, the oscillator excitation is so reduced as to preclude measurement.

e. TUBE SOCKET VOLTAGES AND CURRENTS.—

(1) The following tabulations (Tables 5-13 to 5-16) indicate normal tube socket voltages and currents as measured with the Model OE Receiver Analyzing Equipment. Readings on different equipments may be expected to vary by approximately ±20% due to normal variations in components, tubes, meter resistance and calibration. The values tabulated apply for a single receiver operated from the rectifier power unit with a 110/115/120-volt a-c supply and the corresponding primary tap connection in the rectifier power unit. The receiver unit should be set on Band 1 at the nominal high frequency end of the band, "RECEPTION" transfer switch on "MOD," except as noted under "test conditions." USE LOWEST POSSIBLE VOLTAGE SCALE WHICH WILL GIVE ON-SCALE READINGS.

CAUTION

Before removing the first heterodyne oscillator tube (V103 or V203) turn off power or remove regulator tube (V106 or V206) in order to avoid overload of the potentiometer R116 or R219.

TABLE 5-13
TUBE SOCKET VOLTAGES AND CURRENTS
Preselector Unit (Voltage Measured to Ground)
MODEL RBB EQUIPMENT

Tube and Function	Pin	1	2	3	4	5	6	7	8	Test Conditions "GAIN" control setting
	Conn.	S	H	G3	G1	K	G2	H	P	
–6SK7, 1st R-F	Volts	0	6.1†	0.76	0	2.1	66	0	180	*Max.
	Ma	0		0	0	6.0	1.4		5.0	*Max.
	Volts	0	6.1†	13.5	0	13.5	85	0	208	Min.
	Ma	0		0	0	0.5	0.1	0	0.4	Min.
–6SK7, 2nd R-F	Volts	0	6.1†	0.7	0	2.0	66	0	180	*Max.
	Ma	0		0	0	5.7	1.3		4.6	*Max.
	Volts	0	6.1†	13.5	0	13.5	85	0	208	Min.
	Ma	0		0	0	0.34	0.06	0	0.3	Min.
–6AB7, Oscillator	Volts	0	6.3†	0	0	0	90	0	40	*Max.
	Ma	0		0	0	14	3.7		11	*Max.
–6AB7, Detector	Volts	0	0	0	0	7.8	160	6.1†	195	Max.
	Ma	0	0	0	0	1.2	0.2		1.1	Max.

Regulator tube, V106 (pins 1 to 4) = 10 volts a.c.
*Grid grounded.
†A-C voltages — All others d-c.

TABLE 5-14
TUBE SOCKET VOLTAGES AND CURRENTS
Preselector Unit (Voltage Measured to Ground)
MODEL RBC EQUIPMENT

Tube and Function	Pin	1	2	3	4	5	6	7	8	Test Conditions "GAIN" control setting
	Conn.	S	H	G3	G1	K	G2	H	P	
–6AB7, 1st R-F	Volts	0	6.1†	1.3	0	1.3	73	0	182	*Max.
	Ma	0		0	0	5.6	1.1		4.7	*Max.
	Volts	0	6.1†	23	0	23	208	0	211	Min.
	Ma	0		0	0	0	0		0	Min.
–6SK7, 2nd R-F	Volts	0	6.1†	1.25	0	1.25	55	0	182	*Max.
	Ma	0		0	0	5.5	1.2		4.3	*Max.
	Volts	0	6.1†	23.5	0	23.5	155	0	206	Min.
	Ma	0		0	0	1.55	0.34		1.2	Min.
–6AB7, Oscillator	Volts	0	6.3†	0	0	0	85	0	66	*Max.
	Ma	0		0	0	8.8	2.15		8	*Max.
–6SK7, 1st Detector	Volts	0	0	13	0	13	140	6.1†	194	Max.
	Ma	0	0	0	0	2.8	0.64		2.2	Max.

Regulator tube, V106 (pins 1 to 4) = 10 volts a.c.
*Grid grounded.
†A-C voltages — All others d-c.

TABLE 5-15
TUBE SOCKET VOLTAGES AND CURRENTS
IF/AF Unit, IF and CW Oscillator Section
(Voltage Measured to Ground)
MODELS RBB/RBC

Tube and Function	Pin	1	2	3	4	5	6	7	8	Test Conditions "GAIN" control setting
	Conn.	S	H	G3	G1	K	G2	H	P	
–6SK7, 1st I-F	Volts	0	0	4.5	0	4.5	95.0	6.1†	202	*Max.
	Ma	0		0	0	5.8	1.35		4.8	*Max.
	Volts	0	0	23.5	0	23.5	120.0	6.1†	212	*Min.
	Ma	0		0	0	0.24	0.04		0.2	*Min.
–6SK7, 2nd I-F	Volts	0	0	3.5	0	3.5	80.0	6.1†	182	*Max.
	Ma	0		0	0	5.8	1.27		4.8	*Max.
	Volts	0	0	23.5	0	23.5	120.0	6.1†	212	*Min.
	Ma	0		0	0	0.27	0.05		0.22	*Min.
–6SK7, 3rd I-F	Volts	0	0	2.9	0	2.9	70.0	6.1†	180	Max.
	Ma	0		0	0	5.6	1.25		4.4	Min.
	Volts	0	0	24.5	0	24.5	170	6.1†	205	Min.
	Ma	0		0	0	1.8	0.35		1.5	Max.
–6AB7, CW Oscillator	Volts	0	0	125	0	4.2	125	6.1†	145	Max.
	Ma	0		0.08	0	1.85	0.34		1.5	Max.
										"RECEPTION" transfer switch on "CW"

*Grid grounded.
†A-C voltages — All others d-c.

TABLE 5-16
TUBE SOCKET VOLTAGES AND CURRENTS
IF/AF Unit Audio System (Voltages Measured to Ground)
Models RBB/RBC

Tube and Function	Pin	1	2	3	4	5	6	7	8	Control Settings			
	Conn.	S	H	G3	G1	K	G2	H	P	"Gain"	"Reception"	"Silencer"	"Output Level"
–6SK7, 1st A-F (V307)	Volts	0	0	0	0	1.55	28.0	6.1*	68.0	Max.	"MOD"	Max.	——
	Ma	0		0	0	1.45	0.36		1.1	Max.	"MOD"	Max.	——
–6AB7, 2nd A-F (V310)	Volts	0	0	0	0	1.35	47.0	6.1*	68.0	Max.	"MOD"	Max.	——
	Ma	0		0	0	1.56	3.2		1.25	Max.	"MOD"	Max.	——
–6SK7, SIL-OL-AMP (V308)	Volts	0	0	0	0	1.4	15.0	6.1*	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*	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*	180	Max.	"MOD-AVC-SIL"	Min.	——
	Ma	0		0		0	0		0	Max.	"MOD-AVC-SIL"	Min.	——

Tube and Function	Pin	1	2	3	4	5	6	7	8	Control Settings			
	Conn.	NC	H	P	G2	G1	NC	H	K-G3	"Gain"	"Reception"	"Silencer"	"Output Level"
–6K6-GT, Output (V311)	Volts		0	192	200			6.1*	13.5	Max.	"MOD"	Max.	——
	Ma			18.5	2.8				22	Max.	"MOD"	Max.	——

Tube and Function	Pin	1	2	3	4	5	6	7	8	Control Settings			
	Conn.	S	H	PD2	KD2	PD1	NC	H	KD1	"Gain"	"Reception"	"Silencer"	"Output Level"
–6H6, NL-OL (V306)	Volts	0	0	0.4	60.0	–4.61		6.1*	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*	0.2	Max.	"CW-OL"	——	Min.
	Ma	0		0.11	0.11	0			0	Max.	"CW-OL"	——	Min.
–6H6, SIL-OL (V309)	Volts	0	0	0	0.4	0		6.1*	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*	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*	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*	160	Max.	"MOD-AVC-SIL"	Min.	Min.
	Ma	0		0.02	0.02	0.02			0.02	Max.	"MOD-AVC-SIL"	Min.	Min.
–6H6, DET-AVC (V305)	Volts	0	6.1	0	30	–0.3		0	0.02	Max.	"MOD"	Max.	Max.
	Ma	0	0	0	0	0		0	0	Max.	"MOD"	Max.	Max.

*A-C voltages—All others d-c.

f. POINT TO POINT RESISTANCE MEASUREMENTS.—

(1) The following tables (5-17 to 5-22) indicate normal point to point resistance values as measured with the Model OE Receiver Analyzing Equipment. Readings on different equipments may be expected to vary in the order of ±20 per cent. The values indicated apply when the receiver unit is **disconnected** from the rectifier power unit, and in the case of tube socket terminals, apply with the particular tube removed and all other tubes in place.

TABLE 5-17
OUTPUT PLUG J302
MODELS RBB/RBC

Terminal	Ohms
1 — Gnd.	0
2 — Gnd.	1.3
3 — Gnd.	1.3

TABLE 5-18
I-F/A-F UNIT RECEPTACLE J301
MODELS RBB/RBC

	MODEL RBB EQUIPMENT	MODEL RBC EQUIPMENT
Terminal	Ohms	Ohms
A — Gnd.	7.0	7.0
B — Gnd.	0	0
C — Gnd.	0	0
D — Gnd.	0.3	0.3
E — Gnd.	open	open
F — Gnd.	0	0
G — Gnd.	10,000	15,000
S — Gnd.	open	open
P — Gnd.	open	open

TABLE 5-19
COIL BOX TERMINALS

Box	Terminal	Band 1 Ohms	Band 2 Ohms	Band 3 Ohms	Band 4 Ohms
MODEL RBB EQUIPMENT					
Antenna	Ant.-Gnd.	4.3	2.4	1.2	0.6
	Line-Gnd.	0.2	0.2	0.2	0.2
	C149-A-Gnd.	3.0	1.6	1.0	0.6
	C149-B-Gnd.	300,000	300,000	300,000	300,000
1st R-F	Input-Gnd.	300,000	300,000	300,000	300,000
	C149-C-Gnd.	300,000	300,000	300,000	300,000
	Output-Gnd.	300,000	300,000	300,000	300,000
2nd R-F	Input-Gnd.	300,000	300,000	300,000	300,000
	C149-D-Gnd.	100,000	100,000	100,000	100,000
	Output-Gnd.	100,000	100,000	100,000	100,000
Oscillator	C149-E-Gnd.	Open	Open	Open	Open
	Output-Gnd.	Open	Open	Open	Open
MODEL RBC EQUIPMENT					
Antenna	Ant.-Gnd.	0.2	0.15	0.15	0.1
	Line-Gnd.	0.1	0.15	0.15	0.15
	C257-A-Gnd.	0.2	0.15	0.1	0.1
1st R-F	Input-Gnd.	0.2	0.15	0.1	0.1
	C257-C-Gnd.	0.2	0.15	0.1	0.1
2nd R-F	Input-Gnd.	1,400,000	1,400,000	1,400,000	1,400,000
	C257-D-Gnd.	Open	Open	Open	Open
Oscillator	C257-E-Gnd.	Open	Open	Open	Open

TABLE 5-20
TUBE SOCKET RESISTANCE MEASUREMENTS TO GROUND
(Tube Removed from Socket Under Test)
(All Other Tubes in Place)
MODEL RBB EQUIPMENT

Tube Function	Socket Pin Number								"RECEPTION" Switch Setting
	1	2	3	4	5	6	7	8	
	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	
1st R-F (V101)	0	0.3	120	300,000	340	15,000	0	15,000	"MOD"
2nd R-F (V102)	0	0.3	120	300,000	340	15,000	0	15,000	"MOD"
Oscillator (V103)	0	40	0	47,000	0	Open*	0	Open*	"MOD"
1st Det. (V104)	0	0	0	100,000	6,000	110,000	0.3	15,000	"MOD"
Regulator (V106)	Open*	No conn.	No conn.	4.5					——
1st I-F (V301)	0	0	680	220,000	680	8,000	0.3	10,000	"MOD"
2nd I-F (V302)	0	0	470	100,000	470	18,000	0.3	15,000	"MOD"
3rd I-F (V303)	0	0	470	1,500,000	470	110,000	0.3	15,000	"MOD"
CW Osc. (V304)	0	0	140,000	68,000	1,950	140,000	0.3	47,000	"CW"
1st A-F (V307)	0	0	0	3,200,000	1,000	480,000	0.3	120,000	"MOD"
SIL-OL-AMP (V308)	0	0	0	50,000	3,900	2,200,000	0.3	500,000	"CW-OL"
SIL-OL-AMP (V308)	0	0	0	50,000	950	500,000	0.3	120,000	"MOD"
2nd A-F (V310)	0	0	0	2,700,000	3,900	250,000	0.3	500,000	"MOD-AVC-SIL"
Output (V311)	No. conn.	0	10,000	10,000	1,000,000	No conn.	0.3	680	"MOD"
Det.-AVC (V305)	0	0.3	700,000	7,800	540,000	No conn.	0	15,000	"MOD"
NL-OL (V306)	0	0	Open	25,000	270,000	No conn.	0.3	2,300,000	"MOD"
SIL-OL (V309)	0	0	0	Open	1,600,000	No conn.	0.3	1,100,000	"MOD"

* These circuits are open only when the Power Unit is disconnected from the Receiver.

TABLE 5-21
TUBE SOCKET RESISTANCE MEASUREMENTS TO GROUND
(Tube Removed from Socket Under Test)
(All Other Tubes in Place)
MODEL RBC EQUIPMENT

Tube Function	Socket Pin Number								"RECEPTION" Switch Setting
	1	2	3	4	5	6	7	8	
	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	
1st R-F (V201)	0	0.3	220	1,300,000	220	140,000	0	20,000	"MOD"
2nd R-F (V202)	0	0.3	220	1,300,000	220	140,000	0	20,000	"MOD"
Oscillator (V203)	0	40	0	47,000	0.1	Open*	0.15	Open*	"MOD"
1st Det. (V204)	0	0	4,700	1,000,000	4,700	120,000	0.3	20,000	"MOD"
Regulator (V206)	4.5	No conn.	No conn.	Open*					——
1st I-F (V301)	0	0	680	220,000	680	11,000	0.3	15,000	"MOD"
2nd I-F (V302)	0	0	470	100,000	470	21,000	0.3	20,000	"MOD"
3rd I-F (V303)	0	0	470	1,500,000	470	115,000	0.3	20,000	"MOD"
CW-OSC. (V304)	0	0	140,000	68,000	1,950	140,000	0.3	52,000	"CW"
1st A-F (V307)	0	0	0	3,200,000	1,000	480,000	0.3	125,000	"MOD"
SIL-OL-AMP (V308)	0	0	0	50,000	3,900	2,200,000	0.3	500,000	"CW-OL"
SIL-OL-AMP (V308)	0	0	0	2,700,000	3,900	250,000	0.3	500,000	"MOD-AVC-SIL"
2nd A-F (V310)	0	0	0	50,000	950	500,000	0.3	125,000	"MOD"
Output (V311)	No conn.	0	15,000	15,000	1,000,000	No conn.	0.3	680	"MOD"
Det.-AVC (V305)	0	0.3	700,000	7,800	540,000	No conn.	0	15,000	"MOD"
NL-OL (V306)	0	0	Open	25,000	270,000	No conn.	0.3	2,300,000	"MOD"
SIL-OL (V309)	0	0	0	Open	1,600,000	No conn.	0.3	1,100,000	"MOD"

* These circuits are open only when the Power Unit is disconnected from the Receiver.

5. CIRCUIT ALIGNMENT.

a. GENERAL.—

(1) Under normal operating conditions the Models RBB/RBC radio receiving equipments will maintain adjustment over long periods of time. A periodic test, however, is advisable in order to insure realization of full performance capabilities of the equipment. It is recommended that tests and alignment should be performed under conditions where precision laboratory test equipment is available.

(2) A recheck of circuit alignment and adjustment is advisable, after changes have been made in tubes, components, or wiring. However, in most cases it will be necessary to readjust only the particular portions of the circuit affected by the change.

b. I-F AMPLIFIER.—To align the three i-f amplifier stages, proceed as follows:

(1) Throw the "POWER" switch to the "OFF" position.

(2) Throw the "AUDIO SELECTIVITY" switch to "BROAD."

(3) Turn the "NOISE LIMITER" knob to the "OFF" position.

(4) Turn the "FREQUENCY VERNIER," "OUTPUT LEVEL," "ANT. COMP.," and "SILENCER" knobs to zero.

(5) Turn the "ADD DECIBELS" knob to "OFF."

(6) Turn the "RADIO SELECTIVITY" knob to the "SHARP" position.

(7) Rotate the "GAIN" control knob to "95" (approximately).

(8) Turn the "RECEPTION" knob to the "MOD" position.

(9) Remove the plate supply lead (white with red and green tracer) from the first oscillator box terminal.

(10) Insert a fifty microampere meter in place of the link connector located on the i-f/a-f unit chassis between tubes V310 and V311.

(11) Apply an unmodulated 400-KC ± 0.1 per cent input signal to the grid of the first detector tube (V104 or V204 in r-f unit).

(12) Throw the "POWER" switch to "ON."

(13) Adjust the gain control of the signal generator to maintain an output reading (on the microammeter) of seven microamperes.

(14) Adjust the i-f transformers in the order T305, T304, T303, and T302 for maximum output as indicated on the microammeter. These adjustments are made by means of adjustment screws at the top and bottom of each i-f transformer.

(15) No further adjustment is required for the "MEDIUM" and "BROAD" positions of the "RADIO SELECTIVITY" switch, if the i-f transformers and circuits are operating correctly.

c. CW OSCILLATOR ALIGNMENT.—To align the cw oscillator, proceed as follows:

(1) The cw oscillator is adjusted with a 400-KC ± 0.1 per cent input signal applied to the control grid of the first detector tube (V104 or V204).

(2) The conditions are the same as specified in Paragraphs b (1) to (12) above for i-f alignment except that the "RECEPTION" knob is set on "CW."

NOTE

Be sure that the "FREQUENCY VERNIER" knob is set at zero (center scale).

(3) Adjust the inductance adjustment screw at the top of i-f transformer T306 until an audible output beat note (approximately 1000 cycles) is obtained.

(4) When the audible beat note is heard, turn the inductance adjustment screw in whichever direction is necessary to obtain zero beat; (zero) beat will be recognized as the setting from which an audible note will be heard when the adjustment screw is turned in either direction.

(5) Turn the adjusting screw clockwise until a note of approximately 1000 cycles is heard.

(6) When the note is near 1000 cycles, throw the "AUDIO SELECTIVITY" switch to "SHARP" and turn the inductance adjustment screw until the loudest signal is heard in the headphones.

(7) If an accurate source of 400 KC input signal is not available, the input signal should first be accurately tuned to the "SHARP" i-f band center with the "AUDIO SELECTIVITY" switch in the "BROAD" position.

(8) The "SHARP" position of the "AUDIO SELECTIVITY" should be used to determine the correct setting for the adjustment of T306 to produce 1,000 cycle output (Paragraph 6).

d. BAND-PASS FILTER PAD.—This adjustment, potentiometer R364, is located on the side of the i-f/a-f unit underneath the chassis (see Figure 5-1). The adjustment should be made as follows:

(1) Turn the "RECEPTION" knob to the "CW" position.

(2) Throw the "AUDIO SELECTIVITY" switch to the "SHARP" position.

(3) Turn the "NOISE LIMITER" knob to "OFF."

(4) Turn the "OUTPUT LEVEL," "SILENCER," "ANT. COMP.," and "FREQUENCY VERNIER" knobs to zero.

(5) Turn the "RADIO SELECTIVITY" knob to "BROAD."

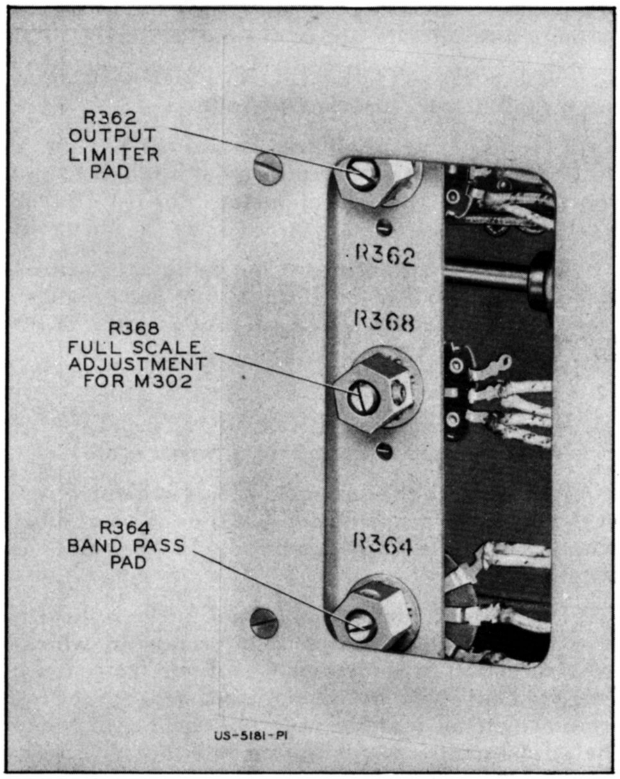


Figure 5-1 — Models RBB/RBC Radio Receivers (Side View of Chassis Showing R362, R364, and R368)

(6) Throw the "POWER" switch to "ON."

(7) While holding the "ADD DECIBELS" knob in the "DIRECT" position, adjust the "GAIN" control knob until the "OUTPUT" meter indicates zero db (i. e., 60 microwatts).

(8) Apply an unmodulated signal at the receiver input of such level as to produce six milliwatts (zero db on the "OUTPUT" meter with "ADD DECIBELS" switch at +20) output at 1000 cycles.

(9) Throw the "AUDIO SELECTIVITY" switch to "BROAD."

(10) Adjust potentiometer R364 to obtain an output 4 db lower than the output obtained in the "SHARP" position.

e. OUTPUT LIMITER PAD.—This adjustment, potentiometer R362, is located on the side of the i-f/a-f unit underneath the chassis (see Figure 5-1). The adjustment should be made as follows:

(1) Turn the "RECEPTION" knob to "CW."

(2) Turn the "OUTPUT LEVEL" control knob to maximum.

(3) While holding the "ADD DECIBELS" knob in the "DIRECT" position, adjust the "GAIN" control knob until the "OUTPUT" meter indicates zero db (i. e., 60 microwatts).

(4) Set the "ADD DECIBELS" switch at "+20."

(5) Apply an unmodulated signal at the receiver input of the proper level to produce an output of +16 db at 1000 cycles with a reference level of 60 microwatts.

(6) Turn the "RECEPTION" knob to "CW-OL."

(7) Adjust potentiometer R362 to obtain an output 4 db higher than the output obtained in the "CW" position.

f. REGULATOR TUBE (6-8B) ADJUSTMENT.—

(1) The adjustment for this tube is a potentiometer (R116 or R219) that is mounted on a bracket located on the under side of the r-f unit in the front right-hand corner. Connect an a-c voltmeter across the heater terminals of the heterodyne oscillator tube (V103 or V203). These terminals are numbers one and two of the terminal board on the oscillator coil box. Adjust R116 or R219 to obtain 6.3 volts ±5 percent oscillator heater voltage. Then vary the a-c line voltage plus and minus ten percent and note heater readings. Allow about five minutes for stabilization after each change before taking readings. One method of varying the line voltage is to change the link connector in the rectifier power unit from 110- to the 120-volt tap. Vary the adjustment of R116 or R219 to obtain as near constant heater voltage as possible for variations in the a-c supply voltage, keeping the heater voltage within the limits of 6.3 volts, ±5 percent. If the line voltage variation was accomplished by changing the rectifier power unit link position, be sure to return it to its proper position.

g. FIRST HETERODYNE OSCILLATOR ALIGNMENT. — To align the first heterodyne oscillator of the Models RBB/RBC radio receiving equipment, proceed as follows:

(1) Turn the receiver on its right side i. e., with the i-f/a-f section on the bottom.

(2) Turn the "RECEPTION" knob to the "MOD" position.

(3) Turn the "RADIO SELECTIVITY" knob to "SHARP."

(4) Turn the "GAIN" control knob to 95 (approximately).

(5) Turn the "ANT. COMP.," "OUTPUT LEVEL," "SILENCER," and "FREQUENCY VERNIER" knobs to zero.

(6) Turn the "NOISE LIMITER" knob to "OFF."

(7) Throw the "AUDIO SELECTIVITY" switch to "BROAD."

(8) Throw the "POWER" switch to "ON."

(9) Turn the "ADD DECIBELS" knob to the "20" position.

(10) Set the signal generator and receiver tuning dial to 0.84 megacycles (RBB) or 6.45 megacycles (RBC). Note: The "HF" adjustments should be made first, then the "LF" (see charts in Figures 5-2 and 5-3).

(11) Apply a modulated input signal (approximately 1,000 cycles) at the receiver antenna terminal, or second r-f box input terminal if the r-f system is misaligned.

(12) Adjust the output of the signal generator until the "output" meter of the receiver indicates zero db (6 milliwatts).

(13) Adjust capacitor C145 or C253, by means of the adjustment screw (see Figures 5-2 and 5-3 for location) until the indicator of the "OUTPUT" meter starts to rise. If the indicator starts to fall, reverse the rotation of the adjustment screw.

(14) Readjust the output of the signal generator until the receiver "OUTPUT" meter again indicates zero db (6 milliwatts).

(15) Repeat (13) and (14) above until the indicator of the "OUTPUT" meter no longer rises. Final adjustment should be made at the "HF" end of the band. Leave the indicator at zero db.

(16) Set the signal generator and receiver tuning dial to 0.5 megacycles (RBB) or 4.0 megacycles (RBC).

(17) Adjust the transformer T113 or T213, by means of the adjustment screw (see Figures 5-2 and 5-3) until the indicator of the "OUTPUT" meter starts to rise. If the indicator starts to fall, reverse the rotation of the adjustment screw.

(18) Readjust the output of the signal generator until the receiver "OUTPUT" meter again indicates zero db (6 milliwatts).

(19) Repeat (17) and (18) above until the indicator of the "OUTPUT" meter no longer rises. Final adjustment should be made at the "HF" end of the band.

(20) Align each band in the manner described above with reference to Figures 5-2 and 5-3 for the proper transformers and capacitors to be adjusted.

h. 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. This is checked in the following manner: After setting the oscillator, increase the input signal level and vary the input frequency 800 KC above or 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.

i. NEUTRALIZING ADJUSTMENT (MODEL RBC).—This adjustment is made at 27 megacycles after aligning the Band No. 4 heterodyne oscillator (see Paragraphs 5g. and h. above). Proceed as follows:

(1) Turn the "RECEPTION" knob to "CW."

(2) Rotate the "GAIN" control knob to 95 (approximately).

(3) Turn the "ADD DECIBELS" knob to the "+20" position.

(4) Throw the "AUDIO SELECTIVITY" switch to "BROAD."

(5) Turn the "RADIO SELECTIVITY" knob to "BROAD."

(6) Turn the "NOISE LIMITER" knob to "OFF."

(7) Turn the "ANT. COMP.," "FREQUENCY VERNIER," "OUTPUT LEVEL," and "SILENCER" knob to zero.

(8) Turn the "POWER" switch "ON."

(9) Apply an unmodulated cw input signal to the receiver antenna connections of sufficient level to produce approximately 6 milliwatts output (zero db on the "OUTPUT" meter with the "ADD DECIBELS" switch at "+20").

(10) Tune capacitor C252 through resonance and note the output beat note variation.

(11) Adjust L201 for minimum beat note variation.

(12) After completing this adjustment, realign the heterodyne oscillator for Band No. 4 (see Paragraphs 5g. and h.).

j. R-F AMPLIFIER ALIGNMENT.—To align the r-f amplifier and antenna input stages, proceed as follows:

(1) Turn the "RECEPTION" knob to "MOD."

(2) Turn the "RADIO SELECTIVITY" knob to "SHARP."

(3) Turn the "FREQUENCY VERNIER," "OUTPUT LEVEL," and "SILENCER" knobs to zero.

(4) Turn the "NOISE LIMITER" to "OFF."

(5) Throw the "POWER" switch to "ON."

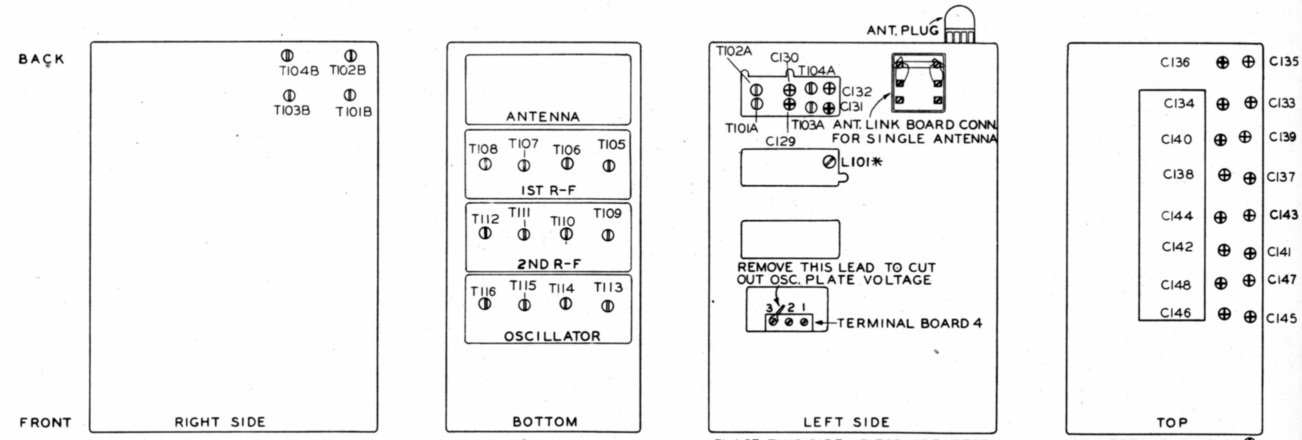
(6) Throw the "AUDIO SELECTIVITY" to "BROAD" or "SHARP."

(7) While holding the "ADD DECIBELS" knob in the "DIRECT" position, adjust the "GAIN" control knob until zero db (60 microwatts) is indicated on the "OUTPUT" meter. The setting of the "GAIN" control knob will be approximately 95.

(8) Turn the "ADD DECIBELS" knob to "+20."

(9) Turn the "ANT. COMP." knob to zero (center of scale).

(10) Set the receiver antenna link for single receiver operation from an antenna (see Figure 2-4).



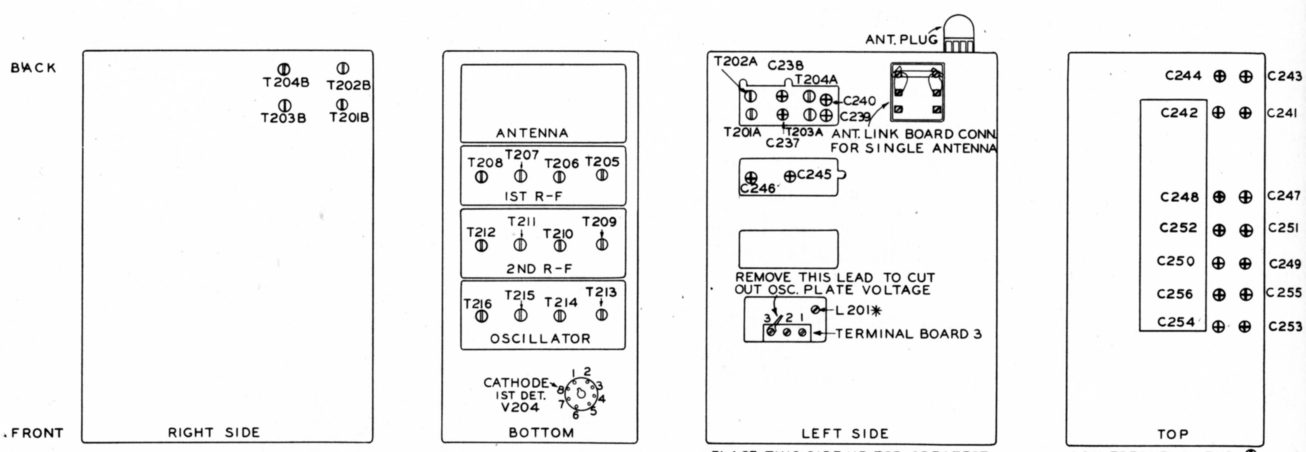
	BAND 1		BAND 2		BAND 3		BAND 4	
	LF 0.5	HF 084	LF 0.84	HF 1.41	LF 1.41	HF 2.37	LF 2.37	HF 4.00
1ST HETERODYNE OSCILLATOR	T113	C145	T114	C146	T115	C147	T116	C148
ANTENNA BOX ANTENNA	T101A	C129	T102A	C130	T103A	C131	T104A	C132
LINK	T101B	C133	T102B	C134	T103B	C135	T104B	C136
1ST R-F BOX	T105	C137	T106	C138	T107	C139	T108	C140
2ND R-F BOX	T109	C141	T110	C142	T111	C143	T112	C144

PLACE THIS SIDE UP FOR GREATEST ACCESS TO ALL SIDES DURING ALIGNMENT.

*SEE PARAGRAPH 5L

LOW FREQUENCY END=⦶
HIGH FREQUENCY END=⊕

Figure 5-2 — Model RBB Radio Receiver, Circuit Alignment (T-617625)



	BAND 1		BAND 2		BAND 3		BAND 4	
	LF 4.0	HF 6.45	LF 6.45	HF 10.3	LF 10.3	HF 16.5	LF 16.5	HF 27.0
1ST HETERODYNE OSCILLATOR	T213	C253	T214	C254	T215	C255	T216	C256
ANTENNA BOX ANTENNA	T201A	C237	T202A	C238	T203A	C239	T204A	C 240
LINK	T201B	C241	T202B	C242	T203B	C243	T204B	C244
1ST R-F BOX	T205	C245	T206	C246	T207	C247	T208	C248
2ND R-F BOX	T209	C249	T210	C250	T211	C251	T212	C252

PLACE THIS SIDE UP FOR GREATEST ACCESS TO ALL SIDES DURING ALIGNMENT.

*THIS ADJUSTMENT IS MADE AT 27MC AFTER ALIGNING THE BAND #4 HETERODYNE OSCILLATOR. (SEE PARAGRAPH 5i.

LOW FREQUENCY END=⦶
HIGH FREQUENCY END=⊕

Figure 5-3 — Model RBC Radio Receiver, Circuit Alignment (T-617618)

(11) Apply a modulated input signal (approximately 1,000 cycles) at the receiver input through the standard dummy antenna.

(12) Adjust the output of the signal generator until zero db (6 milliwatts reads zero db with the "ADD DECIBELS" switch set at "+20") is indicated on the "OUTPUT" meter.

(13) The alignment frequencies and adjustments are listed in Figures 5-2 and 5-3. The "HF" adjustments should be made first, followed by the "LF" adjustment. Make final adjustment at the "HF" end.

(14) Adjust the proper transformers and capacitors as previously described in Paragraph 5g. (see charts in Figures 5-2 and 5-3).

NOTE 1

MODEL RBB

Connect a 1,000-ohm resistor in parallel with capacitor C149-B while making "ANT." adjustments, and in parallel with capacitor C149-A while making "LINK" adjustments.

NOTE 2

MODEL RBC

For final accurate alignment of the second r-f trimmer capacitor (C252) for Band 4, a d-c voltmeter should be connected from the cathode of detector tube V204 to ground (see Figure 5-3). Remove the oscillator plate voltage. Apply a sufficient input to obtain a slight change in the indication on the voltmeter. Adjust capacitor C252 until a maximum indication is obtained on the voltmeter.

k. BAND SPREAD ADJUSTMENT (MODEL RBB).—

(1) After aligning Band 1, set the receiver dial at 0.5 mc, and adjust the knobs and input signal as described in Paragraph 5j. above. Turn the adjustment screw of transformer T105 clockwise until the receiver output is decreased 1 db. Turn the adjustment screw of transformer T109 counter-clockwise until the receiver output is decreased 1 db. Realign capacitors C137 and C141 at 0.84 mc.

l. I-F REJECTION (MODEL RBB). —

(1) After the adjustments of Paragraphs 5j. and k. above have been made, reset the receiver dial to 0.5 mc and the other controls as specified in Paragraph 5j. Apply a 400 KC input, which is 30 percent modulated at 1000 cycles, to the receiver antenna terminal through the standard dummy antenna. The input level should be approximately two volts. Adjust the inductance L101 for minimum output.

m. "INPUT" METER ADJUSTMENT.—

(1) Check the "INPUT" meter adjustment frequently if the instrument is used to measure signal input voltages.

(2) Input readings and adjustments are made with the "RADIO SELECTIVITY" knob on "SHARP" and the "RECEPTION" knob on "MOD-AVC."

(3) Turn the "ANT. COMP.," "FREQUENCY VERNIER," "GAIN," "SILENCER," and "OUTPUT LEVEL" knobs to zero.

(4) Turn the "NOISE LIMITER" and "ADD DECIBELS" knobs to "OFF."

(5) Throw the "POWER" switch to "ON."

(6) With no signal input, adjust the "ZERO SET" knob for zero meter reading.

(7) With a 10,000 microvolt unmodulated signal applied to the receiver antenna connection through the standard dummy antenna (see Paragraph 2b. of this section), adjust potentiometer R368 for a deflection of 80 db. The potentiometer R368 is located on the side of the i-f/a-f unit underneath the chassis (see Figure 5-1). Repeat the above procedure until the meter readings are correct at both of these points.

6. MECHANICAL MAINTENANCE.

a. GENERAL.—

(1) The Models RBB/RBC radio receivers normally require very little mechanical adjustment. However, when it becomes necessary to separate or remove any section of the receivers, refer to the following paragraphs (b. to j.).

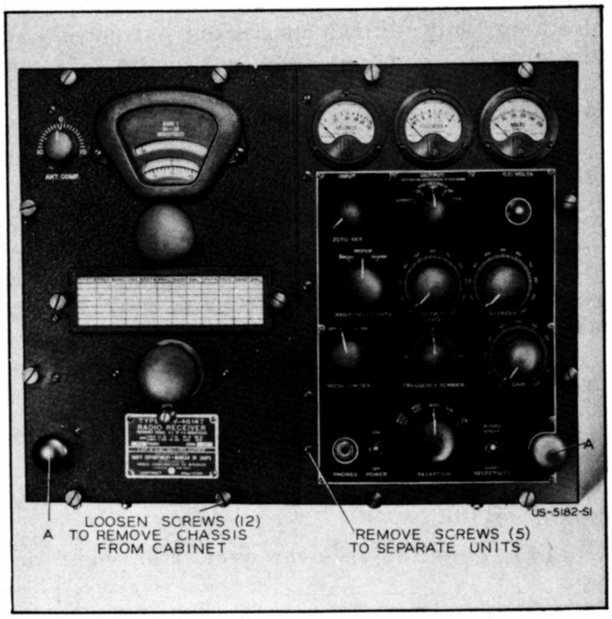


Figure 5-4 — Models RBB/RBC Radio Receivers (Front Panel View)

b. REMOVAL OF CHASSIS FROM CABINET.—

(1) Disconnect the antenna, audio output, and interconnecting cable plugs from their receptacles at the rear of the receiver.

(2) Loosen the twelve panel thumbscrews by turning them approximately six turns. These thumbscrews are of the captive type and do not release entirely (see Figure 5-4).

(3) Take hold of the two round knobs, located on the front of the receiver (see A of Figure 5-4), and pull the chassis out part way, until the stops strike. These stops (see Figure 5-5) may be released by pressing them through the holes on both sides, near the bottom.

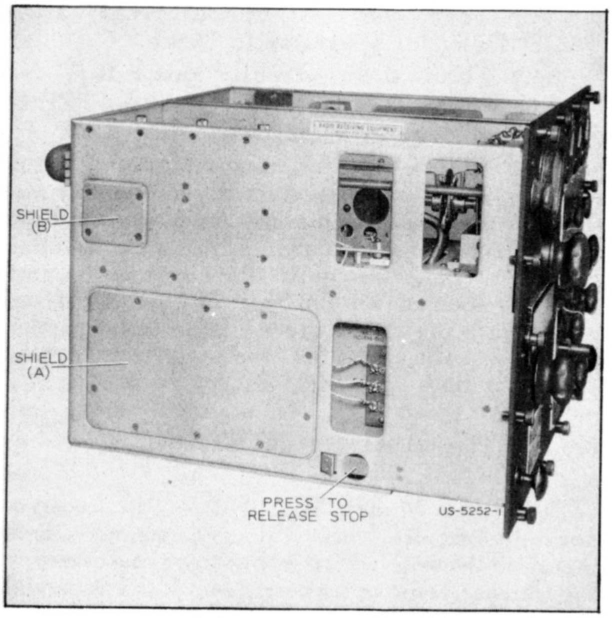


Figure 5-5 — Models RBB/RBC Radio Receivers (Left Side of Chassis)

(4) Pull the chassis completely out and set it on a level surface.

c. SEPARATION OF I-F/A-F AND R-F UNITS. —In the following discussion, it is assumed that the receiver chassis has been removed from the cabinet. The i-f/a-f and r-f units may be separated in the following manner:

(1) Turn the receiver chassis over, i. e., with the r-f boxes on top.

(2) Remove the two shields that are now on top (see Figure 5-5).

(3) Disconnect the power leads on terminal board TB308.

(4) Turn the receiver over, i. e., right side up.

(5) Disconnect the lead located on top of the receiver (see Figure 5-6).

(6) Disconnect the link connecting the two units (see Figure 5-6).

(7) Remove the two screws in each of the two support brackets.

(8) Remove the five screws located on the left-hand side of the i-f/a-f front panel (see Figure 5-4).

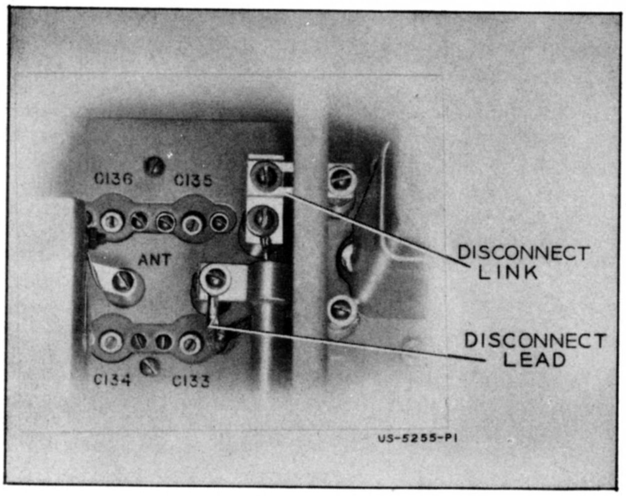


Figure 5-6 — Models RBB/RBC Radio Receivers (Top View of Chassis, Center Rear Section)

(9) Remove the four encircled screws located on the rear center of the receiver (see Figure 5-7). This will allow the two units to be separated. The intermediate partition should remain on the r-f unit.

d. REMOVAL OF R-F BOX SUB-ASSEMBLIES.—To remove any or all of the r-f box subassemblies from the r-f unit proceed as follows:

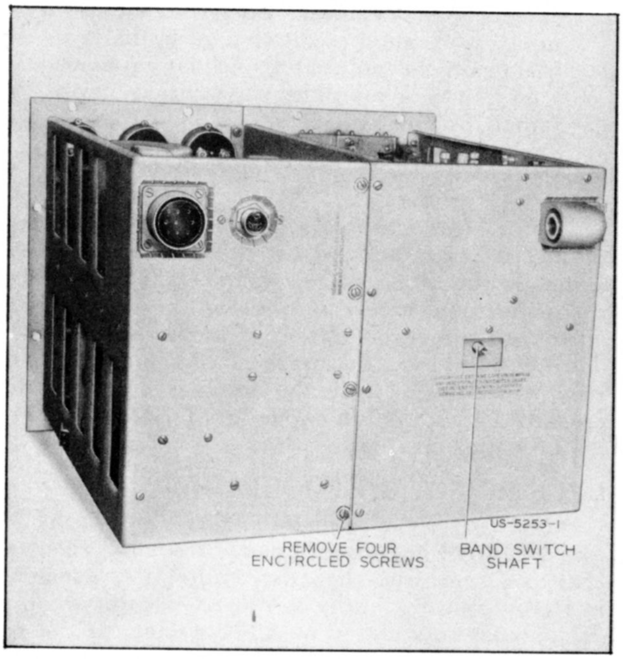


Figure 5-7 — Models RBB/RBC Radio Receivers (Rear View of Chassis)

(1) Remove the receiver chassis from its cabinet (see Paragraph 6b.).

(2) Place the receiver chassis on its right side (with the i-f/a-f unit on the bottom).

(3) Remove the bottom shield plate on the r-f unit.

(4) Turn the band switch to Band 2.

(5) Loosen the band switch coupling set-screw.

(6) Pull out the square band switch shaft located at the rear of the receiver chassis (see Figure 5-7). Use a No. 6-32 screw for the tapped hole in the end of the shaft.

CAUTION

Do not twist or turn the shaft while removing it.

(7) Remove the larger cover (A of Figure 5-5) on the side of the preselector unit frame. It is necessary to remove only this cover when removing the r-f boxes on the Model RBC receiver and removing the r-f boxes or antenna box on the RBB equipment.

(8) Loosen the screws on the terminal boards (TB1, TB2, TB3, and TB4) enough to allow removal of the spade terminals.

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

(10) The above 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, allowing the box to be removed from the bottom of the set.

e. REPLACEMENT OF R-F BOX SUB-ASSEMBLIES.—To replace any or all of the r-f box sub-assemblies in the preselector unit, the following procedure is necessary:

(1) Make sure that the dial mechanism is set on Band No. 2 and the switch rotor is in Band No. 2 position as shown in Figure 5-8.

CAUTION

Switches must be properly oriented in accordance with the above instructions before removing or inserting the switch shaft.

(2) Insert the box against the bottom of the chassis and put in the four mounting screws from the top, but do not tighten them completely. Carefully insert the switch shaft through the boxes, but do not rotate the shaft more than a few degrees, or sufficient to go through the wafers in different boxes and enter the coupling in the dial mechanism. It may be necessary to shift the box sideways slightly, to allow the shaft to go through freely. After the shaft is in place the four mounting screws and coupling set-screw must be tightened.

(3) The steps (9), (8), (7), (5), (3), and (1) of Paragraph 6d. should then be reversed, completing the reassembly.

f. REPLACEMENT OF BAND SWITCH WAFER IN R-F BOX.—

(1) To replace or repair a band switch wafer

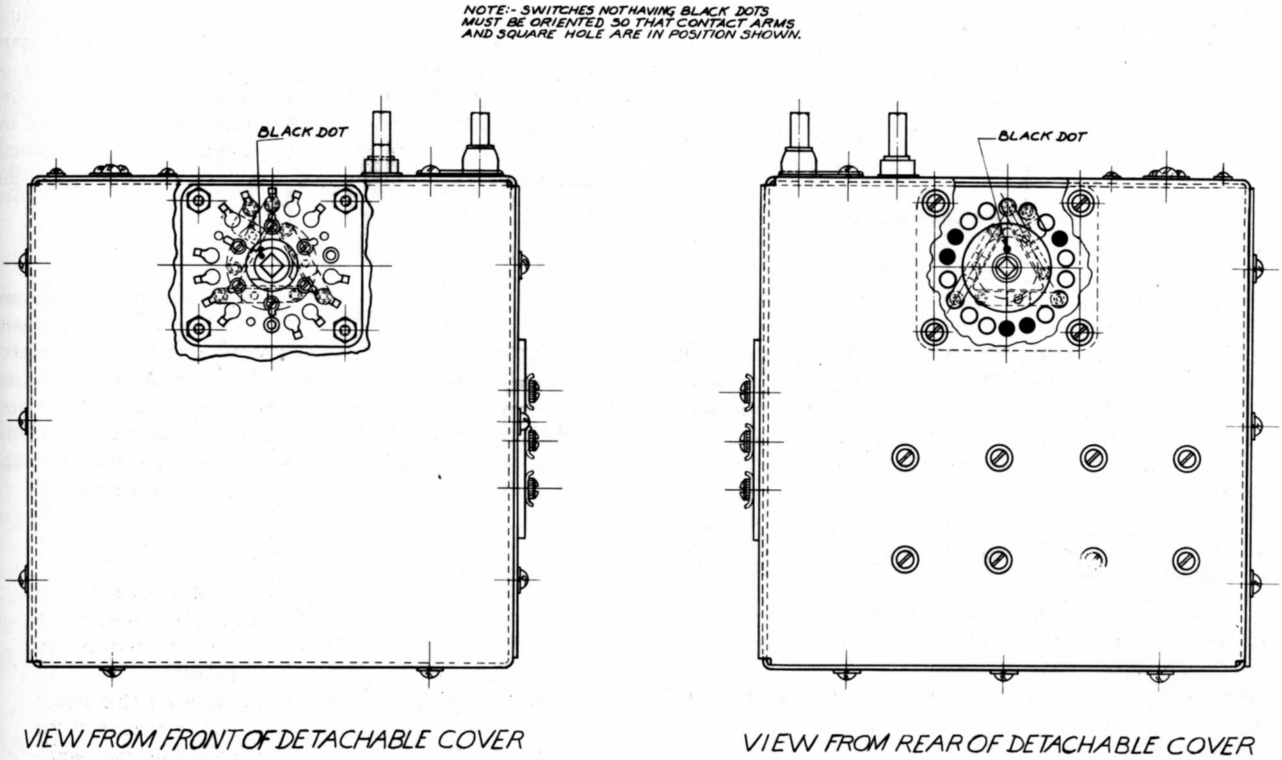


Figure 5-8 — Models RBB/RBC Radio Receivers, Preselector Unit Orientation of Range Switch Rotor Band for No. 2 Position (P-721574) in an r-f box, it is necessary to remove the box as outlined in Paragraph 6d. and remove the screws which hold the cover on the box. The number of wafers per box varies from one per box for the r-f boxes, two per box for the oscillator and Model RBB antenna box, to three per box for the Model RBC antenna box.

(2) Most switch rotor repairs may best be accomplished by removing most of the component parts from the box completely wired, by removing the mounting screws. 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.

(3) The 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 1/4 and 9/32 of an inch from the mounting surface of the contact arm. This insures sufficient contact pressure when the rotor is replaced. The silver contacts on the rotor arms must all seat near the center of the stator contact.

(4) If the switch wafer is replaced as a unit, unsolder all connections to the wafer, noting the dress of the wires so that they may be replaced as near the same as possible.

(5) 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.

(6) Reassemble all the component parts, leaving the mounting screws slightly 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 tight enough to just hold the wafers. Assemble the box in place in the receiver chassis, using two screws, and insert the shaft through the boxes, shifting the wafer or box as necessary to align the wafer rotor. Remove the shaft and box carefully, and 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.

g. R-F GANG TUNING CAPACITOR ASSEMBLY.—

(1) The gang tuning capacitor (C149 or C251) is constructed of low temperature coefficient material and is mounted on an aluminum chassis in such a manner that it is rigidly mounted at the front end and has an expansion or spring tension mounting at the rear.

(2) To remove the gang capacitor, set the tuning dial at zero and loosen the coupling set-screws. The screw connections to the r-f boxes and the three mounting screws should be removed. Loosen the screws holding the spring contact at the top rear. Lift the capacitor out of the receiver chassis.

(3) Extreme care must be exercised in handling the tuning capacitor assembly so as not to disturb its precision capacity alignment. Inspection openings fitted with snap covers are provided along the sides of the unit. The external shield-cover cannot be removed without disturbing the alignment.

CAUTION

Do not remove the external shield cover from the tuning capacitor.

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

(5) To reset the coupling, tighten the set-screws on the capacitor shaft with approximately half of the coupling over the end of each shaft. Set the dial mechanism against the zero stop, and 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, and the indication on the calibrated scales should be correct. Turn back the dial mechanism beyond zero to re-engage the stop.

h. CW OSCILLATOR.—

(1) The cw oscillator is on a separate chassis which is mounted on top of the i-f/a-f chassis, and may be removed by unsoldering two connections and a shield ground from a small terminal board and a 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.

NOTE

On Models RBB-1/RBC-1 radio receivers from Serial No. 1001 and above and all Models RBB-2/RBC-2 radio receivers, the cw oscillator tuning capacitor (C301) is mounted on the under side of the main chassis. Therefore it is not necessary to uncouple this unit to remove the cw oscillator chassis. However, it is necessary to unsolder the two connections to this capacitor.

(2) Replace the chassis in the reverse order, tightening the coupling set-screw, and turning the control knob to insure line-up before tightening the four mounting screws.

(3) With the "FREQUENCY VERNIER" knob set to "10" in the counter-clockwise position the plates of the cw oscillator variable capacitor should be at maximum capacity.

i. BAND-PASS FILTER.—

(1) The i-f/a-f portions of the receivers are identical, except for electrical characteristics of the band-pass filters. These are interchangeable mechanically and may be changed by loosening the three terminal screws, removing the spade terminals, and removing the four mounting screws.

j. TUBE SOCKETS AND SPARE CONTACTS.—

(1) Spare tube sockets and spare contacts are furnished for all but the one four-pin socket where only a spare socket is furnished. If any octal type tube socket contact needs replacement, it is necessary only to unsolder the connections to that contact, clean off any excess solder, straighten the contact, and remove it from the top of the socket.. In putting in the new contact, insert it through the top, and give it a slight bend at the bottom of the socket.

k. LUBRICATION.—

(1) Some parts of the dial mechanism may require cleaning and lubricating periodically. Remove dirt or dust from the gears. Lubricate the gear teeth by coating them lightly with oil or grease. Oil may be added to the control shaft bearing, and a small amount of oil may be added to the ends of the idler gear hub and the hubs of the concentric dial bearing, and condenser drive shaft bearing.

(2) Apply a small quantity of lubrication to the bevel gears and shaft bearings of the cw oscillator drive approximately once a year.

NOTE

On Models RBB-1/RBC-1 radio receivers Serial No. 1001 and up and on all Models RBB-2/RBC-2 radio receivers the bevel gears have been removed and replaced with a direct drive.

(3) The main gang tuning capacitor and the antenna and cw oscillator trimmer capacitor will seldom require oiling.

(4) The band change switch wafers have some lubrication on the center hubs at manufacture which will last for the useful life of the equipment. The silver-faced contacts must not be lubricated with ordinary oil or grease. If undue cuttings should appear, put a minute quantity of vaseline on the contacts.

(5) Use a good grade of non-gumming oil or grease, such as Grade I of Navy Specification 14 G1, in lubricating.

CAUTION

Under no circumstances should any abrasive material such as emery cloth, steel wool, etc., be used in or about any part of the receiver.

l. DIAL MECHANISM.—If it is necessary to take the dial mechanism apart, remove it from the chassis along with the front panel (see Paragraph 6c.). In order to remove the front panel, loosen the set-screws of the antenna trimmer shaft coupling, set-screws of the main tuning capacitor, and 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 by the following steps:

(1) Remove the dial escutcheon, bandswitch knob, the tuning-shaft knob, and the four mounting screws.

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

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

(4) Detach the mask from its shaft.

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

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

m. REASSEMBLY.—To reassemble the center gears and dials, reset the split gear tensions as follows:

(1) Compress the gear springs approximately one tooth.

(2) Carefully remesh the teeth at the former setting. This will cause the stop to operate at zero on the linear scale.

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

(4) Adjust the wire tension taut, and repin the dial mask.

(5) 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. Both the dial drive and band switch drive should turn without evidence of binding, after tightening all of the mounting screws.

7. METER REPLACEMENTS.

a. The following list indicates types of meters suitable for replacement in Models RBB/RBC equipments:

AWS or Navy Type No.	Symbol Desig.	Description	RCA Dwg. No.
– 22354	M301	Voltmeter 0-250 v dc....................	M-421740-2
MR25Y300DCVV	M301	Voltmeter 0-300 v dc....................	K-883928-2
– 22355	M302	Input meter 0-120 db	M-421740-1
	M302	Input meter 0-120 db AWS case	
MR25Y1R5DCVV	M302	Voltmeter 0-1.5 v dc	
– 22353	M303	Output meter 0.6 v zero level, –10/0/5 db....	K-864314-1
MR25Y126SPEC	M303	Output meter 0.6 v zero level, –10/0/5 db....	K-883928-1

b. Note that A.W.S. meter cases are slightly larger in diameter than the alternate Navy Types listed:

	Case Body Dia.	Mounting Hole Circle Radius
AWS Types	2.21 in.	1.218 in.
Navy Types	2 1/16 in.	1.156 in.

c. When it becomes necessary to replace a Navy Type with an A.W.S. Type (including meter M-427798-1 above which has an A.W.S. case), the dimensions necessitate enlarging the receiver panel openings and deepening the mounting screws slots. This applies to equipments where the mountings have not previously been adapted for the A.W.S. case dimensions.

d. If MR25Y1R5DCVV type is used for replacement, note that this meter employs an 0–1.5 v scale which may be translated into db by use of the table given below. In making calibration adjustments with this type meter, the procedure of Paragraph 6m. is followed, except that R368 is adjusted for a deflection of 0.84 volts instead of 80 db.

Volts	Db
.00	0
.10	10
.28	20
.41	30
.52	40
.62	50
.70	60
.77	70
.84	80
.89	90
.94	100
.975	110
1.00	120

8. RECTIFIER POWER UNIT.

a. GENERAL.—

(1) The rectifier power unit has been carefully constructed and tested by the manufacturer before shipment and should remain in an operative condition over a reasonably long period of time. However, in case service is required at any time, every effort should be made to perform the work in a laboratory properly equipped with the necessary servicing tools. Moreover, the service man should refrain from disturbing the wiring of the unit until he has definitely determined that the difficulty being experienced is not the result of external or normal deteriorating influences, such as worn-out vacuum tubes, improper operating voltages, blown fuses, external noises, etc. Furthermore, in view of the fact that in actual use, the rectifier power unit becomes an integral part of the complete receiving system, it is obvious that to a great extent, trouble location and remedy is largely dependent on symptoms manifested in the receiver section of the installation. When trouble-shooting, therefore, additional reference should be made to Paragraphs 1 to 7 of this section.

(2) Equipment tests required for the accurate diagnosis of trouble may be made with the Model OE Radio Receiver Analyzing equipment or the following:

(a) Multi-range D-C Voltmeter, 0-300 volts, 1000 ohms-per-volts or higher.

(b) Multi-range A-C Voltmeter, 0-150 volts.

(c) Continuity tester, preferably ohmmeter.

b. OUTPUT (LOAD) VOLTAGES.—

(1) If trouble has been traced to the rectifier power unit, the output voltages at the receiver end of the cable should be measured and compared with the following table (5-22):

TABLE 5-22
OUTPUT VOLTAGES
RECTIFIER POWER UNIT

Output Voltages Measured Across	Single Type RBB or RBC Receiver Load
C - D	6.3 v. a-c
A - B	17.0 v. a-c
F - G	200.0 v. d-c
F - E	105.0 v. d-c

(2) The above voltages should check within ±20% including usual tube variations and meter inaccuracies. Failure of these voltages to check indicates a fault in the receiver, interconnecting cable, or power unit. The receiver may be eliminated by a check of the above voltages using a receiver unit known to be in good operating condition or by measurement of no load voltages (see following paragraph). The interconnecting cable can be checked by a continuity test or by recheck of the above voltages at the power unit

end of the cable. Note that the voltage between terminals C-D should measure approximately 0.3 volts higher than the values stated for the receiver end of the cable due to the cable voltage drop.

c. OUTPUT (NO LOAD) VOLTAGES.—

(1) Since the output voltages are dependent upon load conditions, it may be found necessary to measure the power unit output voltages with no load on the output. For operation of the power unit with the receiver unit disconnected, it is necessary to close the a-c supply circuit by means of a short insulated wire jumper connected between terminals S and P of J402 or J403.

CAUTION

Before connecting terminals S and P, remove a-c supply plug P401. Ascertain that the type CRV-VR105 tube and circuit are functioning. Do not operate power unit without load on the output for more than a few minutes.

(2) Replace a-c plug P401 and compare output voltages with the following table, using 110/115/120-volt, 60-cycle supply with the corresponding primary tap connection:

TABLE 5-23
OUTPUT VOLTAGES
RECTIFIER POWER UNIT

Output Voltages Measured Across:	Value
C - D	7.3 v. a-c
A - B	18 v. a-c
F - G	240 v. d-c
F - E	108 v. d-c

(3) If these voltages fail to check within $\pm 2\%$, the power unit circuits should be checked with reference to the resistance table in the following paragraph (see also schematic Fig. 4-16). If vacuum tube faults are indicated, install tubes which are known to be good.

d. POWER UNIT CIRCUIT RESISTANCES.—

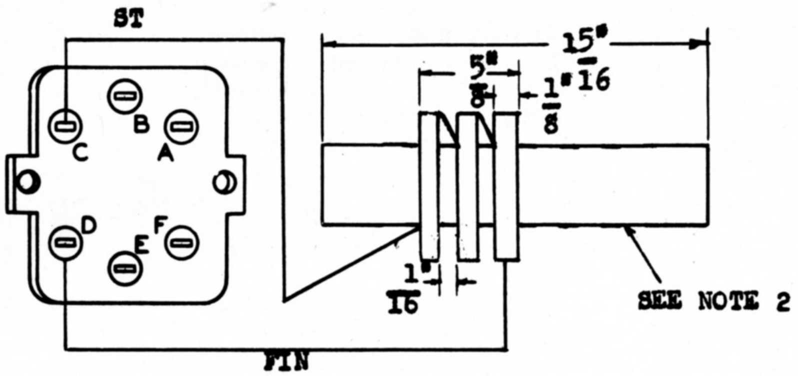
(1) For locating circuit faults, the following resistance measurements may be made to check various portions of the circuit. These measurements should be made with all cables removed from the rectifier power unit receptacles:

(2) Conditions of excessive a-c hum in the receiver unit output may be caused by failure of some portion of the power unit ripple filter circuit. If equipment is available for measurement of a-c ripple voltage, the ripple voltage measured between output terminals F and G with a single receiver load should not exceed 40 millivolts. If a fault is indicated in the ripple filter, the circuit should be checked and the components L405, L406, C406, and C407 checked against the values specified in the winding data and in the parts list.

(3) Excessive r-f interference from local transmitters may be traceable to a defective line filter in the power unit or imperfect ground connections or shielding. The following points should be checked: ground connections to a-c input cable, connection of cable shield to terminal G of P401, connection of terminal G of J401 to power unit panel, tightness of thumbscrews in power unit panel, connection of terminal No. 8 of T401 to ground, line filter shield, line filter circuit and components.

TABLE 5-24
POINT TO POINT RESISTANCE
RECTIFIER POWER UNIT

Points	Resistance Ohms	Circuit
J401-2 to J403-S	1.63	Line filter
J401-1 to T401-1	1.61	Line filter
J401-1 to T401-2	2.68	Line filter and power trans. pri.
J401-1 to T401-3	2.72	Line filter and power trans. pri.
J401-1 to T401-4	2.75	Line filter and power trans. pri.
J403-P to J401-1 (link on 115 v.)	2.75	Line filter and power trans. pri.
V401-2 to V401-8 (tube out)	0.07	Rect. heater winding
J403-F to V401-4 or T401-7	43.6	Half of rectifier plate winding
J403-F to V401-6 or T401-5	43.6	Half of rectifier plate winding
J403-A to J403-B	0.52	17 v. winding and wiring
J403-C to J403-D	0.11	6.3 v. winding and wiring
J403-G to T401-12	200	Ripple filter chokes
J403-G to J403-E	3600	Regulator dropping resistors



COMPONENT
WAVE TRAP
SYMBOL DESIGNATION
L101
REF. DWG K-856759-501

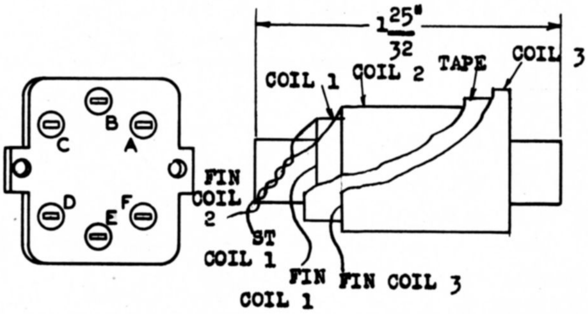
ST-START WINDING
FIN-FINISH WINDING

COIL	NO. OF SECTIONS (PIS)	TYPE OF WIRE	WIRE INSULAT'N	TYPE OF WINDING	TURNS PER SECTION
1	3	AWG.44,Litz	Single Silk	Universal, 4 crosses/turn	50

NOTE 1: Impregnate with wax.

NOTE 2: Polystyrene coil form.

Figure 5-9 — Winding Data, L101 (M-439735)



COMPONENT
OSC. HEATER COIL
SYMBOL DESIGNATION
L201
REF. DWG K-865480-501

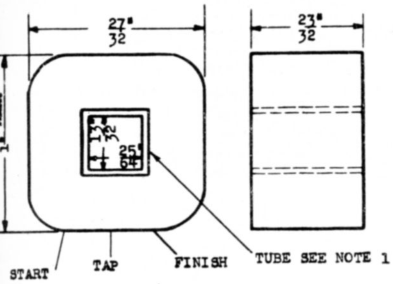
ST-START WINDING
FIN-FINISH WINDING

COIL	NO. OF SECTIONS (PIS)	TYPE OF WIRE	WIRE INSULAT'N	TYPE OF WINDING	TURNS PER SECTION
1	1	AWG. #30	ES	Single Layer, R.H., Close Wound.	12-1/2
2	1	AWG.#24	ES		29-1/2
3	1	AWG.#24	ES	Close Wound	29-1/2

NOTE 1: Start and finish leads to extend one inch beyond terminal board.

NOTE 2: Coil form - polystyrene bakelite.

Figure 5-10 — Winding Data, L201 (M-439736)

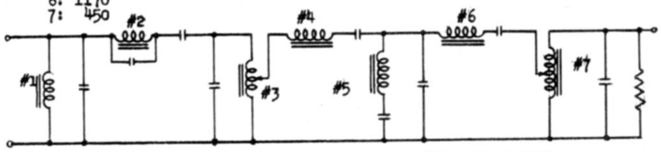


D.C. RESISTANCE (OHMS) AT 25°C

COIL 1: 450
2: 1170
3: 275
4: 1170
5: 275
6: 1170
7: 450

INDUCTANCE

COIL 1: 4.72 Henrys
2: 11.4 Henrys
3: 2.42 Henrys
4: 11.9 Henrys
5: 2.68 Henrys
6: 11.9 Henrys
7: 4.63 Henrys



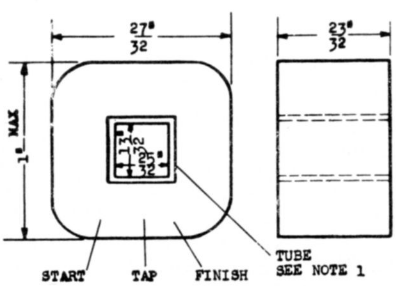
IMPREGNATE COILS AND CORE WITH

NAME OF COIL	COIL IS WOUND ON (OR OVER)	WIRE SIZE A.W.G.	WIRE INSUL-ATION	WT. OF WIRE (LBS.)	TOTAL TURNS ON COIL	TAP AT TURN NO.	TURNS PER LAYER	WIRE TRAV.	INSULATION BETWEEN LAYERS	INSULATION OVER COILS
1	Tube	#38	E	0.034	3500	—	107	0.531	1 Layer 0.0006 Kraft Paper	1 Layer 0.005 Kraft; 1 Layer Acetite.
2	Tube	#40	E	0.031	5400	—	136	0.531	1 Layer 0.0006 Kraft Paper	
3	Tube	#37	E	0.033	2700	900	97	0.531	1 Layer 0.001 Kraft Paper	
4	Tube	#40	E	0.031	5400	—	136	0.531	1 Layer 0.0006 Kraft Paper	
5	Tube	#37	E	0.033	2700	—	97	0.531	1 Layer 0.001 Kraft Paper	
6	Tube	#40	E	0.031	5400	—	136	0.531	1 Layer 0.0006 Kraft Paper	
7	Tube	#38	E	0.034	3500	1170	107	0.531	1 Layer 0.0006 Kraft Paper	

NOTE 1: Tube consists of 2-1/4 turns of 0.010 Kraft Press Board, wrapped with 0.002 celulose acetate.

COMPONENT
BAND PASS FILTER
SYMBOL DESIGNATION
L301-1
REF. DWG. K-901008-501

Figure 5-11 — Winding Data, L301-1 (M-439737)

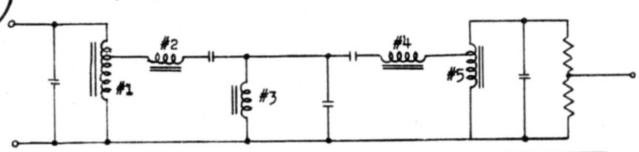


D. C. RESISTANCE (OHMS) AT 25°C.

COIL 1: 718
2: 1750
3: 45
4: 1750
5: 718

INDUCTANCE

COIL 1: 5.65 H
2: 16.9 H
3: 0.506 H
4: 16.9 H
5: 5.65 H



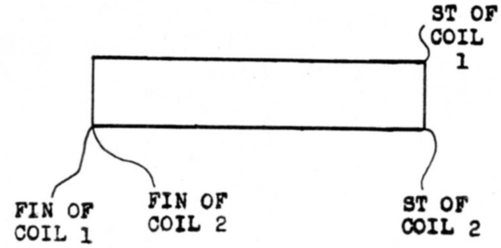
IMPREGNATE COILS AND CORE WITH MS 41

NAME OF COIL	COIL IS WOUND ON (OR OVER)	WIRE SIZE A.W.G.	WIRE INSUL-ATION	WT. OF WIRE (LBS.)	TOTAL TURNS ON COIL	TAP AT TURN NO.	TURNS PER LAYER	WIRE TRAV.	INSULATION BETWEEN LAYERS	INSULATION OVER COILS
1	Tube	#39	E	0.032	4300	1830	120	0.531	1 Layer 0.0006 Kraft Paper	1 Layer 0.005 Kraft; 1 Layer Acetite
2	Tube	#41	E	0.031	6600	—	152	0.531	1 Layer 0.0006 Kraft Paper	
3	Tube	#33	E	0.033	1100	—	62	0.531	1 Layer 0.0015 Kraft Paper	
4	Tube	#41	E	0.031	6600	—	152	0.531	1 Layer 0.0006 Kraft Paper	
5	Tube	#39	E	0.032	4300	1830	120	0.531	1 Layer 0.0006 Kraft Paper	

NOTE 1: Tube consists of 2-1/4 turns of 0.010 Kraft Press Board, wrapped with 0.002 celoluse acetate.

COMPONENT
BAND PASS FILTER
SYMBOL DESIGNATION
L-301-2
REF. DWG. K-901009-501

Figure 5-12 — Winding Data, L301-2 (M-439738)



COMPONENT
PHONE LEAD FILTER
SYMBOL DESIGNATION
L303-A & B
REF. DWG. K-865413-501

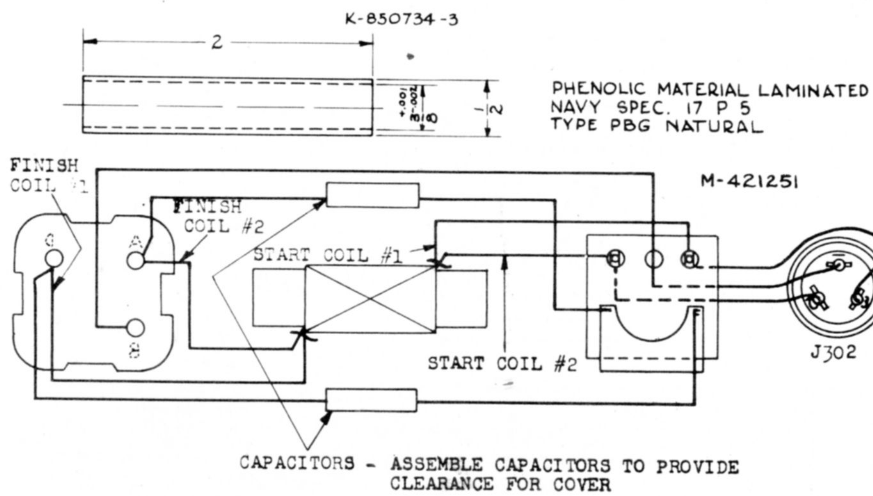
ST-START WINDING
FIN-FINISH WINDING

COIL	NO. OF SECTIONS (PIS)	TYPE OF WIRE	WIRE INSULAT'N	TYPE OF WINDING	TURNS PER SECTION
1	--	AWG. #28	DC	Wind together in Bifilar, single layer, R.H., close wound	30
2	--	AWG. #28	DC		30

NOTE 1: Strip and tin ends of leads 1/2-inch and solder to terminals.

NOTE 2: Coil form; laminated phenolic, 1-5/8" long, 3/8" I.D., 1/2" O.D.

Figure 5-13 — Winding Data, L303-A, B (M-439741)

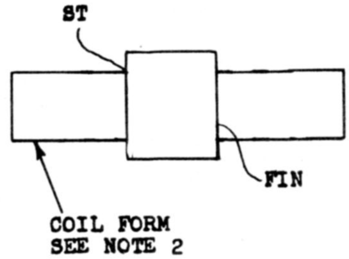


STRIP AND TIN ENDS OF ALL LEADS 1/2 INCH. SOLDER ALL CONNECTIONS.

COIL NO.	CONDUCTOR	METHOD OF WINDING	NUMBER OF TURNS
1	#28 DC	WIND TOGETHER IN BIFILAR SINGLE LAYER, RIGHT HAND CLOSE WOUND	25
2	#28 DC	WIND TOGETHER IN BIFILAR SINGLE LAYER, RIGHT HAND, CLOSE WOUND	25

NOTE #1: AFTER ASSEMBLY OF COILS AND TAPE ON COIL FORM TREAT WITH SUPERLA WAX.

Figure 5-14 — Winding Data, L304-A, B (K-893107)



COMPONENT
VOLTMETER FILTER CHOKE
SYMBOL DESIGNATION
L305
REF. DWG. K-865458-501

ST-START WINDING
FIN-FINISH WINDING

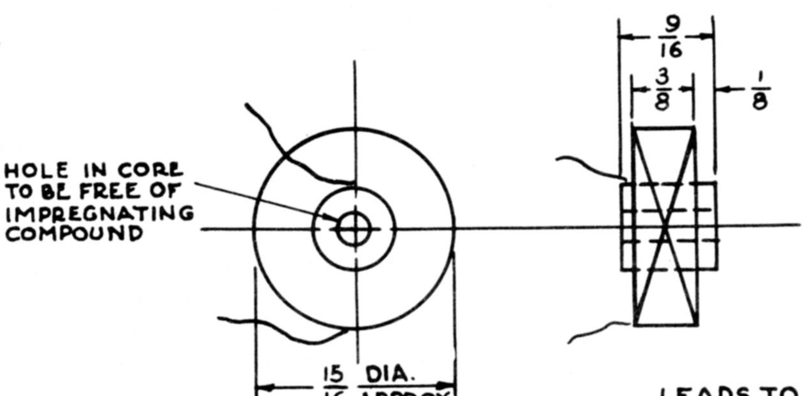
COIL	NO. OF SECTIONS (PIS)	TYPE OF WIRE	WIRE INSULAT'N	TYPE OF WINDING	TURNS PER SECTION
1	1	AWG. #28	DC	Single Layer, R.H., Close Wd.	25

NOTE 1: Extend leads 1-1/4-inch from finish end of coil form; strip and tin 1/2-inch.

NOTE 2: Coil form; phenolic lamination, 1-3/8" long, 3/8" I.D., 1/2" O.D.

Figure 5-15 — Winding Data, L305 (M-439706)

K-900676

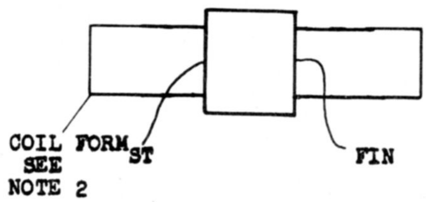


LEADS TO EXTEND 1¼ FROM COIL STRIP & TIN 1"

TREAT CORE & COIL PER MS. 41, & WHEN NECESSARY MS. 124 MAY BE SUBSTITUTED

PART	CONDUCTOR		NO. OF TURNS	NO. OF LAYERS	TURNS PER LAYER	D.C. RES. AT 25°C OHMS	
	BARE DIA.	WT. LBS.					
1	#16 E	.04	23½	4	6	.019	

Figure 5-16 — Winding Data, L306, L307 (K-893105)



COMPONENT
INPUT METER FILTER CHOKE
SYMBOL DESIGNATION
L308-A & B
REF. DWG. K-865458-502

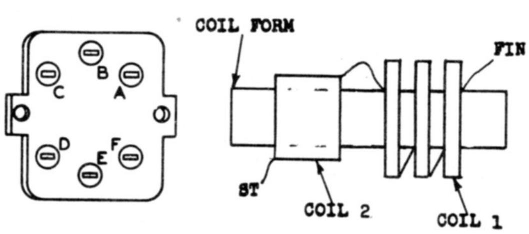
ST-START WINDING
FIN-FINISH WINDING

COIL	NO. OF SECTIONS (PIS)	TYPE OF WIRE	WIRE INSULAT'N	TYPE OF WINDING	TURNS PER SECTION
1	1	AWG. #28	DC	Single Layer, R.H., Close Wound.	24

NOTE 1: Extend leads 1-1/4-inch from finish end of coil form; strip and tin 1/2-inch.

NOTE 2: Coil form; phenolic lamination, 1-3/8" long, 3/8" I.D., 1/2" O.D.

Figure 5-17 — Winding Data, L308-A, B (M-439740)



COMPONENT
LINE FILTER CHOKE
SYMBOL DESIGNATION
L401, 402, 403, 404
REF. DWG. K-826863-502

ST-START WINDING
FIN-FINISH WINDING

COIL	NO. OF SECTIONS (PIS)	TYPE OF WIRE	WIRE INSULAT'N	TYPE OF WINDING	TURNS PER SECTION
1	3	AWG. #22E	Single Silk	Universal, 2 crosses/turn	50
2	1	AWG. #22E	Single Silk	Single Layer, Close Wound	40

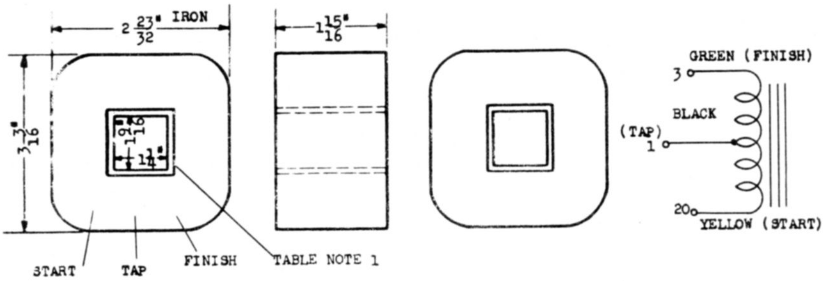
NOTE 1: Coil Sections to be wound in series without a break or splice in connecting wire and all windings to be same direction.

NOTE 2: Start lead to extend 1-1/2-inches from coil, strip and tin end 1/2-inch.

NOTE 3: Finish lead to extend 3 inches from coil; strip and tin end 1/2-inch.

NOTE 4: Coil form; Laminated insulation, 4-1/2" long, 5/8" I.D., 3/4" O.D.

Figure 5-18 — Winding Data, L401, L402, L403, and L404 (M-439742)



IMPREGNATE COILS AND CORE WITH MS 147-1

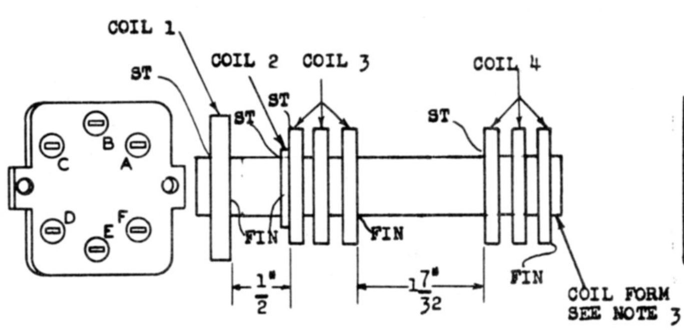
NAME OF COIL	COIL IS WOUND ON (OR OVER)	WIRE SIZE A.W.G.	WIRE INSUL-ATION	WT. OF WIRE (LBS)	TOTAL TURNS ON COIL	TAP AT TURN NO.	TURNS PER LAYER	WIRE TRAV	INSULATION BETWEEN LAYERS	INSULATION OVER COILS
1	*SPOOL	#27	E	1.25	3150	3081	102	1.688	1 Layer 0.003 Kraft Paper	3 Layers 0.005 Kraft; 1 Layer Acetate

*NOTE 1: Tube consists of 0.030 Kraft Spool, wrapped with 0.002 celulose acetite.

NOTE 2: D.C. Resistance at 25°C; 106 ohms.

COMPONENT
REACTOR
SYMBOL DESIGNATION
L405, 406
REF. DWG. K-900934-502

Figure 5-19 — Winding Data, L405, L406 (M-439734)



COMPONENT
ANTENNA TRANS. BAND 1
SYMBOL DESIGNATION
T101
REF. DWG. P-720559-501

ST-START WINDING
FIN-FINISH WINDING

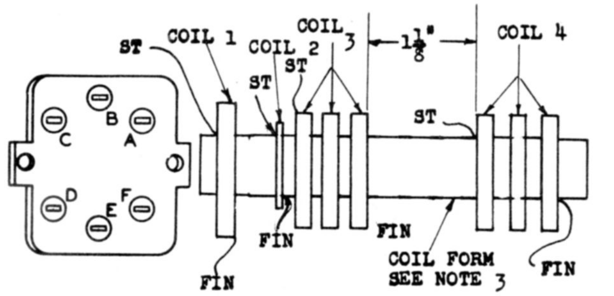
COIL	NO. OF SECTIONS (PIS)	TYPE OF WIRE	WIRE INSULAT'N	TYPE OF WINDING	TURNS PER SECTION	START*	FINISH*
1	1	AWG. #30E	DS	Universal, 4 crosses/turn	177	C-D	C-D
2	1	AWG. #30E	DS	Close, Single Layer	6	C-D	C-D
3	3	30 Strands AWG.#44Litz	ES	Universal, 6 crosses/turn	57	A-F	A-F
4	3	30 Strands AWG.#44Litz	ES	Universal, 6 crosses/turn	57	A-F	A-F

* NOTE 1: Terminal limits for lead take-off.

NOTE 2: Start and finish leads to extend one inch beyond flange of nearest terminal board.

NOTE 3: Coil form; two coil forms, polystyrene, each 2-21/64" long.

Figure 5-20 — Winding Data, T101 (M-439729)



COMPONENT
ANTENNA TRANS. BAND 2
SYMBOL DESIGNATION
T102
REF. DWG. P-720559-502

ST-START WINDING
FIN-FINISH WINDING

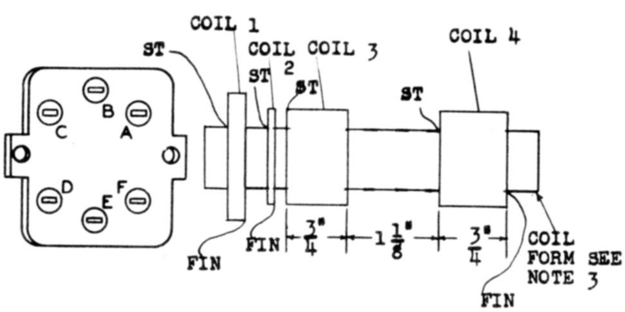
COIL	NO. OF SECTIONS (PIS)	TYPE OF WIRE	WIRE INSULAT'N	TYPE OF WINDING	TURNS PER SECTION	START *	FINISH *
1	1	AWG. #30E	DS	Universal, 4 crosses/turn	113	C-D	C-D
2	1	AWG. #30E	DS	Close, Single Layer	5	C-D	C-D
3	3	30 Strands AWG. #44Litz	ES	Universal, 6 crosses/turn	33	A-F	A-F
4	3	30 Strands AWG. #44Litz	ES	Universal, 6 crosses/turn	33	A-F	A-F

* NOTE 1: Terminal limits for lead take-off.

NOTE 2: Start and finish leads to extend one inch beyond flange of nearest terminal board.

NOTE 3: Coil form; 2 coil forms, polystyrene, each 2-21/64" long.

Figure 5-21 — Winding Data, T102 (M-439711)



COMPONENT
ANTENNA TRANS., BAND 3
SYMBOL DESIGNATION
T103
REF. DWG. P-720559-503

ST-START WINDING
FIN-FINISH WINDING

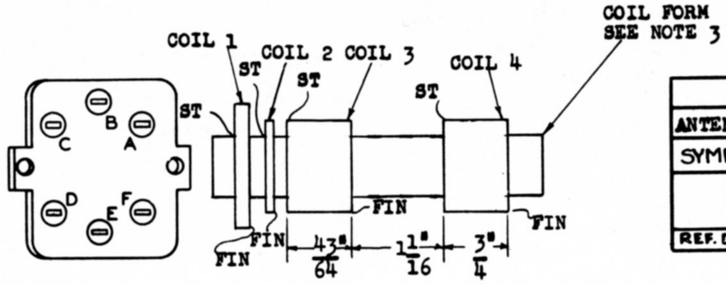
COIL	NO. OF SECTIONS (PIS)	TYPE OF WIRE	WIRE INSULAT'N	TYPE OF WINDING	TURNS PER SECTION	START *	FINISH *
1	1	AWG. #30E	DS	Universal, 4 crosses/turn	65	C-D	C-D
2	1	AWG. #30E	DS	Close, Single Layer	5	C-D	C-D
3	1	30 Strands AWG. #44Litz	ES	Progressive, 100 Turns/in., 172 throw, 6 crosses/turn	75	A-F	A-F
4	1	30 Strands AWG. #44Litz	ES		75	A-F	A-F

*NOTE 1: Terminal limits for lead take-off.

NOTE 2: Start and finish leads to extend one inch beyond flange of nearest terminal board

NOTE 3: Coil form; 2 coil forms, polystyrene, each 2-21/64" long, wax impregnated.

Figure 5-22 — Winding Data, T103 (M-439730)



COMPONENT
ANTENNA TRANS. BAND 4
SYMBOL DESIGNATION
T104
REF. DWG. P-720559-504

ST-START WINDING
FIN-FINISH WINDING

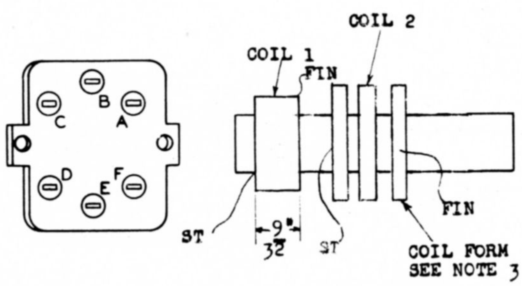
COIL	NO. OF SECTIONS (PIS)	TYPE OF WIRE	WIRE INSULAT'N	TYPE OF WINDING	TURNS PER SECTION	START*	FINISH*
1	1	AWG. #30E	DS	Universal, 4 crosses/turn	35	C-D	C-D
2	1	AWG. #30E	DS	Close, Single Layer	6	C-D	C-D
3	1	30 Strands AWG. #44Litz	ES	Single Layer	40	A-F	A-F
4	1	30 Strands AWG. #44Litz	ES	Single Layer	45	A-F	A-F

* NOTE 1: Terminal limits for lead take-off.

NOTE 2: Start and finish leads to extend one inch beyond flange of nearest terminal board.

NOTE 3: Coil form; 2 coil forms, polystyrene, each 2-21/64" long.

Figure 5-23 — Winding Data, T104 (M-439731)



COMPONENT
R-F TRANS., BAND 1
SYMBOL DESIGNATION
T-105, 109
REF. DWG M-420939-501

ST-START WINDING
FIN-FINISH WINDING

COIL	NO. OF SECTIONS (PIS)	TYPE OF WIRE	WIRE INSULAT'N	TYPE OF WINDING	TURNS PER SECTION	START*	FINISH*
1	1	AWG. #30	DSE	In space indicated, Single Layer	20	A-C	A-C
2	3	30 Strands AWG. #44Litz	SS	Universal, 6 crosses/turn	57	A-F	A-F

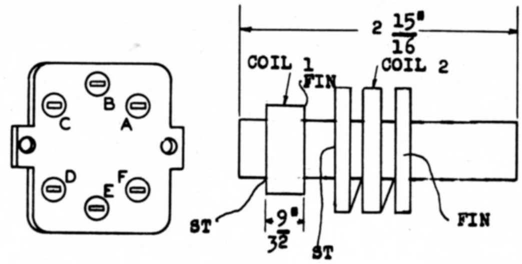
NOTE 1: All start and finish leads to extend one inch beyond flange of coil form.

NOTE 2: Coil #2 - Sections to be wound in series without a break or splice in connecting wire.

NOTE 3: Coil form - polystyrene bakelite, 2-15/16" long.

*NOTE 4: Terminal limits for lead take-off.

Figure 5-24 — Winding Data, T105, T109 (M-439739)



COMPONENT
R-F TRANS. BAND 2
SYMBOL DESIGNATION
T106, 110
REF. DWG. M-420939-502

ST-START WINDING
FIN-FINISH WINDING

COIL	NO. OF SECTIONS (PIS)	TYPE OF WIRE	WIRE INSULAT'N	TYPE OF WINDING	TURNS PER SECTION	START *	FINISH *
1	1	AWG. #30	DSE	In space indicated, Single Layer	20	A-C	A-C
2	3	30 Strands AWG.#44Litz	SS	Universal, 6 crosses/turn	33	A-F	A-F

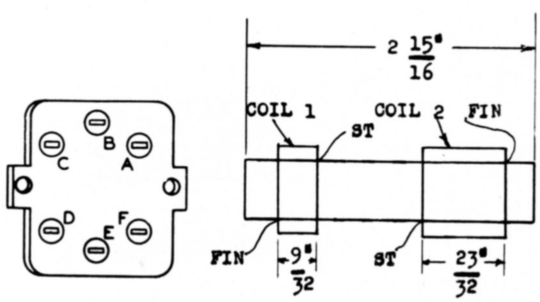
NOTE 1: All start and finish leads to extend one inch beyond flange of coil form.

NOTE 2: Coil #2 - Sections to be wound in series without a break or splice in connecting wire.

NOTE 3: Coil form - polystyrene bakelite.

*NOTE 4: Terminals limits for lead take-off.

Figure 5-25 — Winding Data, T106, T110 (M-439710)



COMPONENT
R-F TRANS., BAND 2
SYMBOL DESIGNATION
T107, 111
REF. DWG M-420939-503

ST-START WINDING
FIN-FINISH WINDING

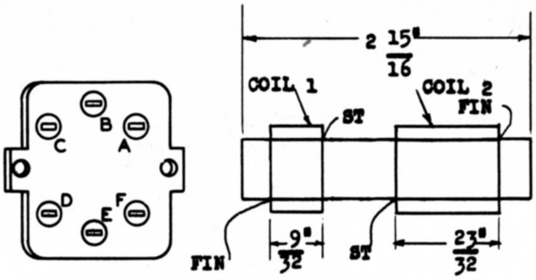
COIL	NO. OF SECTIONS (PIS)	TYPE OF WIRE	WIRE INSULAT'N	TYPE OF WINDING	TURNS PER SECTION	START *	FINISH *
1	1	AWG. #30	DSE	In space indicated, Single Layer	20	A-C	A-C
2	1	30 Strands AWG.#44Litz	SS	Progressive, 100 turns/in., 6 crosses/turn, 0.172 throw	70 ± 1	A-F	A-F

NOTE 1: All start and finish leads to extend one inch beyond flange of coil form.

NOTE 2: Coil form - polystyrene bakelite.

*NOTE 3: Terminal limits for lead take-off.

Figure 5-26 — Winding Data, T107, T111 (M-439732)



COMPONENT
R-F TRANS., BAND 4
SYMBOL DESIGNATION
T108, 112
REF. DWG. M-420939-504

ST-START WINDING
FIN-FINISH WINDING

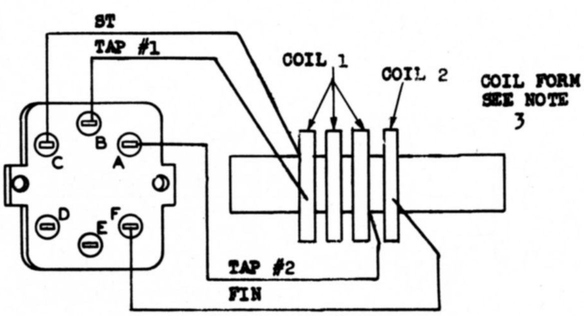
COIL	NO. OF SECTIONS (PIS)	TYPE OF WIRE	WIRE INSULAT'N	TYPE OF WINDING	TURNS PER SECTION	*START	FINISH*
1		AWG. #30	DSE	In space indicated, Single Layer	20	A-C	A-C
2		30 Strands AWG. #44 Litz	SS		40	A-F	A-F

NOTE 1: All start and finish leads to extend one inch beyond flange of coil form.

NOTE 2: Coil Form - polystyrene bakelite.

*NOTE 3: Terminal limits for lead take-off.

Figure 5-27 — Winding Data, T108, T112 (M-439733)



COMPONENT
OSC. TRANS., BAND 1
SYMBOL DESIGNATION
T113
REF. DWG. M-420951-505

ST-START WINDING
FIN-FINISH WINDING

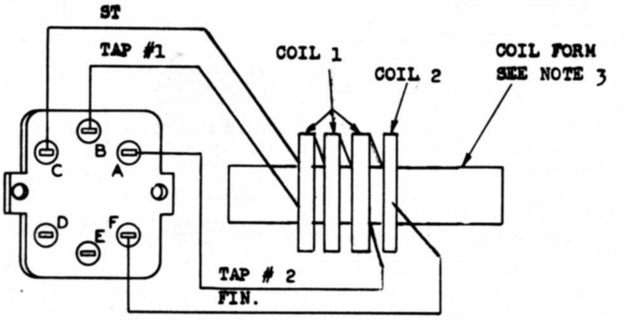
COIL	NO. OF SECTIONS (PIS)	TYPE OF WIRE	WIRE INSULAT'N	TYPE OF WINDING	TURNS PER SECTION	TAP NO. 1 TURNS FROM START	TAP NO. 2 TURNS FROM START
1	3	30 Strands AWG. #44 Litz	SS	Universal, 4 crosses/turn	31	10	70
2	1		SS	Universal, 4 crosses/turn	30 ± 1		

NOTE 1: Start and finish leads to extend one inch beyond flange of coil form bring out conductor and twist to form tap.

NOTE 2: Coils to be wound without a break except at taps.

NOTE 3: Coil form: polystyrene bakelite, 2-15/16" long, 5/8" O.D., 3/8" I.D.

Figure 5-28 — Winding Data, T113 (M-439709)



COMPONENT
OSC. TRANS., BAND 2
SYMBOL DESIGNATION
T114
REF. DWG. M-420951-506

ST-START WINDING
FIN-FINISH WINDING

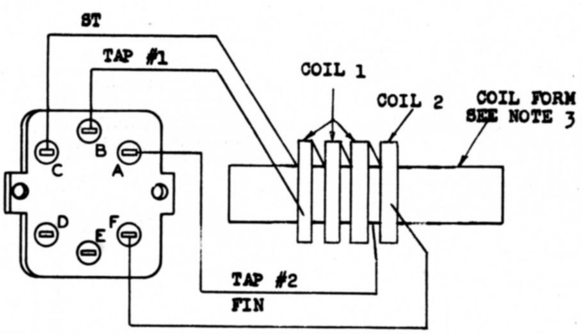
COIL	NO. OF SECTIONS (PIS)	TYPE OF WIRE	WIRE INSULAT'N	TYPE OF WINDING	TURNS PER SECTION	TAP NO I TURNS FROM START	TAP NO. 2 TURNS FROM START	TOTAL INDUCTANCE OF COIL
1	3	30 Strands AWG. #44 Litz	SS	Universal. 4 Layers/turn	20	6	48	
2	1		SS	Same as No. 1	22 $\pm$ 1			

NOTE 1: Start and finish leads to extend one inch beyond flange of coil form; bring out conductor and twist to form tap.

NOTE 2: Coils to be wound without a break except at taps.

NOTE 3: Coil form; polystyrene bakelite, 2-15/16" long, 5/8" O.D., 3/8" I.D.

Figure 5-29 — Winding Data, T114 (M-439707)



COMPONENT
OSC. TRANS., BAND 3
SYMBOL DESIGNATION
T115
REF. DWG. M-420951-507

ST-START WINDING
FIN-FINISH WINDING

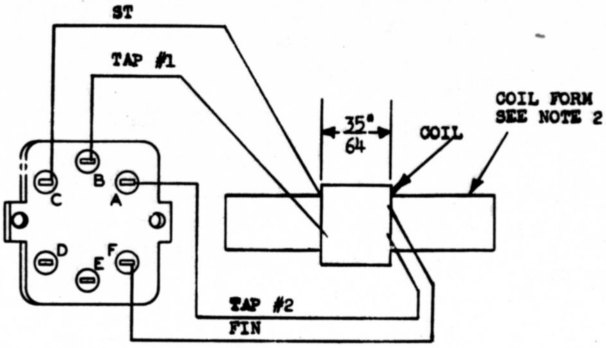
COIL	NO. OF SECTIONS (PIS)	TYPE OF WIRE	WIRE INSULAT'N	TYPE OF WINDING	TURNS PER SECTION	TAP NO I TURNS FROM START	TAP NO. 2 TURNS FROM START
1	3	30 Strands AWG. #44 Litz	SS	Universal, 4 crosses/turn	13	6	30
2	1		SS	Universal, 4 crosses/turn	15 $\pm$ 1/2		

NOTE 1: Start and finish leads to extend one inch beyond flange of coil form; bring out conductor and twist to form tap.

NOTE 2: Coils to be wound without a break except at taps.

NOTE 3: Coil form; polystyrene bakelite, 2-15/16" long, 5/8" O.D., 3/8" I.D.

Figure 5-30 — Winding Data, T115 (M-439708)



COMPONENT
OSC. TRANS. BAND 4
SYMBOL DESIGNATION
T116
REF. DWG. M-420951-508

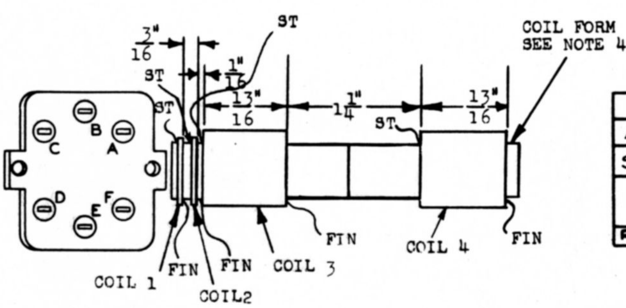
ST-START WINDING
FIN-FINISH WINDING

COIL	NO. OF SECTIONS (PIS)	TYPE OF WIRE	WIRE INSULAT'N	TYPE OF WINDING	TURNS PER SECTION	TAP NO 1 TURNS FROM START	TAP NO. 2 TURNS FROM START
1	1	30 STRANDS AWG. #44 LITZ	SS	SINGLE LAYER	32	4	16

NOTE 1: Start and finish leads to extend one inch beyond flange of coil form; bring out conductor and twist to form tap.

NOTE 2: Coil form; polystyrene bakelite, 2-15/16" long.

Figure 5-31 —Winding Data, T-116 (M-439728)



COMPONENT
ANT. TRANS., BAND 1
SYMBOL DESIGNATION
T201
REF. DWG. P-720560-501

ST-START WINDING
FIN-FINISH WINDING

COIL	NO. OF SECTIONS (PIS)	TYPE OF WIRE	WIRE INSULAT'N	TYPE OF WINDING	TURNS PER SECTION	*START	* FINISH
1	1	AWG. #30	DSE	Close, Single Layer	7	C-D	C-D
2	1	AWG. #30	DSE	Close, Single Layer	3	C-D	C-D
3	1	AWG. #24	DC	Single Layer	27	A-F	A-F
4	1	AWG. #24	DC	Single Layer	26	A-F	A-F

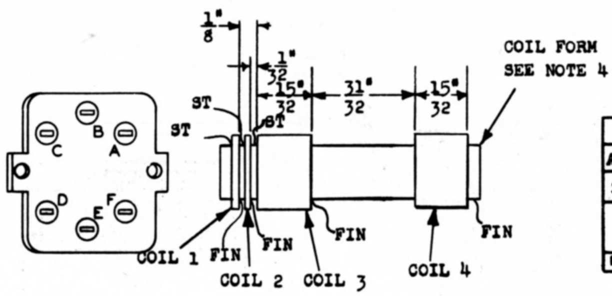
NOTE 1: All start and finish leads to extend one inch beyond flange of coil form.

NOTE 2: All dimensions must be taken directly in line with "E" terminals.

*NOTE 3: Terminal limits for lead take-off.

NOTE 4: Coil form; 2 coil forms, mounted in line, polystyrene bakelite, each 2-21/64" long, 5/8" O.D., 3/8" I.D.

Figure 5-32 — Winding Data, T201 (M-439704)



COMPONENT
ANT. TRANS., BAND 2
SYMBOL DESIGNATION
T202
REF. DWG. P-720560-502

ST-START WINDING
FIN-FINISH WINDING

COIL	NO. OF SECTIONS (PIS)	TYPE OF WIRE	WIRE INSULAT'N	TYPE OF WINDING	TURNS PER SECTION	*START	*FINISH
1	1	AWG. #24	DC	Single Layer	16	A-F	A-F
2	1	AWG. #24	DC	Single Layer	16	A-F	A-F
3	1	AWG. #30	DSE	Close Single Layer	4	C-D	C-D
4	1	AWG. #30	DSE	Close Single Layer	2	C-D	C-D

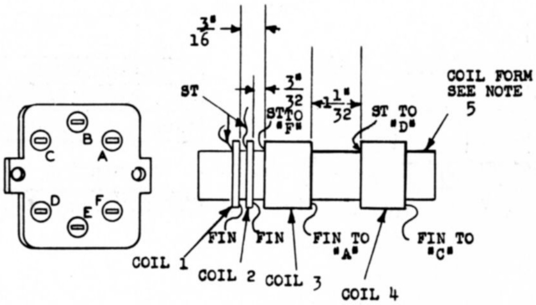
* NOTE 1: Terminal limits for lead take-off.

NOTE 2: All start and finish leads to extend one inch beyond flange of coil form.

NOTE 3: All dimensions must be taken directly in line with "E" terminals.

NOTE 4: Coil form; 2 coil forms mounted in line, polystyrene bakelite, each 2-21/64" long.

Figure 5-33 — Winding Data, T202 (M-439721)



COMPONENT
ANT.TRANS., BAND 3
SYMBOL DESIGNATION
T203
REF. DWG. P-720560-503

ST-START WINDING
FIN-FINISH WINDING

COIL	NO. OF SECTIONS (PIS)	TYPE OF WIRE	WIRE INSULAT'N	TYPE OF WINDING	TURNS PER SECTION	*START	*FINISH
1	1	AWG. #30	DSE	Close, Single Layer	4	C-D	C-D
2	1	AWG. #30	DSE	Close, Single Layer	2	C-D	C-D
3	1	AWG. #14	E	12 Thds/inch	10-3/4	See dwg	See dwg
4	1	AWG. #14	E	12 Thds/inch	10-3/4	See dwg	See dwg

* NOTE 1: Terminal limits for lead take-off.

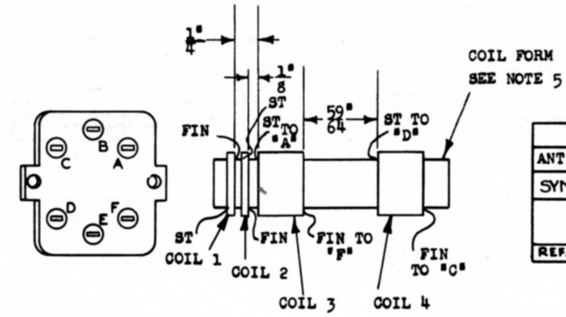
NOTE 2: All start and finish leads to extend one inch beyond flange of coil form.

NOTE 3: Strip ends of coils 3 and 4, 1/2-inch, and tin completely.

NOTE 4: All dimensions must be taken directly in line with "E" terminals.

NOTE 5: Coil form; 2 coil forms mounted in line, polystyrene bakelite, each 2-21/64" long.

Figure 5-34 — Winding Data, T203 (M-439712)



COMPONENT
ANT. TRANS., BAND 4
SYMBOL DESIGNATION
T204
REF. DWG. P-720560-504

ST-START WINDING
FIN-FINISH WINDING

COIL	NO. OF SECTIONS (PIS)	TYPE OF WIRE	WIRE INSULAT'N	TYPE OF WINDING	TURNS PER SECTION	*START	*FINISH
1	1	AWG. #30	DSE	Close, Single Layer	1-3/4	C-D	C-D
2	1	AWG. #30	DSE	Close, Single Layer	2-1/2	C-D	C-D
3	1	AWG. #12	Tinned Copper	8 THDS./INCH	5-1/4	See dwg.	See dwg.
4	1	AWG. #12	Tinned Copper	8 THDS./INCH	4-3/4	See dwg.	See dwg.

* NOTE 1: Terminal limits for lead take-off.

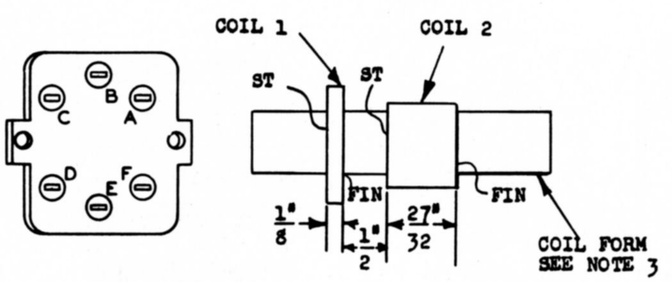
NOTE 2: All dimensions must be taken directly in line with "E" terminals.

NOTE 3: All start and finish leads to extend one inch beyond flange of coil form.

NOTE 4: Strip ends of coils 3 and 4, 1/2-inch, and tin completely.

NOTE 5: Coil form; 2 coil forms mounted in line, polystyrene bakelite, each 2-21/64" long.

Figure 5-35 — Winding Data, T204 (M-439726)



COMPONENT
R-F TRANS., BAND 1
SYMBOL DESIGNATION
T205, 209
REF. DWG. M-420940-501

ST-START WINDING
FIN-FINISH WINDING

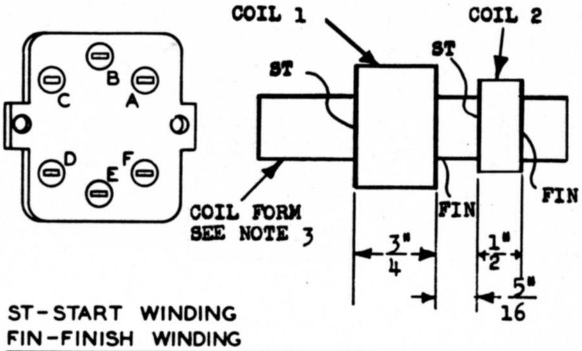
COIL	NO. OF SECTIONS (PIS)	TYPE OF WIRE	WIRE INSULAT'N	TYPE OF WINDING	TURNS PER SECTION	*START	*FINISH
1	1	AWG. #30E	DS	Universal, 4 crosses/turn	96	A-C	A-C
2	1	AWG. #24 Magnet	DC	Single Layer	27	A-F	A-F

* NOTE 1: Terminal limits for lead take-off.

NOTE 2: All start and finish leads to extend one inch beyond flange of coil form.

NOTE 3: Coil form - polystyrene bakelite, 2-15/16" long, 5/8" O.D., 3/8" I.D.

Figure 5-36 — Winding Data, T205, T209 (M-439725)



COMPONENT
R-F TRANS., BAND 2
SYMBOL DESIGNATION
T206, 210
REF. DWG M-420940-502

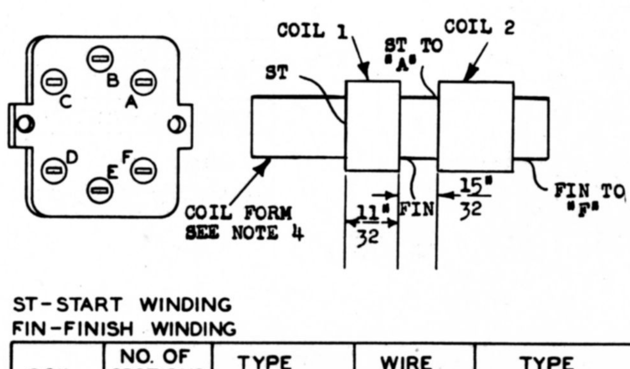
COIL	NO. OF SECTIONS (PIS)	TYPE OF WIRE	WIRE INSULAT'N	TYPE OF WINDING	TURNS PER SECTION	*START	*FINISH
1	1	AWG. #30E	DS	Progressive, 150 turns/in. 6 crosses/ turn, 1/8 throw	110	A-C	A-C
2	1	AWG. #24 Magnet	DC	Single Layer	16	A-F	A-F

* NOTE 1: Terminal limits for lead take-off.

NOTE 2: All start and finish leads to extend one inch beyond flange of coil form.

NOTE 3: Coil form - polystyrene bakelite, 2-15/16" long.

Figure 5-37 — Winding Data, T206, T210 (M-439724)



COMPONENT
R-F TRANS., BAND 3
SYMBOL DESIGNATION
T207, 211
REF. DWG. M-420940-503

COIL	NO. OF SECTIONS (PIS)	TYPE OF WIRE	WIRE INSULAT'N	TYPE OF WINDING	TURNS PER SECTION	*START	*FINISH
1	1	AWG. #30E	DS	Progressive, 150 turns/in. crosses/turn, 1/8 throw.	49	A-C	A-C
2	1	AWG. #16	EC	16 Thds/in.	11-1/4	See dwg	See dwg

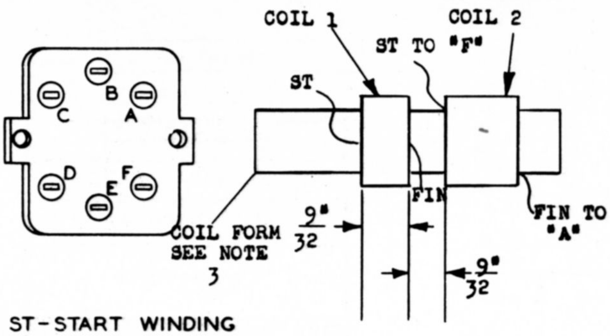
* NOTE 1: Terminal limits for lead take-off.

NOTE 2: Start and finish lead of coil 1 should extend one inch beyond flange of coil form.

NOTE 3: Strip and tin ends of coil 2 for 1/2-inch.

NOTE 4: Coil form - polystyrene bakelite, 2-15/16" long.

Figure 5-38 — Winding Data, T207, T211 (M-439722)



COMPONENT
1ST R-F TRANS. BAND 4
SYMBOL DESIGNATION
T208
REF. DWG. M-420940-504

ST-START WINDING
FIN-FINISH WINDING

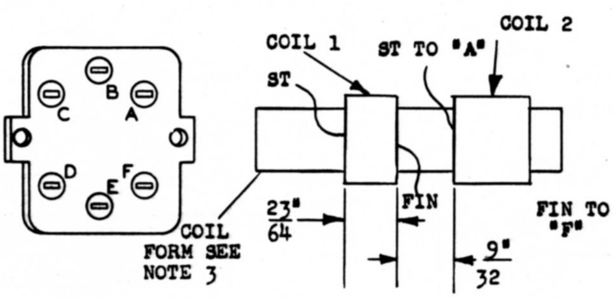
COIL	NO. OF SECTIONS (PIS)	TYPE OF WIRE	WIRE INSULAT'N	TYPE OF WINDING	TURNS PER SECTION	*START	*FINISH
1	1	AWG. #30E	DS	Single Layer	21	A-C	A-C
2	1	AWG. #12	Copper Tinned	8 THDS./INCH	4-3/4	See dwg	See dwg

* NOTE 1: Terminal limits for lead take-off.

NOTE 2: Start and finish leads of coil 1 to extend one inch beyond flange of coil form.

NOTE 3: Coil form - polystyrene bakelite, 2-15/16" long.

Figure 5-39 — Winding Data, T208 (M-439727)



COMPONENT
2ND. R-F TRANS. BAND 4
SYMBOL DESIGNATION
T212
REF. DWG. M-420940-505

ST-START WINDING
FIN-FINISH WINDING

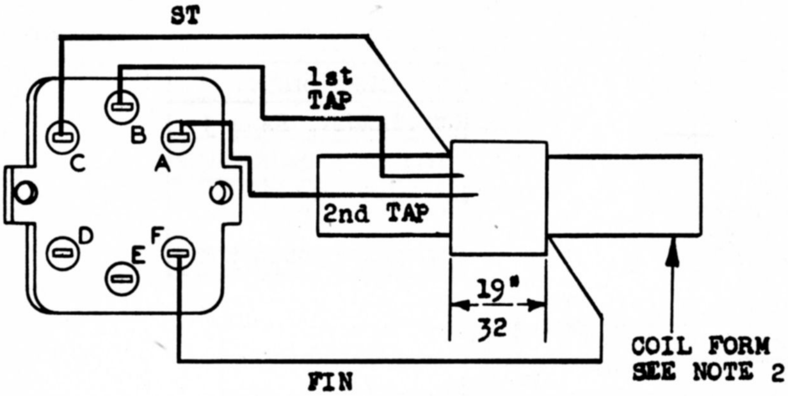
COIL	NO. OF SECTIONS (PIS)	TYPE OF WIRE	WIRE INSULAT'N	TYPE OF WINDING	TURNS PER SECTION	*START	*FINISH
1	1	AWG. #30E	DS	Single Layer	27	A-C	A-C
2	1	AWG. #12	Copper Tinned	8 Thds./inch	4-1/4	See dwg	See dwg

* NOTE 1: Terminal limits for lead take-off.

NOTE 2: Start and finish leads of coil 1 to extend one inch beyond flange of coil form.

NOTE 3: Coil form - polystyrene bakelite, 2-15/16" long.

Figure 5-40 — Winding Data, T212 (M-439723)



COMPONENT
OSC. TRANS., BAND 1
SYMBOL DESIGNATION
T213
REF. DWG. M-420957-505

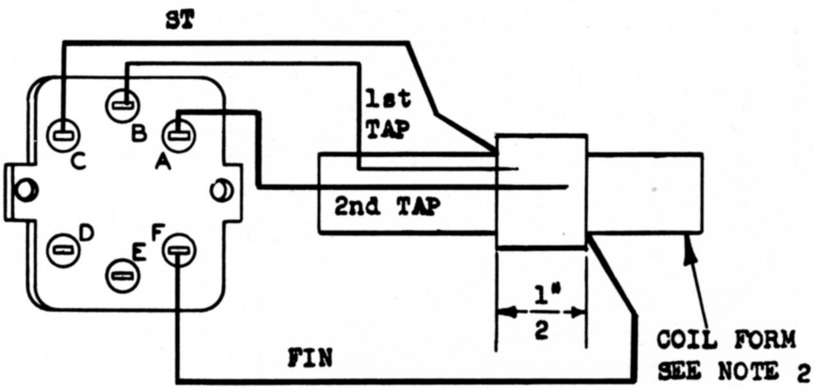
ST-START WINDING
FIN-FINISH WINDING

COIL	NO. OF SECTIONS (PIS)	TYPE OF WIRE	WIRE INSULAT'N	TYPE OF WINDING	TURNS PER SECTION	TAP NO 1 TURNS FROM START	TAP NO2 TURNS FROM START	TOTAL INDUCTANCE OF COIL
1	1	AWG. #28	DC	Single Layer	28-1/2	7-3/4	17-3/4	

NOTE 1: All leads to extend one inch beyond flange of coil form.

NOTE 2: Coil form - polystyrene bakelite, 2-15/16" long.

Figure 5-41 — Winding Data, T213 (M-439705)



COMPONENT
OSC. TRANS., BAND 2
SYMBOL DESIGNATION
T214
REF. DWG. M-420957-506

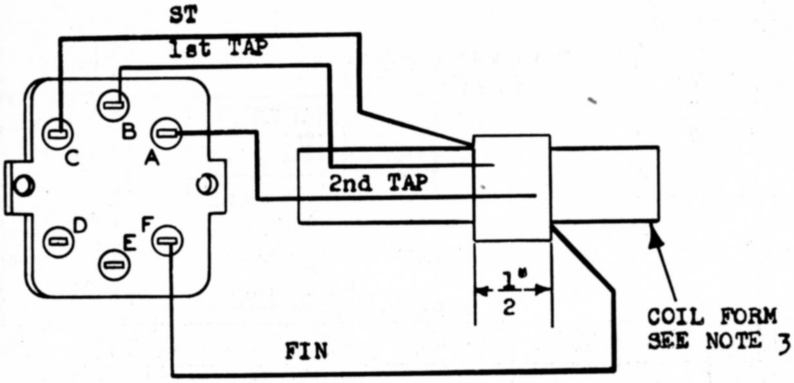
ST-START WINDING
FIN-FINISH WINDING

COIL	NO. OF SECTIONS (PIS)	TYPE OF WIRE	WIRE INSULAT'N	TYPE OF WINDING	TURNS PER SECTION	TAP NO.1 TURNS FROM START	TAP NO.2 TURNS FROM START
1	1	AWG. #24	DC	Single Layer	15-1/2	3-3/4	8-3/4

NOTE 1: All leads to extend one inch beyond flange of coil form.

NOTE 2: Coil form - polystyrene bakelite, 2-15/16" long.

Figure 5-42 — Winding Data, T214 (M-439719)



COMPONENT
OSC. TRANS., BAND 3
SYMBOL DESIGNATION
T215
REF. DWG. M-420957-507

ST-START WINDING
FIN-FINISH WINDING

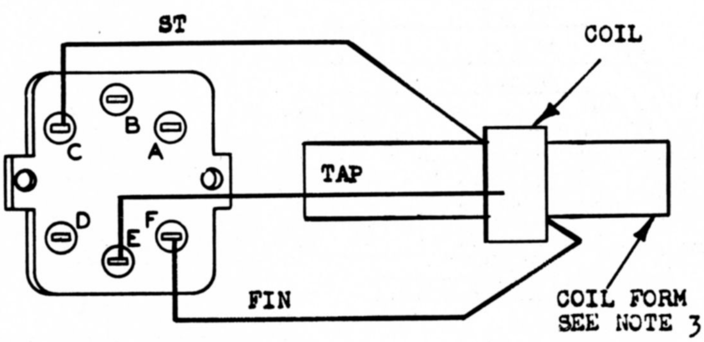
COIL	NO. OF SECTIONS (PIS)	TYPE OF WIRE	WIRE INSULAT'N	TYPE OF WINDING	TURNS PER SECTION	TAP NO. 1 TURN FROM START	TAP NO. 2 TURN FROM START
1	1	AWG. #18	DC	Single Layer	9-1/2	2-3/4	6-3/4

NOTE 1: Wrap tape around tap leads after soldering.

NOTE 2: All leads to extend one inch beyond flange of coil form.

NOTE 3: Coil form - polystyrene bakelite, 2-15/16" long.

Figure 5-43 — Winding Data, T215 (M-439718)



COMPONENT
OSC. TRANS., BAND 4
SYMBOL DESIGNATION
T216
REF. DWG. M-420957-508

ST-START WINDING
FIN-FINISH WINDING

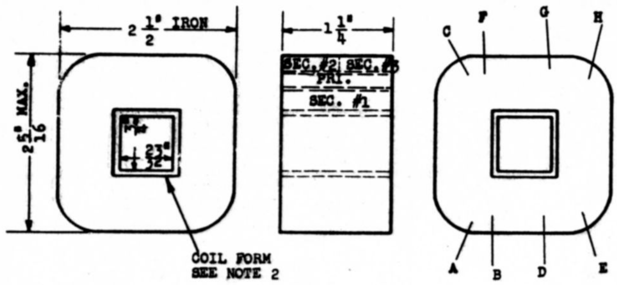
COIL	NO. OF SECTIONS (PIS)	TYPE OF WIRE	WIRE INSULAT'N	TYPE OF WINDING	TURNS PER SECTION	TAP NO. 1 TURNS FROM START
1	1	AWG. #14	DC	Close, Single Layer	3-1/2	1-7/8

NOTE 1: Wrap tape around tap leads after soldering.

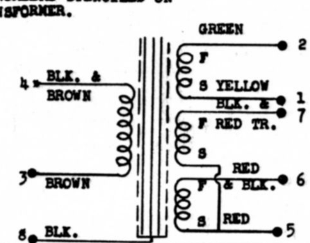
NOTE 2: All leads to extend one inch beyond flange of coil form.

NOTE 3: Coil Form - Polystyrene Bakelite, 2-15/16" long

Figure 5-44 — Winding Data, T216 (M-439717)



NOTE 1: NUMBERS ON SCHEMATIC REFER TO NUMBERS STENCILED ON TRANSFORMER.



A	SEC. #1 ST	BROWN
B	SEC. #1 FIN	BLK. & BROWN
C	E.S.S.#1 & E.S.S. #2	BLK.
D	PRI. ST.	YELLOW
E	PRI. FIN.	GREEN
F	SEC.#2 ST. & SEC.#3ST.	RED
G	SEC.#2 FIN.	RED&BLK.
H	SEC. #3 FIN.	BLK. & RED TR.

IMPREGNATE COILS AND CORE WITH MS 41

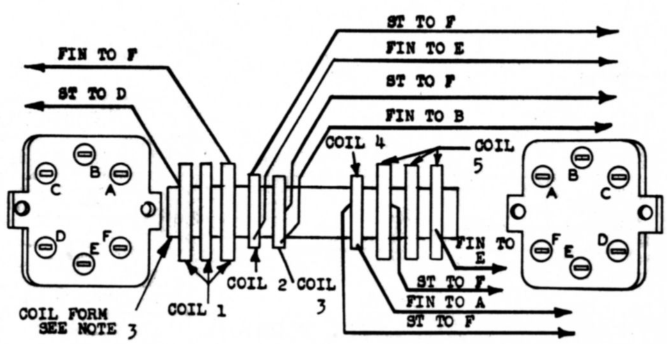
NAME OF COIL	COIL IS WOUND ON (OR OVER)	WIRE SIZE A.W.G.	WIRE INSUL-ATION	WT. OF WIRE (LBS.)	TOTAL TURNS ON COIL	TAP AT TURN NO.	TURNS PER LAYER	WIRE TRAV.	INSULATION BETWEEN LAYERS	INSULATION OVER COILS	D.C. RES. AT 250°C. OHMS
SEC. #1	*TUBE	#31	E	0.030	450	—	94	1.000	1 LAYER 0.008 KRAFT PAPER	2 LAYERS 0.005 KRAFT PAPER LAYER ACETITE.	16.5
E.S.S.#1	SEC. #1	COPPER, 0.002" x 4-5/8" x 1"		—	1	—	1	—	—		—
PRI.	E.S.S.	#35	E	0.128	3600	—	146	1.000	1 LAYER 0.001 KRAFT PAPER		45.0
E.S.S. #2	PRI.	COPPER, 0.002" x 6" x 1"		—	1	—	1	—	—		—
SEC. #2	E.S.S.	#25	E	0.031	71	—	19	0.406	1 LAYER 0.003 KRAFT PAPER		1.1
SEC. #3	E.S.S.	#25	E	0.-31	71	—	19	0.406	1 LAYER 0.003 KRAFT PAPER		1.1

* NOTE 2: 2-1/4 turns of 0.010 Kraft press board.

NOTE 3: Polarity of coils to be additive.

COMPONENT
OUTPUT TRANS.
SYMBOL DESIGNATION
T301
REF. DWG. K-901010-501

Figure 5-45 — Winding Data, T301 (M-439713)



ST-START WINDING
FIN-FINISH WINDING

COIL	NO. OF SECTIONS (PIS)	TYPE OF WIRE	WIRE INSULAT'N	TYPE OF WINDING	TURNS PER SECTION
1	3	Same as No.5	SS	Universal, 4 crosses/turn	50
2	1	AWG.#30E	SS	Universal, 6 crosses/turn	14
3	1	AWG. #30E	SS	Universal, 6 Crosses/turn	14
4	1	AWG. #30E	SS	Close Wound	3
5	3	30 Strands AWG.#44 Litz	SS	Universal, 4 crosses/turn	50

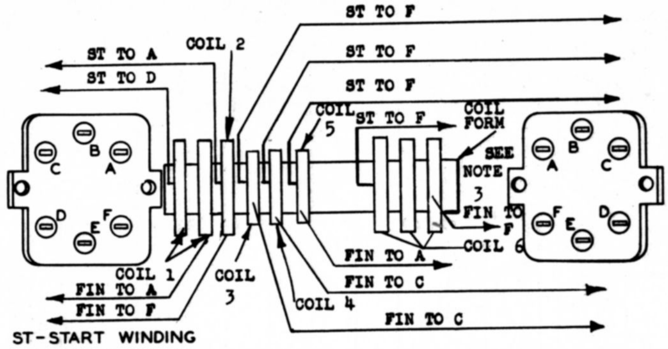
NOTE 1: Start and finish leads to be extended 3# long from coil form.

NOTE 2: Wind coils so that start and finish leads are opposite terminals on side of coils as shown.

NOTE 3: Coil form - polystyrene bakelite, 3.256" long, 0.500" O.D., 0.378" I.D.

COMPONENT
I-F TRANS.
SYMBOL DESIGNATION
T302, 303, 304
REF. DWG. P-720561-504, 505, 506

Figure 5-46 — Winding Data, T302, T303, T304 (M-439716)



ST-START WINDING
FIN-FINISH WINDING

COIL	NO. OF SECTIONS (PIS)	TYPE OF WIRE	WIRE INSULAT'N	TYPE OF WINDING	TURNS PER SECTION	START	FINISH	TOTAL INDUCTANCE OF COIL
1	2	Same as No. 6	SS	Universal, 4 crosses/turn	50	—	—	—
2	1	30 Strands AWG. #44 Litz	SS	Universal, 4 crosses/turn	50	—	—	—
3	1	AWG. #30E	SS	Universal, 6 crosses/turn	14	—	—	—
4	1	AWG. #30E	SS	Universal, 6 crosses/turn	14	—	—	—
5	1	AWG. #30E	SS	Universal, 6 crosses/turn	13	—	—	—
6	3	30 Strands AWG. #44 Litz	SS	Universal, 4 crosses/turn	50	—	—	—

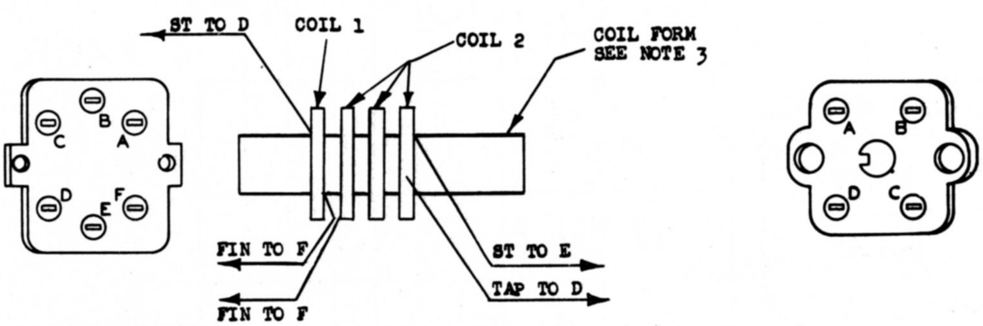
COMPONENT
DIODE TRANS.
SYMBOL DESIGNATION
T305
REF. DWG. P-720561-503

NOTE 1: Start and finish leads to be extended 3" long from coil form.

NOTE 2: Wind coils so that start and finish leads are opposite terminals on side of coils as shown.

NOTE 3: Coil form - polystyrene bakelite, 3.256" long, 0.500" O.D., 0.378" I.D.

Figure 5-47 — Winding Data, T305 (M-439703)



ST-START WINDING
FIN-FINISH WINDING

COIL	NO. OF SECTIONS (PIS)	TYPE OF WIRE	WIRE INSULAT'N	TYPE OF WINDING	TURNS PER SECTION	TAP NO. 1 TURNS FROM START
1	1	30 Strands AWG. #44 Litz	SS	Universal, 4 crosses/turn	54	
2	3		SS		44	21

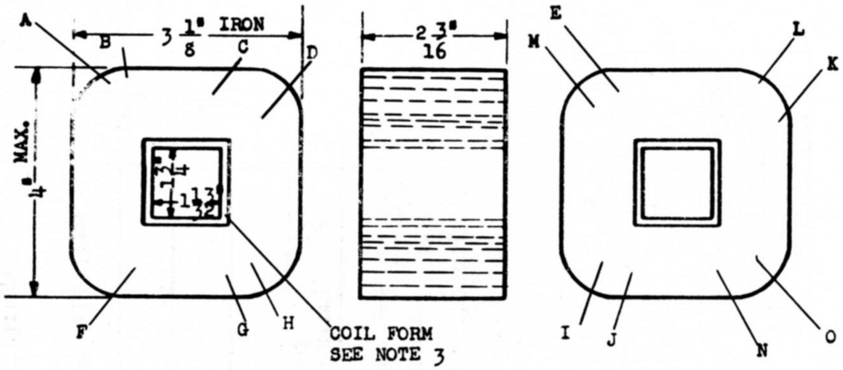
NOTE 1: Wind coils so that start and finish leads are opposite terminals on side of coils as shown.

NOTE 2: Start, tap, and finish leads to be 1-1/4" long, strip and completely tin 1/2".

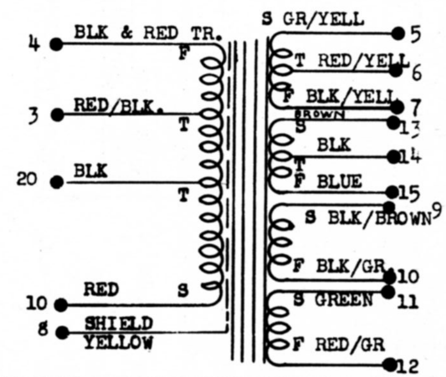
NOTE 3: Coil Form - polystyrene bakelite, 2.187" long, 0.500" O.D., 0.378" I.D.

COMPONENT
CW OSC. TRANS.
SYMBOL DESIGNATION
T306
REF. DWG. P-720561-502

Figure 5-48 — Winding Data, T306 (M-439743)



NOTE 1: NUMBERS ON SCHEMATIC REFER TO NUMBERS STENCILLIED ON TRANSFORMER.



A	PRI. ST.	RED
B	PRI. 248 TAP	BLK.
C	PRI. 260 TAP	RED/BLK
D	PRI. FIN.	BLK/RED TR
E	SHIELD	YELLOW
F	PLATE ST.	GR/YELLOW
G	PLATE TAP	RED/YELL.
H	PLATE FIN.	BLK/YELL
I	FIL. #2 ST.	BLK/BROWN
J	FIL. #2 FIN.	BLK/GR
K	FIL. #1 ST	BROWN
L	FIL. #1 TAP	BLK.
M	FIL. #1 FIN.	BLUE
N	FIL. #3 ST	GREEN
O	FIL. #3 FIN.	RED/GR.

IMPREGNATE COILS AND CORE WITH

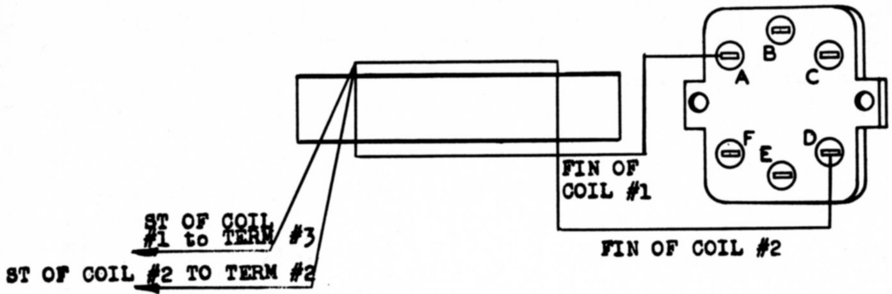
NAME OF COIL	COIL IS WOUND ON (OR OVER)	WIRE SIZE A.W.G.	WIRE INSUL-ATION	WT. OF WIRE (LBS.)	TOTAL TURNS ON COIL	TAP AT TURN NO.	TURNS PER LAYER	WIRE TRAV.	INSULATION BETWEEN LAYERS	INSULATION OVER COILS	D.C. RES. AT 25°C. OHMS
PRI.	*TUBE	#18	E	0.66	272	248 - 260	44	1.97	1 LAYER 0.005 KRAFT PAPER	2 LAYERS 0.005 KRAFT, 1 LAYER ACETATE	1.02
SHIELD	PRI.	COPPER, 1-15/16" x 10" x 0.002"		—	1	—	1	—	—		—
PLATE	SHIELD	#29	E	0.300	1350	675	150	1.97	1 LAYER 0.003 KRAFT PAPER		0.95
FIL. #1	PLATE	D.C.C., 0.095" x 0.095"		0.340	16	8	16	1.76	—		—
FIL. #2	FIL. #1	#20	E	0.111	41	—	41	1.48	—		—
FIL. #3	FIL. #2	#18 2 PARAL.	E	0.103	12	—	12	1.07	—		—

NOTE 2: POLARITY OF COILS TO BE ADDITIVE.

NOTE 3: COIL FORM - 2-1/4 TURNS OF 0.015 THICK KRAFT PRESS BOARD.

COMPONENT
POWER TRANS.
SYMBOL DESIGNATION
T401
REF. DWG K-901013-501

Figure 5-49 — Winding Data, T401 (M-439714)



COMPONENT
OUTPUT FILTER
SYMBOL DESIGNATION
Z301
REF. DWG.M-421251-501

ST-START WINDING
FIN-FINISH WINDING

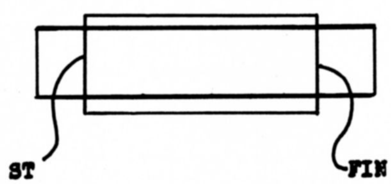
COIL	NO. OF SECTIONS (PIS)	TYPE OF WIRE	WIRE INSULAT'N	TYPE OF WINDING	TURNS PER SECTION
1	—	AWG. #28	DC	Wind Together in Bifilar Single Layer, R.H., Close wound	25
2	—	AWG. #28	DC		25

NOTE 1: Strip and tin ends of all leads 1/2-inch, solder all connections.

NOTE 2: Impregnate with Superla wax

NOTE 3: Coil form - laminated phenolic, 1/2" long.

Figure 5-50 — Winding Data, Z301 (M-439715)



COMPONENT
METER FILTER
SYMBOL DESIGNATION
Z302
REF. DWG.K-865456-501

ST-START WINDING
FIN-FINISH WINDING

COIL	NO. OF SECTIONS (PIS)	TYPE OF WIRE	WIRE INSULAT'N	TYPE OF WINDING	TURNS PER SECTION
1	—	AWG. #28 Magnet	DC	Single Layer R.H., Close Wound	25

NOTE 1: Extend leads 1-1/4" from finish end of coil form, strip and tin 1/2".

NOTE 2: Coil form - laminated phenolic, 1-3/8" long.

Figure 5-51 — Winding Data, Z302 (M-439720)

SECTION VI – PARTS LISTS

TABLE I
LIST OF MAJOR UNITS
FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

RBB/RBC NOs-73056
RBB-1/RBC-1 NOs-91265

RBB-2/RBC-2 NXss-17001
RBB-2/RBC-2 NXsr-39262

QUANTITY RBB	QUANTITY RBC	SYMBOL GROUP	NAVY TYPE DESIGNATION	NAME OF MAJOR UNIT	ASSEMBLY DRAWING NUMBER
1		100 - 199 300 - 399	CRV-46147	RADIO RECEIVER (PRESELECTOR UNIT) RADIO RECEIVER (I-F/A-F UNIT)	W-303070-501 W-303029-501
	1	200 - 299 300 - 399	CRV-46148	RADIO RECEIVER (PRESELECTOR UNIT) RADIO RECEIVER (I-F/A-F UNIT)	W-303070-502 W-303029-502
1	1	400 - 499	CRV-20130	RECTIFIER POWER UNIT	T-620186-501

IB-38094/38094-1/38216/38269

PRESELECTOR UNIT
RBB, RBB-1, RBB-2

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION
FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT RBB RBB-1 RBB-2 *	EQUIPMENT RBC RBC-1 RBC-2 *	EQUIPMENT RBB-2 ↓	EQUIPMENT RBC-2 ↓	BASE RBB	BASE RBC	BASE RBB-1 RBB-2 *	BASE RBC-1 RBC-2 *	TENDER RBB-2 ↓	TENDER RBC-2 ↓	STOCK RBB-2 ↓	STOCK RBC-2 ↓	ALL SYMBOL DESIGNATIONS INVOLVED
						STRUCTURAL PARTS														
A-101	Antenna Box	Assembly consists of: aluminum box and cover, C-129,130,131,132,133,134,135,136, E-110,111, 112,112A, T-101,102,103,104, S-101,102			1		T-620192-501									1		1		A-101 (Qty/Eq.1)
A-102	1st R-F Box	Assembly consists of: aluminum box and cover, C-137,138,139,140, E-113,114,114A,115,129,136, L-101, S-103, T-105,106,107,108, X-101			1		T-620193-501									1		1		A-102 (Qty/Eq.1)
A-103	2nd R-F Box	Assembly consists of: aluminum box and cover, C-141,142,143,144, E-116,117,118,118A,129,136, T-109,110,111,112, S-104, X-102			1		T-620193-503									1		1		A-103 (Qty/Eq.1)
A-104	Oscillator Box	Assembly consists of: aluminum box and cover, C-101,102,103,104,121,123,127,145,146,147,148, E-119,120,120A,121,122,129,136, S-105,106, T-113,114,115,116, X-103			1		T-620194-501									1		1		A-104 (Qty/Eq.1)
A-105	Lord Mounting for Receiver Cabinet	Square plate type, 2-1/4" square, 2" O.D., 25/64" I.D., 15 lbs. load rating at 1/16" deflection			27	Cat. # 200P15	K-856017-12			1	1					2	2	4	4	A-105,205 (Qty/Eq.4)
A-106	Lord Mounting for Receiver Cabinet	Square plate type, 2-1/4" square, 2" O.D., 25/64" I.D., 20 lbs. load rating at 1/16" deflection			27	Cat. # 200P20	K-856017-13			1	1					2	2	4	4	A-106,206 (Qty/Eq.4)
						CAPACITORS														
C-101	Oscillator Temperature Compensator Capacitor, Band 1	Fixed, ceramic, 15 mmfd ±5%, 500 v d.c. working, temp. coeff. ±15%/°C			16	Ceramicon N470-15 ±15%	K-874805-6	1		1						1		1		C-101 (Qty/Eq.1)
C-102	Oscillator Temperature Compensator Capacitor, Band 2	Fixed, ceramic, 10 mmfd ±5%, 500 v d.c. working, temp. coeff. ±15%/°C			16	Ceramicon N750-10 ±15%	K-874805-7	1		1						2		2		C-102,103 (Qty/Eq.2)
C-103	Oscillator Temperature Compensator Capacitor, Band 3	Same as C-102																		
C-104	Oscillator Temperature Compensator Capacitor, Band 4	Fixed, ceramic, 12 mmfd ±5%, 500 v d.c. working, temp. coeff. ±15%/°C			16	Ceramicon N470-12 ±15%	K-874805-8	1		1						1		1		C-104 (Qty/Eq.1)
C-105	Oscillator Grid Capacitor (Part of E-120)	Fixed, molded mica, 50 mmfd ±10%, 500 v d.c. working, temp. coeff. 0.01%/°C., low-loss case	-48895-D10	RE 48A 154	2,13 16,29 34	1469, 5RS M1K50, PO MOSDW	P-720473-4	1	1	1	1					2	1	2	1	C-105,305 (Qty/Eq.2)

* For Contract NXss-17001 (RBB-2/RBC-2)
↓ For Contract NXsr-39262 (RBB-2/RBC-2)

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION
FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

PRESELECTOR UNIT (Continued)

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT RBB RBB-1 RBB-2 *	EQUIPMENT RBC RBC-1 RBC-2 *	EQUIPMENT RBB-2 ↓	EQUIPMENT RBC-2 ↓	BASE RBB	BASE RBC	BASE RBB-1 RBB-2 *	BASE RBC-1 RBC-2 *	TENDER RBB-2 ↓	TENDER RBC-2 ↓	STOCK RBB-2 ↓	STOCK RBC-2 ↓	ALL SYMBOL DESIGNATIONS INVOLVED
		CAPACITORS (Continued)																		
C-106	1st R-F Wave Trap Capacitor (Part of L-101)	Fixed, molded mica, 500 mmfd ±10%, 500 v d.c. working, temp. coeff. ±0.01%/°C, low loss case	-48691-D10	RE 48A 154	2 13 16 29 34	1469 5RS M7K500 PO MOSDW	P-720473-8	2	2	1	1					3	2	4	3	C-106,319,371 376 (Qty/Eq.4)
C-107	Antenna Dummy Capacitor (Part of W-102)	Fixed, molded mica, 500 mmfd ±5%, 500 v d.c. working, temp. coeff. ±0.01%/°C, low loss case	-48691-D5	RE 48A 154	2 13 16 29 34 245	1469 5RS M1K500 PO MOSDW 603M	P-720538-47	5	4	2	2					6	5	9	8	C-107,310,311 312,313,314 315,316,317 (Qty/Eq.9)
C-108	Oscillator Series Padding Capacitor, Band 1 (Part of T-113)	Fixed, molded mica, 260 mmfd ±1%, 500 v d.c. working, temp. coeff. 0% to 0.005%/°C, low loss case	-481433-F1	RE 48A 154	2 16	1469 M2J260	P-721081-14	1		1						1		1		C-108 (Qty/Eq.1)
C-109	Oscillator Series Padding Capacitor, Band 2 (Part of T-114)	Fixed, molded mica, 415 mmfd ±1%, 500 v d.c. working, temp. coeff. 0% to 0.005%/°C, low loss case	-481434-F1	RE 48A 154	2 16	1479 M3J415	P-721081-15	1		1						1		1		C-109 (Qty/Eq.1)
C-110	Oscillator Series Padding Capacitor, Band 3 (Part of T-115)	Fixed, molded mica, 630 mmfd ±2%, 500 v d.c. working, temp. coeff. 0% to 0.01%/°C, low loss case	-481435-E2	RE 48A 154	2 16	1479 M5J630	P-721081-16	1		1						1		1		C-110 (Qty/Eq.1)
C-111	Oscillator Series Padding Capacitor, Band 4 (Part of T-116)	Fixed, molded mica, 980 mmfd ±2%, 500 v d.c. working, temp. coeff. 0% to 0.01%/°C, low loss case	-481436-E2	RE 48A 154	2 16	1479 M7J980	P-721081-17	1		1						1		1		C-111 (Qty/Eq.1)
C-112	1st R-F Grid Filter Capacitor (Part of E-112)	Fixed, molded mica, 5000 mmfd ±10%, 300 v d.c. working, low loss case	-481425-B10	RE 48A 154	2	1441W	P-720592-5	7	6	3	3					8	8	13	12	C-112,113,114 222,223,324 325,326,327 329,353,354 368,369,375 (Qty/Eq.15)
C-113	2nd R-F Grid Filter Capacitor (Part of E-114)	Same as C-112	-481425-B10																	
C-114	1st Detector Grid Capacitor (Part of E-118)	Same as C-112	-481425-B10																	

* For Contract NXss-17001 (RBB-2/RBC-2)
↓ For Contract NXsr-39262 (RBB-2/RBC-2)

PRESELECTOR UNIT (Continued)

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION
FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT RBB RBB-1 RBB-2*	EQUIPMENT RBC RBC-1 RBC-2*	EQUIPMENT RBB-2↓	EQUIPMENT RBC-2↓	BASE RBB	BASE RBC	BASE RBB-1 RBB-2*	BASE RBC-1 RBC-2*	TENDER RBB-2↓	TENDER RBC-2↓	STOCK RBB-2↓	STOCK RBC-2↓	ALL SYMBOL DESIGNATIONS INVOLVED
				CAPACITORS (Continued)																
C-115	1st R-F Cathode By-pass Capacitor (Part of E-114)	Fixed, molded mica, 10,000 mmfd ±10%, 300 v d.c. working, low-loss case	-48938-B10	RE 48A 154	2	1441W	P-720592-6	20	20	8	8					23	22	38	36	C-115,116,117 118,119,120 121,122,124 125,126,127 225,226,227 228,229,230 231,232,234 235,322,328 330,331,332 333,334,335 336,337,338 349,357,358 359,360,361 362,363,364 365,366,367 370,372,374 401,402 (Qty/Eq.50)
C-116	1st R-F Screen By-pass Capacitor (Part of E-114)	Same as C-115	-48938-B10																	
C-117	1st R-F Plate By-pass Capacitor (Part of E-114)	Same as C-115	-48938-B10																	
C-118	2nd R-F Cathode By-pass Capacitor (Part of E-118)	Same as C-115	-48938-B10																	
C-119	2nd R-F Screen By-pass Capacitor (Part of E-118)	Same as C-115	-48938-B10																	
C-120	2nd R-F Plate By-pass Capacitor (Part of E-118)	Same as C-115	-48938-B10																	
C-121	Oscillator Heater By-pass Capacitor	Same as C-115	-48938-B10																	
C-122	Oscillator Plate By-pass Capacitor	Same as C-115	-48938-B10																	
C-123	Oscillator Screen By-pass Capacitor	Fixed, molded mica, 10,000 mmfd ±10%, 300 v d.c. working, low loss case	-48848-B10	RE 48A 154	2	1467LS	P-720592-7	3	3	1	1					3	3	5	5	C-123,233,320 339,355,356 (Qty/Eq.6)

* For Contract NXss-17001 (RBB-2/RBC-2)
↓ For Contract NXsr-39262 (RBB-2/RBC-2)

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION
FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

PRESELECTOR UNIT (Continued)

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT				BASE				TENDER		STOCK		ALL SYMBOL DESIGNATIONS INVOLVED
								RBB RBB-1 RBB-2 *	RBC RBC-1 RBC-2 *	RBB-2 ↓	RBC-2 ↓	RBB	RBC	RBB-1 RBB-2 *	RBC-1 RBC-2 *	RBB-2 ↓	RBC-2 ↓	RBB-2 ↓	RBC-2 ↓	
		CAPACITORS (Continued)																		
C-124	1st Detector Cathode Coupling Capacitor	Same as C-115	-48938-B10																	
C-125	1st Detector Screen By-pass Capacitor	Same as C-115	-48938-B10																	
C-126	1st Detector Cathode By-pass Capacitor (Part of E-107)	Same as C-115	-48938-B10																	
C-127	Oscillator Screen Filter Capacitor	Same as C-115	-48938-B10																	
C-128	Antenna Compensator Capacitor	Variable, air dielectric, 15 mmfd ±10%, max. capacity, 2 stator, 3 rotor plates, shaft 0.249" dia. x 25/32" long, ceramic base 1/4" thick, plates and contacts silver plated	-481377		19	APC	P-720536-5	1	1	1	1					2	2	2	2	C-128,236,301 (Qty/Eq.3)
C-129	Antenna Link Trimmer Capacitor, Band 1	Variable, air dielectric, 27 mmfd ±10%, max. capacity, 4 stator, 5 rotor plates, shaft 0.249" dia. x 11/32" long, screwdriver slot, ceramic base 1/4" thick, plates and contacts silver plated	-481378	RE 13A 317	19	APC	P-720536-4	5	5	4	4					12	12	20	20	C-129,130,131 132,133,134 135,136,137 138,139,140 141,142,143 144,145,146 147,148,237 238,239,240 241,242,243 244,245,246 247,248,249 250,251,252 253,254,255 256 (Qty/Eq.40)
C-130	Antenna Link Trimmer Capacitor, Band 2	Same as C-129	-481378																	
C-131	Antenna Link Trimmer Capacitor, Band 3	Same as C-129	-481378																	
C-132	Antenna Link Trimmer Capacitor, Band 4	Same as C-129	-481378																	
C-133	1st R-F Grid Trimmer Capacitor, Band 1	Same as C-129	-481378																	

* *For Contract NXss-17001 (RBB-2/RBC-2)*
↓ *For Contract NXsr-39262 (RBB-2/RBC-2)*

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION
FOR MODELS RBB/RBC, RBB-1/RBC-1 RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

PRESELECTOR UNIT (Continued)

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT				BASE				TENDER		STOCK		ALL SYMBOL DESIGNATIONS INVOLVED
								RBB RBB-1 RBB-2 *	RBC RBC-1 RBC-2 *	RBB-2 ↓	RBC-2 ↓	RBB	RBC	RBB-1 RBB-2 *	RBC-1 RBC-2 *	RBB-2 ↓	RBC-2 ↓	RBB-2 ↓	RBC-2 ↓	
				CAPACITORS (Continued)																
C-134	1st R-F Grid Trimmer Capacitor, Band 2	Same as C-129	-481378																	
C-135	1st R-F Grid Trimmer Capacitor, Band 3	Same as C-129	-481378																	
C-136	1st R-F Grid Trimmer Capacitor, Band 4	Same as C-129	-481378																	
C-137	2nd R-F Grid Trimmer Capacitor, Band 1	Same as C-129	-481378																	
C-138	2nd R-F Grid Trimmer Capacitor, Band 2	Same as C-129	-481378																	
C-139	2nd R-F Grid Trimmer Capacitor, Band 3	Same as C-129	-481378																	
C-140	2nd R-F Grid Trimmer Capacitor, Band 4	Same as C-129	-481378																	
C-141	1st Detector Grid Trimmer Capacitor, Band 1	Same as C-129	-481378																	
C-142	1st Detector Grid Trimmer Capacitor, Band 2	Same as C-129	-481378																	
C-143	1st Detector Grid Trimmer Capacitor, Band 3	Same as C-129	-481378																	
C-144	1st Detector Grid Trimmer Capacitor, Band 4	Same as C-129	-481378																	
C-145	Oscillator Parallel Trimmer Capacitor, Band 1	Same as C-129	-481378																	
C-146	Oscillator Parallel Trimmer Capacitor, Band 2	Same as C-129	-481378																	
C-147	Oscillator Parallel Trimmer Capacitor, Band 3	Same as C-129	-481378																	
C-148	Oscillator Parallel Trimmer Capacitor, Band 4	Same as C-129	-481378																	

* For Contract NXss-17001 (RBB-2/RBC-2)
↓ For Contract NXsr-39262 (RBB-2/RBC-2)

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION
FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

PRESELECTOR UNIT (Continued)

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT				BASE				TENDER		STOCK		ALL SYMBOL DESIGNATIONS INVOLVED
								RBB RBB-1 RBB-2*	RBC RBC-1 RBC-2*	RBB-2↓	RBC-2↓	RBB	RBC	RBB-1 RBB-2*	RBC-1 RBC-2*	RBB-2↓	RBC-2↓	RBB-2↓	RBC-2↓	
				CAPACITORS (Continued)																
C-149	Main Tuning Capacitor	Variable, 5 gang, each section effective capacity 142.2 mmfd ±1%, min. 13.0 mmfd, temp. coeff. limits +30% to +90%/°C, contacts and plates silver plated			33		P-720545-2									1		1		C-149 (Qty/Eq.1)
C-150	Antenna Decoupling Capacitor (Part of E-105)	Fixed, molded mica, 1000 mmfd ±10%, 500 v d.c. working, low loss case	-481657-B10	RE 48A 154	2	1468LS	P-720592-19	1		1						1		1		C-150 (Qty/Eq.1)
				MISCELLANEOUS ELECTRICAL PARTS																
E-101	Tuning Knob on Front Panel	Assembly consists of: black molded compound knob with laminated insulated handle attached with a 31/32" long pin, counterbored 0.297" dia., 1-15/16" overall length			1		M-420927-501											1	1	E-101,201 (Qty/Eq.2)
E-102	Band Change Knob on Front Panel	Black molded compound, face 2" O.D., rear 1-3/4" O.D., 1-1/4" long, 2 holes tapped #10-32 threads, counterbore 0.199" dia. x 1/8" deep			1		K-856791-1											1	1	E-102,202 (Qty/Eq.2)
E-103	Round Pull Knobs Used for Removal of Chassis Provided on Front Panel	Black nickel finish, tapped #8-32 threads for 5/8" min.			486	Cat. #0488	K-843730-1											2	2	E-103,203,336 401 (Qty/Eq.5)
E-104	"Ant. Comp" Knob on Front Panel	Black molded compound, face 1" O.D., 5/8" long, tapped #8-32 threads, white line engraved on face, complete with brass insert and #8-32 setscrew			1		M-421027-501											4	4	E-104,204,305 (Qty/Eq.5)
E-105	Terminal Board TB-7 for Ant. Link at Left Side of Preselector Unit	Assembly consists of: terminal board E-105A with C-150, R-101, four brass links and assembling hardware			1		K-856464-501													E-105 (Qty/Eq.1)
E-105A	Terminal Board for E-105	Ceramic insulation, wax impregnated, 1-7/8" x 1-1/2" x 3/16", 6 brass terminals 0.136" dia.		RE 13A 317F	165		M-420895-503			1	1					1	1	1	1	E-105A,209A (Qty/Eq.2)
E-106	Stand-off Insulator for Transmission Line	Steatite ceramic, tubular type, both ends 1/2" O.D., both ends tapped #6-32 threads for 1/4", 11/16" long	-61172	RE 13A 317	22		K-823568-7													E-106,205 (Qty/Eq.2)
E-107	Terminal Board TB-6 Located Against Front Panel of Preselector Unit	Assembly consists of: terminal board E-107A with C-126, R-112,118,119,121,128 and assembling hardware			1		P-721107-503													E-107 (Qty/Eq.1)

* For Contract NXss-17001 (RBB-2/RBC-2)
↓ For Contract NXsr-39262 (RBB-2/RBC-2)

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION
FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

PRESELECTOR UNIT (Continued)

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT RBB RBB-1 RBB-2 *	EQUIPMENT RBC RBC-1 RBC-2 *	EQUIPMENT RBB-2 ↓	EQUIPMENT RBC-2 ↓	BASE RBB	BASE RBC	BASE RBB-1 RBB-2 *	BASE RBC-1 RBC-2 *	TENDER RBB-2 ↓	TENDER RBC-2 ↓	STOCK RBB-2 ↓	STOCK RBC-2 ↓	ALL SYMBOL DESIGNATIONS INVOLVED
							MISCELLANEOUS ELECTRICAL PARTS (Continued)													
E-107A	Terminal Board for E-107	Laminated phenolic, insulated material, 3-1/8" x 1-3/4" x 3/32", 12 brass terminals 0.128" dia., two mounting holes 0.173" dia.		17-P-5 Type FBE	1		K-866365-501													E-107A, 208A, 311A (Qty/Eq.3)
E-108	Not Used																			
E-109	Not Used																			
E-110	Terminal Board TB-2 for Antenna Box (A-101) Connections Located at Left Side of Preselector Unit	Laminated phenolic, 2-1/8" x 7/8" x 3/32", one brass, link in center, 2 holes 9/32" dia., 2 holes 0.154" dia.		17-P-5 Type FBE	1		K-856344-501													
E-111	Bushing Insulators for Terminal Screws in Antenna Box (A-101)	Steatite ceramic, 1/2" O.D., 0.173" I.D., 3/8" shank O.D., 0.425" long	-61260	RE 13A 317	22		K-818952-13			7	7					14	14	28	28	E-111, 115, 116, 121, 211, 214, 215, 220, 227, 310 (Qty/Eq.45)
E-112	Terminal Board (TB-1) for Antenna Box (A-101) Located Near C-131, 132	Assembly consists of: terminal board E-112A with C-112, R-109 and assembling hardware			1		P-721107-505													E-112 (Qty/Eq.1)
E-112A	Terminal Board for E-112	Laminated phenolic, 1-3/4" x 1-9/16" x 3/32", 4 brass terminals 0.128" dia., 2 mounting holes 0.173" dia.		17-P-5 Type FBE	1		K-856671-501													E-112A (Qty/Eq.1)
E-113	Terminal Board (TB-2) for 1st R-F Box (A-102) Connections Located at Left Side of Preselector Unit	Laminated phenolic, 4" x 1-1/8" x 3/32", 5 brass links, 2 mounting holes 0.173" dia.		17-P-5 Type FBE	1		K-856342-501													E-113, 212 (Qty/Eq.2)
E-114	Terminal Board (TB-1) for 1st R-F Box (A-102) Located Near T-105	Assembly consists of; terminal board E-114A with C-113, 115, 116, 117, R-102, 105, 110, 113, 122, 124 and assembling hardware			1		P-721107-502													E-114 (Qty/Eq.2)
E-114A	Terminal Board for E-114	Laminated phenolic, 3-9/16" x 1-3/4" x 3/32", 16 brass terminals 0.128" dia., two mounting holes 0.173" dia.		17-P-5 Type FBE	1		K-864544-501													E-114A, 118A, 213A, 218A, 303A (Qty/Eq.5)
E-115	Bushing Insulators for Terminal Screws in 1st R-F Box (A-102)	Same as E-111	-61260																	

* For Contract NXss-17001 (RBB-2/RBC-2)
↓ For Contract NXsr-39262 (RBB-2/RBC-2)

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

PRESELECTOR UNIT (Continued)

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT RBB RBB-1 RBB-2 *	EQUIPMENT RBC RBC-1 RBC-2 *	EQUIPMENT RBB-2 ↓	EQUIPMENT RBC-2 ↓	BASE RBB	BASE RBC	BASE RBB-1 RBB-2 *	BASE RBC-1 RBC-2 *	TENDER RBB-2 ↓	TENDER RBC-2 ↓	STOCK RBB-2 ↓	STOCK RBC-2 ↓	ALL SYMBOL DESIGNATIONS INVOLVED
		MISCELLANEOUS ELECTRICAL PARTS (Continued)																		
E-116	Bushing Insulators for Terminal Screws in 2nd R-F Box (A-103)	Same as E-111	-61260																	
E-117	Terminal Board (TB-2) for 2nd R-F Box (A-103) Connections Located at Left Side of Preselector Unit	Laminated phenolic, 4" x 1-1/8" x 3/32", 4 terminals		17-P-5 Type FBE	1		K-856342-502													E-117 (Qty/Eq.1)
E-118	Terminal Board (TB-1) for 2nd R-F Box (A-103) Located Near T-109	Assembly consists of: terminal board E-118A with C-114,118,119,120, R-103,106,111,114,123,125 and assembling hardware			1		P-721107-507													E-118 (Qty/Eq.1)
E-118A	Terminal Board for E-118	Same as E-114A																		
E-119	Terminal Board (TB-4) for Oscillator Box (A-104) Connections Located at Left Sides of Preselector Unit	Laminated phenolic, 2-15/16" x 1-1/8" x 3/32", 3 brass terminals		17-P-5 Type FBE	1		K-856341-501													E-119,219 (Qty/Eq.2)
E-120	Terminal Board (TB-1) for Oscillator Box (A-104) Located Near C-123	Assembly consists of: terminal board E-120A with C-105, R-108,115 and assembling hardware			1		P-721107-504													E-120 (Qty/Eq.1)
E-120A	Terminal Board for E-120	Ceramic insulation, wax impregnated, 1-7/8" x 1-1/2" x 3/16", 6 brass terminals		RE 13A 317F	165		M-420895-502			1						1		1		E-120A (Qty/Eq.1)
E-121	Bushing Insulator for Terminal Screws in Oscillator Box (A-104)	Same as E-111	-61260																	
E-122	Terminal Board (TB-2) for Oscillator Box (A-104) Located Near X-103	Ceramic insulation, wax impregnated, 1-11/16" x 1/2" x 1/4", 3 holes 0.154" dia.		RE 13A 317	1		K-864764-1													E-122,222 (Qty/Eq.2)
E-123	Not Used																			
E-124	Terminal Lug for Wiring Material W-102	Brass, 0.0254" thick, 0.750" long, 0.500" O.D. one end			1		K-821880-1			1	15					1	15	1	15	E-124,233 (Qty/Eq.2)
E-125	Spade Terminal for Wiring Material W-102	Brass, 0.032" thick, 0.813" long, 0.281" O.D., one end			1		K-806765-1			9	9					9	9	9	9	E-125,228 (Qty/Eq.9)

* For Contract NXss-17001 (RBB-2/RBC-2)
↓ For Contract NXsr-39262 (RBB-2/RBC-2)

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION
FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

PRESELECTOR UNIT (Continued)

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT RBB RBB-1 RBB-2*	EQUIPMENT RBC RBC-1 RBC-2*	EQUIPMENT RBB-2↓	EQUIPMENT RBC-2↓	BASE RBB	BASE RBC	BASE RBB-1 RBB-2*	BASE RBC-1 RBC-2*	TENDER RBB-2↓	TENDER RBC-2↓	STOCK RBB-2↓	STOCK RBC-2↓	ALL SYMBOL DESIGNATIONS INVOLVED
MISCELLANEOUS ELECTRICAL PARTS (Continued)																				
E-126	Insulation for Wiring Material W-102	Fish paper, 1-1/2" long, 5/8" wide, 0.010" thick			1		K-59107-73			3	1					3	1	3	1	E-126,325 (Qty/Eq.4)
E-127	Insulation for Wiring Material W-102	Fish paper, 3/4" long, 1/2" wide, 0.010" thick			1		K-59107-74			1						1		1		E-127 (Qty/Eq.1)
E-128	Insulation for Wiring Material W-102	Fish paper, 3" long, 1.750" wide, 0.010" thick, 1/4" wide cutout 7/8" deep			1		K-881824-1			1						1		1		E-128 (Qty/Eq.1)
E-129	Spring and Bracket for A-102,103,104	Assembly consists of: brass bracket, 0.020" thick x 57/64" x 1-49/64", phosphor bronze spring 2" developed length, 0.187" wide, 0.025" thick, and laminated metal guide 17/32" developed length, 5/16" wide, 0.055" thick			1		K-865511-501			4	4					6	6	10	10	E-129,235 (Qty/Eq.6)
E-130	Not Used																			
E-131	Insulator Material	Laminated phenolic, 12" long, 1/2" dia.		17-P-5 Type PBE Form R	1		K-885325-2									1	1			E-131,229 (Qty/Eq.2)
E-132	Insulator Material	Laminated phenolic, 12" long, 1" dia.		17-P-5 Type PBE Form R	1		K-885325-1									1	1			E-132,230 (Qty/Eq.2)
E-133	Insulator Material	Polystyrene rod, 6" long, 1" dia.			90a	XMS-10023	K-885325-3									1	1			E-133,231 (Qty/Eq.2)
E-134	Insulation Material	Laminated phenolic, 6" x 12" x 1/8"		17-P-5 Type PBE Form S	1		K-885326-1									2	2			E-134,232 (Qty/Eq.2)
E-135	Not Used																			
E-136	Contact for Octal Sockets X-101,102, 103,104,106	Silver plated with end hot tin dipped			6		M-421395-12	68	68	4	4					6	6	10	10	E-136,234,335 403 (Qty/Eq.23)
HARDWARE																				
H-101	Allen Wrench	#8, 5/64" wide			5		K-828505-12	1	1	1	1					1	1	2	2	H-101,201 (Qty/Eq.2)
H-102	Allen Wrench	#10, 3/32" wide			5		K-828505-1	1	1	1	1					1	1	2	2	H-102,202 (Qty/Eq.2)
H-103	Setscrews for Tuning Knob (E-101) and Band Change Knob (E-102)	Cup point, socket type, chrome molybdenum steel, 0.190" O.D., 0.0942" I.D., threaded #10-32 threads 3/8" long			5		K-843365-24											4	4	H-103,203 (Qty/Eq.8)
H-104	Screw for Tuning Condenser (C-140)	Stainless steel, 7/16" overall length, threaded #8-32 threads with 0.040" wide undercut 3/16" long, screwdriver slot 0.057" wide, 3/32" deep			1		K-837861-1											1	1	H-104,204 (Qty/Eq.2)

* *For Contract NXss-17001 (RBB-2/RBC-2)*
↓ *For Contract NXsr-39262 (RBB-2/RBC-2)*

RESTRICTED

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

PRESELECTOR UNIT (Continued)

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT RBB RBB-1 RBB-2 *	EQUIPMENT RBC RBC-1 RBC-2 *	EQUIPMENT RBB-2 ↓	EQUIPMENT RBC-2 ↓	BASE RBB	BASE RBC	BASE RBB-1 RBB-2 *	BASE RBC-1 RBC-2 *	TENDER RBB-2 ↓	TENDER RBC-2 ↓	STOCK RBB-2 ↓	STOCK RBC-2 ↓	ALL SYMBOL DESIGNATIONS INVOLVED
				INDICATING DEVICES																
I-101A	Dial Lamp	Panel type, miniature bayonet base, clear, 6.3 v, 0.25 amp., 1.6 watts			18	Mazda 44	K-61114-15			6	6					12	12	18	18	I-101A, 102A, 201A, 202A, 301A (Qty/Eq.5)
I-102A	Dial Lamp	Same as I-101A																		
				JACKS																
J-101A	Antenna Input Jack	Concentric, 1-5/16" long, 7/8" O.D. at one end, threaded 3/4"-20 threads for 13/16"	-49120	RA 49F 215B	485		K-866698-1			1	1					1	1	2	2	J-101A, 201A (Qty/Eq.2)
J-101B	Antenna Jack Casting	Aluminum alloy die casting, threaded 3/4"-20 to fit threads on J-101A, mounting dimensions 1.062" x 1.750"			1		K-866639-1			1	1					1	1	2	2	J-101B-201B (Qty/Eq.2)
				INDUCTANCES																
L-101	1st R-F Screen Wave Trap	Assembly consists of: one coil form over which is wound one wax impregnated coil in three sections, d-c resistance 2.41 ohms, inductance 309.0 microhenries, frequency 400 kc, one core and stud assembly, one triangular music wire spring, one brass bushing 3/8" long, includes C-106 See Winding Data, Figure 5-9 Dwg. No. 439735			1		K-856759-501			1		7		1		1		5		L-101 (Qty/Eq.1)
				DIALS																
N-101	Dial and Mask	Assembly includes N-102, O-109,110			1		W-303058-501									1		1		N-101 (Qty/Eq.1)
N-102	Dial Glass for N-101	Non-glare, 1/16" thick, 4" across top tapered to 2"			122		K-856440-1									1	1	1	1	N-102,202 (Qty/Eq.2)
				MISCELLANEOUS MECHANICAL PARTS																
O-101	Coupling for Tuning Condenser C-149	Assembly consists of: two bushing assemblies, coupling ring, 8 spacers, insulator (E-135) and arm			1		M-422864-501									1	1	1	1	O-101,213 (Qty/Eq.2)

* For Contract NXss-17001 (RBB-2/RBC-2)
↓ For Contract NXsr-39262 (RBB-2/RBC-2)

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION
FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

PRESELECTOR UNIT (Continued)

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT RBB RBB-1 RBB-2 *	EQUIPMENT RBC RBC-1 RBC-2 *	EQUIPMENT RBB-2 ↓	EQUIPMENT RBC-2 ↓	BASE RBB	BASE RBC	BASE RBB-1 RBB-2 *	BASE RBC-1 RBC-2 *	TENDER RBB-2 ↓	TENDER RBC-2 ↓	STOCK RBB-2 ↓	STOCK RBC-2 ↓	ALL SYMBOL DESIGNATIONS INVOLVED
		MISCELLANEOUS MECHANICAL PARTS (Continued)																		
O-102	Receiver Chassis Safety Spring	Phosphor bronze, 3" long, 0.625" wide, 0.064" thick, 2 holes 0.173" dia., 2 holes 0.128" dia			1		K-850922-1			2	2					4	4	10	10	O-102,201,304 (Qty/Eq.3)
O-103	Grounding Spring for Antenna Jack (J-101A)	Phosphor bronze, 2-17/32" long, 1-27/32" wide, 1" dia. hole, 16 slots			1		K-865428-1			1	1					2	2	5	5	O-103,202 (Qty/Eq.2)
O-104	Contact Spring for Strip Near C-149	Phosphor bronze, 5-9/32" long, 3/4" wide, five 0.154" dia. holes, 10 notches			1		K-865594-1			1	1					2	2	5	5	O-104,205 (Qty/Eq.2)
O-105	Spring for Allen Wrenches	Music wire 0.020" dia., right hand wound, 16 turns, 1" long, cadmium plate			1		K-844671-4			2	2					4	4	10	10	O-105,206 (Qty/Eq.4)
O-106	Not Used																			
O-107	Not Used																			
O-108	Not Used																			
O-109	Spring for Dial and Mask (N-101)	Phosphor bronze, 19-1/2 turns, right hand, close wound 0.125" O.D., 0.020" thick, 0.687" long			1		K-856508-1			1	1					2	2	5	5	O-109,210 (Qty/Eq.2)
O-110	Spring for Dial and Mask (N-101)	Music wire, 8 turns, left hand, close wound, 23/64" I.D., 1-29/64" long			1		K-854194-4			1	1					2	2	5	5	O-110,211 (Qty/Eq.2)
O-111	Miter Gear	Brass, 1/2" pitch dia., 32 pitch, 16 teeth			1		K-885821-501									1	1	2	2	O-111,212 (Qty/Eq.2)
		PLUGS																		
P-101	Antenna Input Plug for Jack (J-101A)	Concentric, 2-7/8" long, 13/16" O.D., at knurled end, 9/16" O.D. at other end	-49121	RA 49F216G	485		K-866698-2			1	1					1	1	2	2	P-101,201 (Qty/Eq.2)
P-102	Antenna Input Adapter for Use With Jack (J-101A)	1-23/32" overall length, threaded #10-32 threads for 5/16", complete with Binding post 11/16" long	-49152	RA 49F225A	485		K-868940-1			1	1					1	1	2	2	P-102,202 (Qty/Eq.2)
		RESISTORS																		
R-101	Antenna Series Resistor (Part of E-105)	Fixed, wire wound, pigtail, 100 ohms ±10%, 1/2 watt, insulated	-63678-10		21	BW-1/2	K-867970-350	1	1	1	1					3	2	5	3	R-101,373 (Qty/Eq.2)
R-102	1st R-F Cathode Bias Resistor (Part of E-114)	Fixed, wire wound, pigtail, 120 ohms ±10%, 1/2 watt, insulated	-63678-10		21	BW-1/2	K-867970-351	2		2						5		8		R-102,103,129 (Qty/Eq.3)

* For Contract NXss-17001 (RBB-2/RBC-2)
↓ For Contract NXsr-39262 (RBB-2/RBC-2)

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION
FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

PRESELECTOR UNIT (Continued)

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT RBB RBB-1 RBB-2*	EQUIPMENT RBC RBC-1 RBC-2*	EQUIPMENT RBB-2↓	EQUIPMENT RBC-2↓	BASE RBB	BASE RBC	BASE RBB-1 RBB-2*	BASE RBC-1 RBC-2*	TENDER RBB-2↓	TENDER RBC-2↓	STOCK RBB-2↓	STOCK RBC-2↓	ALL SYMBOL DESIGNATIONS INVOLVED
				RESISTORS (Continued)																
R-103	2nd R-F Cathode Bias Resistor (Part of E-118)	Same as R-102	-63678-10																	
R-104	1st Detector Cathode Resistor	Fixed, composition, pigtail, 1000 ohms ±10%, 1/2 watt, insulated	-63360		21	BT-1/2	K-850981-62	2	1	2	1					5	3	8	5	R-104,313,314 (Qty/Eq.3)
R-105	1st R-F Plate Filter Resistor (Part of E-114)	Fixed, composition, pigtail, 4700 ohms ±10%, 1/2 watt, insulated	-63360		21	BT-1/2	K-850981-70	4	4	4	4					11	11	18	18	R-105,106,107 121,203,205 206,207,316 318,319 (Qty/Eq.11)
R-106	2nd R-F Plate Filter Resistor (Part of E-118)	Same as R-105	-63360																	
R-107	Oscillator Plate Resistor	Same as R-105	-63360																	
R-108	Oscillator Grid Leak Resistor (Part of E-120)	Fixed, composition, pigtail, 47,000 ohms ±10%, 1/2 watt, insulated	-63360		21	BT-1/2	K-850981-82	1	1	1	1					2	2	3	3	R-108,208 (Qty/Eq.2)
R-109	1st R-F Grid Resistor (Part of E-112)	Fixed, composition, pigtail, 100,000 ohms ±10%, 1/2 watt, insulated	-63360		21	BT-1/2	K-850981-86	4	3	4	3					11	9	18	15	R-109,110,111 112,209,210 212,322,336 339 (Qty/Eq.10)
R-110	2nd R-F Grid Filter Resistor (Part of E-114)	Same as R-109	-63360																	
R-111	1st Detector Grid Resistor (Part of E-118)	Same as R-109	-63360																	
R-112	1st Detector Screen Resistor (Part of E-107)	Same as R-109	-63360																	
R-113	1st R-F Screen Resistor (Part of E-114)	Fixed, composition; pigtail, 22,000 ohms ±10%, 1 watt, insulated	-63288		21	BT-1	K-844314-78	1		1						3			5	R-113,114 (Qty/Eq.2)
R-114	2nd R-F Screen Resistor (Part of E-118)	Same as R-113	-63288																	

* For Contract NXss-17001 (RBB-2/RBC-2)
↓ For Contract NXsr-39262 (RBB-2/RBC-2)

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION
FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

PRESELECTOR UNIT (Continued)

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT RBB RBB-1 RBB-2*	EQUIPMENT RBC RBC-1 RBC-2*	EQUIPMENT RBB-2↓	EQUIPMENT RBC-2↓	BASE RBB	BASE RBC	BASE RBB-1 RBB-2*	BASE RBC-1 RBC-2*	TENDER RBB-2↓	TENDER RBC-2↓	STOCK RBB-2↓	STOCK RBC-2↓	ALL SYMBOL DESIGNATIONS INVOLVED
		RESISTORS (Continued)																		
R-115	Oscillator Screen Resistor (Part of E-120)	Fixed, composition, pigtail, 2200 ohms ±10%, 1/2 watt, insulated	-63360		21	BT-1/2	K-850981-66	1		1						3		5		R-115,126 (Qty/Eq.2)
R-116	Oscillator Heater Shunt Potentiometer	Wire wound, 40 ohms ±10%, 2 watts, linear curve, screwdriver shaft 5/8" long x 0.250" dia.	-631093	RE 13A 492	40		P-720471-14	1	1	1	1					3	3	5	5	R-116,219 (Qty/Eq.2)
R-117	Not Used																			
R-118	Oscillator Heater Shunt Resistor (Part of E-107)	Fixed, wire wound, pigtail, 15 ohms ±10%, 2 watts, insulated	-63705-10		21	BW-2	K-867972-340	1	1	1	1					3	3	5	5	R-118,119,221 222 (Qty/Eq.4)
R-119	Oscillator Heater Shunt Resistor (Part of E-107)	Same as R-118	-63705-10																	
R-120	Oscillator Grid Resistor	Fixed, composition, pigtail, 330 ohms ±10%, 1/2 watt, insulated	-63360		21	BT-1/2	K-850981-56	1		1						2		3		R-120 (Qty/Eq.1)
R-121	1st Detector Cathode Resistor (Part of E-107)	Same as R-105	-63360																	
R-122	1st R-F Screen Resistor (Part of E-114)	Fixed, composition, pigtail, 33,000 ohms ±10%, 1 watt, insulated	-63288		21	BT-1	K-844314-80	1		1						3		5		R-122,123 (Qty/Eq.2)
R-123	2nd R-F Screen Resistor (Part of E-118)	Same as R-122	-63288																	
R-124	1st R-F Cathode Resistor (Part of E-114)	Fixed, wire wound, pigtail, 220 ohms ±10%, 1/2 watt, insulated	-63678-10		21	BW-1/2	K-867970-354	1	1	1	1					3	3	5	5	R-124,125,201 202 (Qty/Eq.4)
R-125	2nd R-F Cathode Resistor (Part of E-118)	Same as R-124	-63678-10																	
R-126	Oscillator Screen Resistor	Same as R-115	-63360																	
R-127	Oscillator Plate Resistor	Fixed, composition, pigtail, 1500 ohms ±10%, 1/2 watt, insulated	-63360		21	BT-1/2	K-850981-64	1		1						2		3		R-127 (Qty/Eq.1)
R-128	Gain Control Bleeder Resistor (Part of E-107)	Fixed, composition, pigtail, 56,000 ohms ±10%, 1/2 watt, insulated	-63360		21	BT-1/2	K-850981-83	1	1	1	1					3	2	5	3	R-128,331 (Qty/Eq.2)

* *For Contract NXss-17001 (RBB-2/RBC-2)*
↓ *For Contract NXsr-39262 (RBB-2/RBC-2)*

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION
FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

PRESELECTOR UNIT (Continued)

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT RBB RBB-1 RBB-2*	EQUIPMENT RBC RBC-1 RBC-2*	EQUIPMENT RBB-2↓	EQUIPMENT RBC-2↓	BASE RBB	BASE RBC	BASE RBB-1 RBB-2*	BASE RBC-1 RBC-2*	TENDER RBB-2↓	TENDER RBC-2↓	STOCK RBB-2↓	STOCK RBC-2↓	ALL SYMBOL DESIGNATIONS INVOLVED
		RESISTORS (Continued)																		
R-129	Oscillator Cathode Resistor	Same as R-102	-63678-10																	
		SWITCHES																		
S-101	Antenna Stage Band Switch	4 position, 3 pole, 12 contacts mounted on a plate 2-3/8" x 2-5/8" x 1/4", 4 mounting holes 0.173" dia.			165		M-420882-1			2	2					3	4	6	7	S-101,102,103 104,105,106 201,202,203 204,205,206 207 (Qty/Eq.13)
S-102	Antenna Stage Band Switch	Same as S-101																		
S-103	1st R-F Stage Band Switch	Same as S-101																		
S-104	2nd R-F Stage Band Switch	Same as S-101																		
S-105	Oscillator Stage Band Switch	Same as S-101																		
S-106	Oscillator Stage Band Switch	Same as S-101																		
		TRANSFORMERS																		
T-101	Antenna Transformer, Band 1	Assembly consists of: two coil forms over which are wound 4 wax impregnated coils, d-c resistance of each winding, 177 turns 4.54 ohms, 57 turns/sect. 3.27 ohms, 6 turns 0.11 ohms, inductance of terminals C-D 593.0 microhenries, A-F 623.0 microhenries, two core and stud assemblies, 2 triangular music wire springs and 2 brass bushings 3/8" long; see Winding data, Figure 5-20 Dwg. No. 439729			1		P-720559-501			1		7		1		2		3		T-101 (Qty/Eq.1)
T-102	Antenna Transformer, Band 2	Similar to T-101 except different coil windings, d-c resistance of each winding, 113 turns 2.40 ohms, 33 turns/sect. 1.66 ohms, 5 turns 0.10 ohms, inductance of terminals C-D 202.5 microhenries, A-F 214.0 microhenries; see Winding data, Figure 5-21 Dwg. No. 439711			1		P-720559-502			1		7		1		2		3		T-102 (Qty/Eq.1)

* For Contract NXss-17001 (RBB-2/RBC-2)
↓ For Contract NXsr-39262 (RBB-2/RBC-2)

PRESELECTOR UNIT (Continued)

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT				BASE				TENDER		STOCK		ALL SYMBOL DESIGNATIONS INVOLVED
								RBB RBB-1 RBB-2 *	RBC RBC-1 RBC-2 *	RBB-2 ↓	RBC-2 ↓	RBB	RBC	RBB-1 RBB-2 *	RBC-1 RBC-2 *	RBB-2 ↓	RBC-2 ↓	RBB-2 ↓	RBC-2 ↓	
		TRANSFORMERS (Continued)																		
T-103	Antenna Transformer, Band 3	Similar to T-101 except different coil windings, d-c resistance of each winding, 65 turns 1.26 ohms, 75 turns 0.99 ohms, 5 turns 0.10 ohms, inductance of terminals C-D 71.9 microhenries, A-F 73.3 microhenries; see Winding data, Figure 5-22 Dwg. No. 439730			1		P-720559-503			1		7		1		2		3		T-103 (Qty/Eq.1)
T-104	Antenna Transformer, Band 4	Similar to T-101 except different coil windings, d-c resistance of each winding, 35 turns 0.62 ohms, 45 turns 0.60 ohms, 40 turns 0.55 ohms, 6 turns 0.11 ohms, inductance of terminals C-D 25.0 microhenries, A-F 25.5 microhenries; see Winding data, Figure 5-23 Dwg. No. 439731			1		P-720559-504			1		7		1		2		3		T-104 (Qty/Eq.1)
T-105	1st R-F Transformer, Band 1	Assembly consists of: one coil form over which are wound 2 wax impregnated coils, d-c resistance of each winding 20 turns 0.32 ohms, 57 turns/sect. 3.03 ohms, inductance of terminals A-F 593.0 microhenries, one core and stud assembly, one triangular music wire spring, one brass bushing, 3/8" long; see Winding data, Figure 5-24 Dwg. No. 439739			1		M-420939-501			1		7		1		4		6		T-105,109 (Qty/Eq.2)
T-106	1st R-F Transformer, Band 2	Similar to T-105 except different coil windings, d-c resistance of each winding 20 turns 0.32 ohms, 33 turns/sect. 1.53 ohms, inductance of terminals A-F 204.0 microhenries; see Winding data, Figure 5-25 Dwg. No. 439710			1		M-420939-502			1		7		1		4		6		T-106,110 (Qty/Eq.2)
T-107	1st R-F Transformer, Band 3	Similar to T-105 except different coil windings, d-c resistance of each winding 20 turns 0.31 ohms, 70 turns 0.91 ohms, inductance of terminals A-F 71.9 microhenries; see Winding data, Figure 5-26 Dwg. No. 439732			1		M-420939-503			1		7		1		4		6		T-107,111 (Qty/Eq.2)
T-108	1st R-F Transformer, Band 4	Similar to T-105 except different coil windings, d-c resistance of each winding 20 turns 0.31 ohms, 40 turns 0.50 ohms, inductance of terminals A-F 26.0 microhenries; see Winding data, Figure 5-27 Dwg. No. 439733			1		M-420939-504			1		7		1		4		6		T-108,112 (Qty/Eq.2)
T-109	2nd R-F Transformer, Band 1	Same as T-105																		
T-110	2nd R-F Transformer, Band 2	Same as T-106																		

* *For Contract NXss-17001 (RBB-2/RBC-2)*
↓ *For Contract NXsr-39262 (RBB-2/RBC-2)*

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION
FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

PRESELECTOR UNIT (Continued)

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT RBB RBB-1 RBB-2*	EQUIPMENT RBC RBC-1 RBC-2*	EQUIPMENT RBB-2↓	EQUIPMENT RBC-2↓	BASE RBB	BASE RBC	BASE RBB-1 RBB-2*	BASE RBC-1 RBC-2*	TENDER RBB-2↓	TENDER RBC-2↓	STOCK RBB-2↓	STOCK RBC-2↓	ALL SYMBOL DESIGNATIONS INVOLVED
						TRANSFORMERS (Continued)														
T-111	2nd R-F Transformer, Band 3	Same as T-107																		
T-112	2nd R-F Transformer, Band 4	Same as T-108																		
T-113	Oscillator Transformer, Band 1	Assembly consists of: one coil form over which are wound 2 coils, d-c resistance of total winding 2.20 ohms, start to tap one 0.19 ohms, start to tap two 1.25 ohms, inductance of terminals C-F 267.0 microhenries, one core and stud assembly, one triangular music wire spring, one brass bushing 3/8" long, includes C-108; see Winding data, Figure 5-28 Dwg. No. 439709			1		δM-420951-501			1		7		1		2		3		T-113 (Qty/Eq.1)
T-114	Oscillator Transformer, Band 2	Similar to T-113 except different coil windings, d-c resistance of total winding 1.42 ohms, start to tap one 0.12 ohm, start to tap two 0.82 ohm inductance of terminals C-F 119.0 microhenries, includes C-109; see Winding data, Figure 5-29 Dwg. No. 439707			1		δM-420951-502			1		7		1		2		3		T-114 (Qty/Eq.1)
T-115	Oscillator Transformer, Band 3	Similar to T-113 except different coil windings, d-c resistance of total winding 0.93 ohm, start to tap one 0.12 ohm, start to tap two 0.52 ohm, inductance of terminals C-F 52.9 microhenries, includes C-110; see Winding data, Figure 5-30 Dwg. No. 439708			1		ΨM-420951-503			1		7		1		2		3		T-115 (Qty/Eq.1)
T-116	Oscillator Transformer, Band 4	Similar to T-113 except different coil windings, d-c resistance of total winding 0.46 ohm, start to tap one 0.074 ohm, start to tap two 0.24 ohm inductance of terminals C-F 20.6 microhenries, includes C-111; see Winding data, Figure 5-31 Dwg. No. 439728			1		ΨM-420951-504			1		7		1		2		3		T-116 (Qty/Eq.1)
						VACUUM TUBES														
V-101	1st R-F Tube	Triple grid supercontrol amplifier, small wafer octal 8 pin base, heater: 0.3 amp. at 6.3 v a.c. or d.c.	-6SK7		1a	-6SK7		7	7	14	14									V-101,102,202 204,301,302 303,307,308 (Qty/Eq. 9)
V-102	2nd R-F Tube	Same as V-101	-6SK7																	

* For Contract NXss-17001 (RBB-2/RBC-2)
↓ For Contract NXsr-39262 (RBB-2/RBC-2)
δ Use M-420951-505 as a spare part for T-113
δ Use M-420951-506 as a spare part for T-114
Ψ Use M-420951-507 as a spare part for T-115
Ψ Use M-420951-508 as a spare part for T-116

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION
FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

PRESELECTOR UNIT (Continued)

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT				BASE				TENDER		STOCK		ALL SYMBOL DESIGNATIONS INVOLVED
								RBB RBB-1 RBB-2 *	RBC RBC-1 RBC-2 *	RBB-2 ↓	RBC-2 ↓	RBB	RBC	RBB-1 RBB-2 *	RBC-1 RBC-2 *	RBB-2 ↓	RBC-2 ↓	RBB-2 ↓	RBC-2 ↓	
		VACUUM TUBES (Continued)																		
V-103	Oscillator Tube	Television amplifier, pentode, single ended metal type, octal 8 pin base, heater: 0.45 amp., at 6.3 v a.c. or d.c.	-6AB7		1a	-6AB7		4	4	8	8									V-103,104,201 203,304,310 (Qty/Eq.6)
V-104	1st Detector Tube	Same as V-103	-6AB7																	
V-105	Gaseous Voltage Limiter Tube	Voltage regulator, bayonet candelabra, double contact base, operating voltage max. 67 v, min. 48 v, for d.c., operating current between 0.4 and 2 ma.	-991		1a	-991		1	1	2	2									V-105,205 (Qty/Eq.2)
V-106	Oscillator Heater Regulator Tube	Voltage regulator, amperite, 0.6 amp. at 6.3 v nominal load			70	#6-8B	K-844958-3	1	1	3	3									V-106,206 (Qty/Eq.2)
		WIRES AND CONDUCTORS																		
W-101	Transmission Line	Assembly consists of: copper tubing 3/8" O.D. x 1/32" bend at a 15° radius, 11-1/16" x 4-3/16", complete with ceramic insulators, brass terminal at one end and three brass brackets 0.064" thick		RE 13A 317	165		P-720489-501													W-101,201 (Qty/Eq.2)
W-102	Wiring Material (RBB I.F. Preselector Unit)	Assembly consists of: C-107, E-124 to E-128, W-103 to W-110 and miscellaneous items			1		K-874538-501													
W-103	Hook-up Wire for Wiring Material (W-102)	Non-inflammable, 10 strands AWG #30 tinned copper conductor, insulated with spiral wraps of cellulose butyrate tape and a double white gloss braid, black and brown tracer, 24" long, 600 v rating			416		K-874538-4			1						1		1		W-103 (Qty/Eq.1)
W-104	Hook-up Wire for Wiring Material (W-102)	Non-inflammable, 16 strands AWG #30 tinned copper conductor, insulated with spiral wraps of cellulose butyrate tape and a double white gloss braid, brown tracer, 56-1/2" long, 600 v rating			416		K-874538-5			1						1		1		W-104 (Qty/Eq.1)
W-105	Hook-up Wire for Wiring Material (W-102)	Similar to W-103 except yellow tracer, 88" long			416		K-874538-6			1						1		1		W-105 (Qty/Eq.1)
W-106	Hook-up Wire for Wiring Material (W-102)	Similar to W-103 except red tracer, 74" long			416		K-874538-7			1						1		1		W-106 (Qty/Eq.1)
W-107	Hook-up Wire for Wiring Material (W-102)	Similar to W-103 except yellow and black tracer, 42" long			416		K-874538-8			1						1		1		W-107 (Qty/Eq.1)

* *For Contract NXss-17001 (RBB-2/RBC-2)*
↓ *For Contract NXsr-39262 (RBB-2/RBC-2)*

RESTRICTED

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION
FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

PRESELECTOR UNIT (Continued)

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT RBB RBB-1 RBB-2 *	EQUIPMENT RBC RBC-1 RBC-2 *	EQUIPMENT RBB-2 ↓	EQUIPMENT RBC-2 ↓	BASE RBB	BASE RBC	BASE RBB-1 RBB-2 *	BASE RBC-1 RBC-2 *	TENDER RBB-2 ↓	TENDER RBC-2 ↓	STOCK RBB-2 ↓	STOCK RBC-2 ↓	ALL SYMBOL DESIGNATIONS INVOLVED
		WIRES AND CONDUCTORS (Continued)																		
W-108	Hook-up Wire for Wiring Material (W-102)	Similar to W-103 except red and green tracer, 58" long			416		K-874538-9			1						1		1		W-108 (Qty/Eq.1)
W-109	Hook-up Wire for Wiring Material (W-102)	Similar to W-103 except white tracer, 45" long			416		K-874538-10			1						1		1		W-109 (Qty/Eq.1)
W-110	Hook-up Wire for Wiring Material (W-102)	Similar to W-103 except green and black tracer, 17" long			416		K-874538-11			1						1		1		W-110 (Qty/Eq.1)
W-111	Hook-up Wire for Wiring Material (W-102)	Similar to W-103 except red and blue tracer, 66" long			416		K-874538-12			1						1		1		W-111 (Qty/Eq.1)
W-112	Bus Connection Wire for Material (W-102)	AWG #16, tinned soft copper wire, 22" long			416		K-874538-13			1						1		1		W-112 (Qty/Eq.1)
W-113	Waxed Lacing Cord for Wiring Material (W-102)	Linen #6, gray color, 120" long			1		K-874538-31			1						1		1		W-113 (Qty/Eq.1)
W-114	Cable for Wiring Material (W-102)	Assembly consists of: two conductors made from W-103 having green tracers, one wire 14-1/4" long, other wire 26-7/8" long, covered with a tinned copper braid 0.005" dia., closely braided, 29" overall length, one end 1-3/4" leads, other end 3-1/2" leads, two other leads coming off 18-1/2" from one end, leads 5/8" apart and 5-1/2" long, flexible			1		M-427884-501			1						1		1		W-114 (Qty/Eq.1)
W-115	Hook-up Wire for Wiring Material (W-102)	Similar to W-104 except black tracer, 62" long			416		K-874538-20			1						1		1		W-115 (Qty/Eq.1)
W-116	Hook-up Wire for Wiring Material (W-102)	Similar to W-103 except brown tracer, 54" long			416		K-874538-21			1						1		1		W-116 (Qty/Eq.1)
W-117	Hook-up Wire for Wiring Material (W-102)	Similar to W-103 except black tracer, 37" long			416		K-874538-22			1						1		1		W-117 (Qty/Eq.1)
W-118	Bus Connection Wire for Wiring Material (W-102)	AWG #18, tinned soft copper wire, 4" long			416		K-874538-23			1						1		1		W-118 (Qty/Eq.1)
W-119	Extruded Insulating Tubing for Wiring Material (W-324)	Flexible, high insulation resistance, non-inflammable, 0.053" I.D., 1-1/4" long yellow color			1		K-874538-24			1						1		1		W-119 (Qty/Eq.1)

* For Contract NXss-17001 (RBB-2/RBC-2)
↓ For Contract NXsr-39262 (RBB-2/RBC-2)

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION
FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

PRESELECTOR UNIT (Continued)

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT RBB-1 RBB-2 *	EQUIPMENT RBC-1 RBC-2 *	EQUIPMENT RBB-2 ↓	EQUIPMENT RBC-2 ↓	BASE RBB	BASE RBC	BASE RBB-1 RBB-2 *	BASE RBC-1 RBC-2 *	TENDER RBB-2 ↓	TENDER RBC-2 ↓	STOCK RBB-2 ↓	STOCK RBC-2 ↓	ALL SYMBOL DESIGNATIONS INVOLVED
				SOCKETS																
X-101	1st R-F Tube Socket	Steatite, octal, 8 silver plated contacts, stainless steel adapter plate for mounting	-49373	RE 49AA 313A	6		M-421395-501	2	2	2	2					2	2	3	3	X-101,102,103 201,202,203 (Qty/Eq.6)
X-101A	Socket for Dial Lamp (I-101A)	Miniature bayonet base, spring clamp mounting, insulated contacts			208	Cat. #704	K-866682-1			1	1					1	1	2	2	X-101A, 102A, 201A, 202A (Qty/Eq.4)
X-102	2nd R-F Tube Socket	Same as X-101	-49373																	
X-102A	Socket for Dial Lamp (I-102A)	Same as X-101A																		
X-103	Oscillator Tube Socket	Same as X-101	-49373																	
X-104	1st Detector Tube Socket	Similar to X-101 except for position of key	-49373	RE 49AA 313A	6		M-421395-502			1	1					1	1	2	2	X-104,204,304 (Qty/Eq.3)
X-105	Gaseous Voltage Limiter Tube Socket	Bayonet type, brass shell and base, length of extensions 7/16" x 3/32" dia., complete with insulation material (E-133) and minus #6 screws			160	Cat. #2194	K-837884-3	1	1	1	1					1	1	1	1	X-105,205 (Qty/Eq.2)
X-106	Oscillator Heater Regular Tube Socket	Similar to X-101 except socket has four contacts	-49368	RE 49AA 313A	6		M-421395-504	1	1	1	1					1	1	1	1	X-106,206 (Qty/Eq.2)
				MISCELLANEOUS																
	Solder	120" long			1		K-874538-32			1						1		1		
	Tape	Black vartex, resinous, 0.010" thick, 3/4" wide, 12" long			1		K-99602-22													
	Cement	Vinylite #4			1		K-90485-3													

* For Contract NXss-17001 (RBB-2/RBC-2)
↓ For Contract NXsr-39262 (RBB-2/RBC-2)

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION
FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT RBB RBB-1 RBB-2*	EQUIPMENT RBC RBC-1 RBC-2*	EQUIPMENT RBB-2↓	EQUIPMENT RBC-2↓	BASE RBB	BASE RBC	BASE RBB-1 RBB-2*	BASE RBC-1 RBC-2*	TENDER RBB-2↓	TENDER RBC-2↓	STOCK RBB-2↓	STOCK RBC-2↓	ALL SYMBOL DESIGNATIONS INVOLVED
		STRUCTURAL PARTS																		
A-201	Antenna Box	Assembly consists of: aluminum box and cover, C-202,214,237,238,239,240,241,242,243,244,260, E-211, T-201,202,203,204, S-201,202,207			1		T-620198-501										1		1	A-201 (Qty/Eq.1)
A-202	1st R-F Box	Assembly consists of: aluminum box and cover, C-201,210,211,224,245,246,247,248,261, E-212, 213,213A,214,234,235, R-204,216, S-203, T-205, 206,207,208, X-201			1		T-620326-501										1		1	A-202 (Qty/Eq.1)
A-203	2nd R-F Box	Assembly consists of: aluminum box and cover, C-203,204,249,250,251,252, E-215,216,217, 217A, 218,218A,234,235, R-217, S-204, T-209,210,211, 212, X-202			1		T-620193-502										1		1	A-203 (Qty/Eq.1)
A-204	Oscillator Box	Assembly consists of: aluminum box and cover, C-206,207,208,209,213,216,231,232,233,253,254, 255,256,259, E-219,220,221,222,223,223A,224, 225,226,234,235, L-201, R-208, S-205,206, T-213,214,215,216, X-203			1		T-620194-502										1		1	A-204 (Qty/Eq.1)

* For Contract NXss-17001 (RBB-2/RBC-2)
↓ For Contract NXsr-39262 (RBB-2/RBC-2)

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION
FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

PRESELECTOR UNIT (Continued)

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT RBB RBB-1 RBB-2*	EQUIPMENT RBC RBC-1 RBC-2*	EQUIPMENT RBB-2↓	EQUIPMENT RBC-2↓	BASE RBB	BASE RBC	BASE RBB-1 RBB-2*	BASE RBC-1 RBC-2*	TENDER RBB-2↓	TENDER RBC-2↓	STOCK RBB-2↓	STOCK RBC-2↓	ALL SYMBOL DESIGNATIONS INVOLVED
				STRUCTURAL PARTS (Continued)																
A-205	Lord Mounting for Receiver Cabinet	Same as A-105																		
A-206	Lord Mounting for Receiver Cabinet	Same as A-106																		
				CAPACITORS																
C-201	1st R-F Coupling Capacitor	Fixed, molded, mica, 5 mmfd ±10%, 500 v d.c. working, temp. coeff. ±0.02%/°C, low loss case.	-48771-C10	RE 48A 154	2,13 16 29 34	1469, 5RS M1K5 PO MOSW	P-720473-1		2		1						2		3	C-201,203,205 (Qty/Eq. 3)
C-202	Antenna Link Circuit Padding Capacitor	Fixed, molded, mica, 15 mmfd ±10%, 500 v d.c. working, temp. coeff. ±0.01%/°C, low loss case	-48840-D10	RE 48A 154	2	1469	P-720592-20		1		1						2		2	C-202,214 (Qty/Eq. 2)
C-203	2nd R-F Coupling Capacitor	Same as C-201	-48771-C10																	
C-204	2nd R-F Circuit Padding Capacitor	Fixed, molded, mica, 10 mmfd ±10%, 500 v d.c. working, temp. coeff. ±0.02%/°C, low loss case	-48710-C10	RE 48A 154	2,13 16 29 34	1469, 5RS M1K10 PO MOSW	P-720473-2		2		1						2		3	C-204,260,261 (Qty/Eq. 3)
C-205	1st Detector Circuit Padding Capacitor	Same as C-201	-48771-C10																	
C-206	Oscillator Temperature Compensator Capacitor, Band 1	Fixed, ceramic, 16 mmfd ±5%, 500 v d.c. working, temp. coeff. ±15%/°C			16	Ceramicon N330-16 ±15%	K-874805-1		1		1						1		1	C-206 (Qty/Eq. 1)
C-207	Oscillator Temperature Compensator Capacitor, Band 2	Fixed, ceramic, 20 mmfd ±5%, 500 v d.c. working, temp. coeff. ±15%/°C			16	Ceramicon N470-20 ±15%	K-874805-2		1		1						1		1	C-207 (Qty/Eq. 1)
C-208	Oscillator Temperature Compensator Capacitor, Band 3	Fixed, ceramic, 24 mmfd ±5%, 500 v d.c. working, temp. coeff. ±15%/°C			16	Ceramicon N560-24 ±15%	K-874805-11		1		1						1		1	C-208 (Qty/Eq. 1)
C-209	Oscillator Temperature Compensator Capacitor, Band 4	Fixed, ceramic, 12 mmfd ±5%, 500 v d.c. working, temp. coeff. ±15%/°C			16	Ceramicon N750-12 ±15%	K-874805-4		1		1						1		1	C-209 (Qty/Eq. 1)
C-210	1st R-F Coupling Capacitor	Fixed, molded, mica, 50 mmfd ±10%, 500 v d.c. working, temp. coeff. ±0.01%/°C, low loss case	-48895-D10	RE 48A 154	2,13 16 29 34	1469, 5RS M1K50 PO MOSDW	P-720473-4		3		1						3		5	C-210,211,212 213,224 (Qty/Eq. 5)

* For Contract NXss-17001 (RBB-2/RBC-2)
↓ For Contract NXsr-39262 (RBB-2/RBC-2)

RESTRICTED

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION
FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

PRESELECTOR UNIT (Continued)

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT RBB RBB-1 RBB-2*	EQUIPMENT RBC RBC-1 RBC-2*	EQUIPMENT RBB-2↓	EQUIPMENT RBC-2↓	BASE RBB	BASE RBC	BASE RBB-1 RBB-2*	BASE RBC-1 RBC-2*	TENDER RBB-2↓	TENDER RBC-2↓	STOCK RBB-2↓	STOCK RBC-2↓	ALL SYMBOL DESIGNATIONS INVOLVED
				CAPACITORS (Continued)																
C-211	2nd R-F Voltage Divider Circuit Capacitor	Same as C-210	-48895-D10																	
C-212	1st Detector Voltage Divider Circuit Capacitor	Same as C-210	-48895-D10																	
C-213	Oscillator Grid Capacitor	Same as C-210	-48895-D10																	
C-214	1st R-F Grid Circuit Padding Capacitor	Same as C-202	-48840-D10																	
C-215	Not Used																			
C-216	Oscillator Neutralizing Capacitor	Fixed, ceramic, 2 mmfd ±10%, 500 v d.c. working temp. coeff. $\pm 60 \times 10^{-6}$ mmfd/mmfd/°C			16	Ceramicon NPOK-2±60	K-874805-5		1		1						1		1	C-216 (Qty/Eq. 1)
C-217	Antenna Decoupling Capacitor (Part of E-209)	Fixed, molded, mica, 100 mmfd ±10%, 500 v d.c. working, low loss case	-48674-B10	RE 48A 154	2,13 16 29 34	1468LS, 5WS M2K100 CXM MOBW	P-720473-6	2	2	1	1					2	3	3	4	C-217,303,306 309 (Qty/Eq. 4)
C-218	Oscillator Series Tracking Capacitor, Band 1 (Part of T-213)	Fixed, molded, mica, 2000 mmfd ±5%, 500 v d.c. working, temp. coeff. 0 to +0.01%/°C, low loss case	-481811	RE 48A 154	2	1464	P-721747-1		1		1						2		2	C-218,221 (Qty/Eq. 2)
C-219	Oscillator Series Tracking Capacitor, Band 2 (Part of T-214)	Fixed, molded, mica, 2700 mmfd ±5%, 500 v d.c. working, temp. coeff. 0 to +0.01%/°C, low loss case	-481812	RE 48A 154	2	1464	P-721747-2		1		1						1		1	C-219 (Qty/Eq. 1)
C-220	Oscillator Series Tracking Capacitor, Band 3 (Part of T-215)	Fixed, molded, mica, 3000 mmfd ±5%, 500 v d.c. working, temp. coeff. 0 to +0.01%/°C, low loss case	-481813	RE 48A 154	2	1464	P-721747-3		1		1						1		1	C-220 (Qty/Eq. 1)
C-221	Oscillator Series Tracking Capacitor, Band 4 (Part of T-216)	Same as C-218	-481811																	
C-222	1st R-F Grid Filter Capacitor (Part of E-213)	Same as C-112	-481425-B10																	
C-223	2nd R-F Grid Filter Capacitor (Part of E-218)	Same as C-112	-481425-B10																	
C-224	1st R-F Transformer Primary By-pass Capacitor	Same as C-210	-48895-D10																	

* *For Contract NXss-17001 (RBB-2/RBC-2)*
↓ *For Contract NXsr-39262 (RBB-2/RBC-2)*

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION
FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

PRESELECTOR UNIT (Continued)

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT				BASE				TENDER		STOCK		ALL SYMBOL DESIGNATIONS INVOLVED
								RBB RBB-1 RBB-2 *	RBC RBC-1 RBC-2 *	RBB-2 ↓	RBC-2 ↓	RBB	RBC	RBB-1 RBB-2 *	RBC-1 RBC-2 *	RBB-2 ↓	RBC-2 ↓	RBB-2 ↓	RBC-2 ↓	
		CAPACITORS (Continued)																		
C-225	1st R-F Cathode By-pass Capacitor (Part of E-213)	Same as C-115	-48938-B10																	
C-226	1st R-F Screen By-pass Capacitor (Part of E-213)	Same as C-115	-48938-B10																	
C-227	1st R-F Plate By-pass Capacitor (Part of E-213)	Same as C-115	-48938-B10																	
C-228	2nd R-F Cathode By-pass Capacitor (Part of E-218)	Same as C-115	-48938-B10																	
C-229	2nd R-F Screen By-pass Capacitor (Part of F-218)	Same as C-115	-48938-B10																	
C-230	2nd R-F Plate By-pass Capacitor (Part of E-218)	Same as C-115	-48938-B10																	
C-231	Oscillator Heater By-pass Capacitor	Same as C-115	-48938-B10																	
C-232	Oscillator Screen By-pass Capacitor	Same as C-115	-48938-B10																	
C-233	Oscillator Screen Filter Capacitor	Same as C-123	-48848-B10																	
C-234	1st Detector Cathode By-pass Capacitor	Same as C-115	-48938-B10																	
C-235	1st Detector Screen By-pass Capacitor	Same as C-115	-48938-B10																	
C-236	Antenna Compensator Capacitor	Same as C-128	-481377																	
C-237	Antenna Link Trimmer, Capacitor, Band 1	Same as C-129	-481378																	
C-238	Antenna Link Trimmer Capacitor, Band 2	Same as C-129	-481378																	

* For Contract NXss-17001 (RBB-2/RBC-2)
↓ For Contract NXsr-39262 (RBB-2/RBC-2)

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION
FOR MODEL RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

PRESELECTOR UNIT (Continued)

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT				BASE				TENDER		STOCK		ALL SYMBOL DESIGNATIONS INVOLVED
								RBB RBB-1 RBB-2 *	RBC RBC-1 RBC-2 *	RBB-2 ↓	RBC-2 ↓	RBB	RBC	RBB-1 RBB-2 *	RBC-1 RBC-2 *	RBB-2 ↓	RBC-2 ↓	RBB-2 ↓	RBC-2 ↓	
			CAPACITORS (Continued)																	
C-239	Antenna Link Trimmer Capacitor, Band 3	Same as C-129	-481378																	
C-240	Antenna Link Trimmer Capacitor, Band 4	Same as C-129	-481378																	
C-241	1st R-F Grid Trimmer Capacitor, Band 1	Same as C-129	-481378																	
C-242	1st R-F Grid Trimmer Capacitor, Band 2	Same as C-129	-481378																	
C-243	1st R-F Grid Trimmer Capacitor, Band 3	Same as C-129	-481378																	
C-244	1st R-F Grid Trimmer Capacitor, Band 4	Same as C-129	-481378																	
C-245	2nd R-F Grid Trimmer Capacitor, Band 1	Same as C-129	-481378																	
C-246	2nd R-F Grid Trimmer Capacitor, Band 2	Same as C-129	-481378																	
C-247	2nd R-F Grid Trimmer Capacitor, Band 3	Same as C-129	-481378																	
C-248	2nd R-F Grid Trimmer Capacitor, Band 4	Same as C-129	-481378																	
C-249	1st Detector Grid Trimmer Capacitor, Band 1	Same as C-129	-481378																	
C-250	1st Detector Grid Trimmer Capacitor, Band 2	Same as C-129	-481378																	
C-251	1st Detector Grid Trimmer Capacitor, Band 3	Same as C-129	-481378																	
C-252	1st Detector Grid Trimmer Capacitor, Band 4	Same as C-129	-481378																	
C-253	Oscillator Parallel Trimmer Capacitor, Band 1	Same as C-129	-481378																	
C-254	Oscillator Parallel Trimmer Capacitor, Band 2	Same as C-129	-481378																	

* For Contract NXss-17001 (RBB-2/RBC-2)
↓ For Contract NXsr-39262 (RBB-2/RBC-2)

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION
FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

PRESELECTOR UNIT (Continued)

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT RBB RBB-1 RBB-2*	EQUIPMENT RBC RBC-1 RBC-2*	EQUIPMENT RBB-2↓	EQUIPMENT RBC-2↓	BASE RBB	BASE RBC	BASE RBB-1 RBB-2*	BASE RBC-1 RBC-2*	TENDER RBB-2↓	TENDER RBC-2↓	STOCK RBB-2↓	STOCK RBC-2↓	ALL SYMBOL DESIGNATIONS INVOLVED
				CAPACITORS (Continued)																
C-255	Oscillator Parallel Trimmer Capacitor, Band 3	Same as C-129	-481378																	
C-256	Oscillator Parallel Trimmer Capacitor, Band 4	Same as C-129	-481378																	
C-257	Main Tuning Capacitor	Same as C-149 except temp. coeff. limits -10% to +50%/°C.			33		P-720545-1										1		1	C-257 (Qty/Eq. 1)
C-258	Oscillator Plate By-pass Capacitor (Part of E-217)	Fixed, molded, mica, 10,000 mmfd ±10%, 300 v d.c. working, low loss case	-48938-B10	RE 48A 154	2	1441W	P-720592-6		δ1		1						1		1	C-258 (Qty/Eq. 1)
C-259	Oscillator Heater By-pass Capacitor	Fixed, molded, mica, 5000 mmfd ±10%, 300 v d.c. working, low loss case	-481037-B10	RE 48A 154	2,29 34	1467LS,WXM MWBW	P-720473-40	1	1	1	1					1	2	1	1	C-259,340 (Qty/Eq. 2)
C-260	Link Padding Capacitor, Band 4	Same as C-204	-48710-C10																	
C-261	1st R-F Padding Capacitor Band 4	Same as C-204	-48710-C10																	
				MISCELLANEOUS ELECTRICAL PARTS																
E-201	Tuning Knob On Front Panel	Same as E-101																		
E-202	Band Change Knob On Front Panel	Same as E-102																		
E-203	Round Pull Knobs Used for Removal of Chassis Provided On Front Panel	Same as E-103																		
E-204	"ANT. COMP." Knob On Front Panel	Same as E-104																		
E-205	Stand-off Insulator for Transmission Line	Same as E-106	-61172																	
E-206	Not Used																			
E-207	Not Used																			

* For Contract NXss-17001 (RBB-2/RBC-2)   δ Given as a spare in the *RBC-2 only.
↓ For Contract NXsr-39262 (RBB-2/RBC-2)

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION
FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

PRESELECTOR UNIT (Continued)

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT				BASE				TENDER		STOCK		ALL SYMBOL DESIGNATIONS INVOLVED
								RBB RBB-1 RBB-2 *	RBC RBC-1 RBC-2 *	RBB-2 ↓	RBC-2 ↓	RBB	RBC	RBB-1 RBB-2 *	RBC-1 RBC-2 *	RBB-2 ↓	RBC-2 ↓	RBB-2 ↓	RBC-2 ↓	
MISCELLANEOUS ELECTRICAL PARTS (Continued)																				
E-208	Terminal Board (TB-5) Located Against Front Panel of Preselector Unit	Assembly consists of, terminal board E-208A, with with R-211,212,221,222 and assembling hardware			1		P-721107-508													E-208 (Qty/Eq. 1)
E-208A	Terminal Board for E-208	Same as E-107A																		
E-209	Terminal Board (TB-6) for Ant. Link at Left Side of Preselector Unit	Assembly consists of terminal board E-209A with C-217, three brass links and assembling hardware			1		K-856464-502													E-209 (Qty/Eq. 1)
E-209A	Terminal Board for E-209	Same as E-105A																		
E-210	Not Used																			
E-211	Bushing Insulators for Terminal Screws in Antenna Box (A-201)	Same as E-111	-61260																	
E-212	Terminal Board (TB-2) for 1st R-F Box (A-202) Connections Located at Left Side of Preselector Unit	Same as E-113																		
E-213	Terminal Board (TB-1) for 1st R-F Box (A-202) Located Near C-245	Assembly consists of terminal board E-213A with C-222,225,226,227, R-201,205,209,213 and assembling hardware			1		P-721107-501													E-213 (Qty /Eq. 1)
E-213A	Terminal Board for E-213	Same as E-114A																		
E-214	Bushing Insulators for Terminal Screws in 1st R-F Box (A-202)	Same as E-111	-61260																	
E-215	Bushing Insulators for Terminal Screws in 2nd R-F Box (A-203)	Same as E-111	-61260																	
E-216	Terminal Board (TB-2) for 2nd R-F Box (A-203) Connections Located at Left Side of Preselector Unit	Laminated phenolic, 4-5/8" x 1-1/8" x 3/32", 6 brass terminals and assembling hardware		17-P-5 Type FBE	1		K-864543-501													E-216 (Qty /Eq.1)
E-217	Terminal Board (TB-3) for 2nd R-F Box (A-203) Located Near S-204	Assembly consists of terminal board E-217A with C-258, R-207, and assembling hardware			1		P-721107-510													E-217 (Qty/Eq. 1)

* For Contract NXss-17001 (RBB-2/RBC-2)
↓ For Contract NXsr-39262 (RBB-2/RBC-2)

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION
FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

PRESELECTOR UNIT (Continued)

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT RBB RBB-1 RBB-2*	EQUIPMENT RBC RBC-1 RBC-2*	EQUIPMENT RBB-2↓	EQUIPMENT RBC-2↓	BASE RBB	BASE RBC	BASE RBB-1 RBB-2*	BASE RBC-1 RBC-2*	TENDER RBB-2↓	TENDER RBC-2↓	STOCK RBB-2↓	STOCK RBC-2↓	ALL SYMBOL DESIGNATIONS INVOLVED
		MISCELLANEOUS ELECTRICAL PARTS (Continued)																		
E-217A	Terminal Board for E-217	Laminated phenolic, 2-1/2" x 1" x 3/32", 2 brass terminals, one soldering terminal and assembling hardware		17-P-5 Type FBE	1		K-864308-501													E-217A (Qty/Eq. 1)
E-218	Terminal Board (TB-1) for 2nd R-F Box (A-203) Located Near T-209	Assembly consists of terminal board E-218A with C-223,228,229,230, R-202,206,210,214 and assembling hardware			1		P-721107-506													E-218 (Qty/Eq. 1)
E-218A	Terminal Board for E-218	Same as E-114A																		
E-219	Terminal Board (TB-6) for Oscillator Box (A-204) Connections Located at Left Side of Pre-selector Unit	Same as E-119																		
E-220	Bushing Insulator for Terminal Screw in Oscillator Box (A-204)	Same as E-111	-61260																	
E-221	Stand-off Insulator Between X-203 and Chassis in Oscillator Box (A-204)	Steatite ceramic, cylindrical posts, both ends 1/2" O.D., both ends threaded #6-32 threads for 7/32" max., 1/2" long			22	Cat. #397-L-1/2	K-802900-20													E-221 (Qty/Eq. 1)
E-222	Terminal Board (TB-2) for Oscillator Box (A-204) Located Near X-203	Same as E-122																		
E-223	Terminal Board (TB-1) for Oscillator Box (A-204) Located Near T-213	Assembly consists of terminal board E-223A with R-215 and assembling hardware			1		P-721107-509													E-223 (Qty/Eq. 1)
E-223A	Terminal Board for E-223	Laminated phenolic, insulating material, 2-1/2" x 3/8" x 3/32", 2 brass terminals 0.128" dia. and counterbore 1/4" dia. x 1/32" deep, 2 mounting holes 0.173" dia.		17-P-5 Type FBE	1		K-866599-1													E-223A (Qty/Eq. 1)
E-224	Insulator for Oscillator Box (A-204) Located Near X-203	Polystyrene, bakelite, (XMS10023), 1/2" shoulder O.D., 0.377" shank O.D., 1/8" I.D., 3/8" long			1		K-865431-1			1	1					1	1	2	2	E-224,318 (Qty/Eq. 2)
E-225	Insulator for Oscillator Box (A-204) Located Near T-213	Polystyrene, bakelite, (XMS10023), 5/8" O.D., 3/4" long, one end tapped #6-32 threads for 3/8", 2 slots 1/16" wide x 3/32" deep, one slot 3/32" wide x 3/32" deep placed 3/16" apart			1		K-865431-2													E-225 (Qty/Eq. 1)

* For Contract NXss-17001 (RBB-2/RBC-2)
↓ For Contract NXsr-39262 (RBB-2/RBC-2)

PRESELECTOR UNIT (Continued)

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION
FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT RBB RBB-1 RBB-2*	EQUIPMENT RBC RBC-1 RBC-2*	EQUIPMENT RBB-2↓	EQUIPMENT RBC-2↓	BASE RBB	BASE RBC	BASE RBB-1 RBB-2*	BASE RBC-1 RBC-2*	TENDER RBB-2↓	TENDER RBC-2↓	STOCK RBB-2↓	STOCK RBC-2↓	ALL SYMBOL DESIGNATIONS INVOLVED
		MISCELLANEOUS ELECTRICAL PARTS (Continued)																		
E-226	Insulator for Oscillator Box (A-204) Located Near X-203	Polystyrene, bakelite, (XMS10023), 1/2" O.D., 0.378" I.D., 1/4" long			1		K-865431-3													E-226 (Qty/Eq. 1)
E-227	Not Used																			
E-228	Spade Terminal for Wiring Material (W-202)	Same as E-125																		
E-229	Insulator Material	Same as E-131																		
E-230	Insulator Material	Same as E-132																		
E-231	Insulator Material	Same as E-133																		
E-232	Insulator Material	Same as E-134																		
E-233	Terminal Lug for Wiring Material (W-202)	Same as E-124																		
E-234	Contact for Octal Sockets (X-201,202,203,204, 206)	Same as E-136																		
E-235	Spring and Bracket for A-202,203,204	Same as E-129																		
		HARDWARE																		
H-201	Allen Wrench	Same as H-101																		
H-202	Allen Wrench	Same as H-102																		
H-203	Setscrews for Tuning Knob (E-201) and Band Change Knob (E-202)	Same as H-103																		
H-204	Screw for Tuning Condenser (C-257)	Same as H-104																		
		INDICATING DEVICES																		
I-201A	Dial Lamp	Same as I-101A																		
I-202A	Dial Lamp	Same as I-101A																		

* For Contract NXss-17001 (RBB-2/RBC-2)
↓ For Contract NXsr-39262 (RBB-2/RBC-2)

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION
FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

PRESELECTOR UNIT (Continued)

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT				BASE				TENDER		STOCK		ALL SYMBOL DESIGNATIONS INVOLVED
								RBB RBB-1 RBB-2 *	RBC RBC-1 RBC-2 *	RBB-2 ↓	RBC-2 ↓	RBB	RBC	RBB-1 RBB-2 *	RBC-1 RBC-2 *	RBB-2 ↓	RBC-2 ↓	RBB-2 ↓	RBC-2 ↓	
JACKS																				
J-201A	Antenna Input Jack	Same as J-101A	-49120																	
J-201B	Antenna Jack Casting	Same as J-101B																		
INDUCTANCES																				
L-201	Oscillator Heater Choke	Assembly consisting of: one coil form over which are wound 3 wax impregnated coils, d.c. resistance, part 3 0.12 ohm, part 4 0.21 ohm, part 5 0.13 ohm, inductance of terminals C-D 3.33 microhenries, frequency 4.0 to 27.0 mc, core and stud assembly, one rectangular music wire spring, and one brass bushing 3/8" long; see Winding Data, Fig. 5-10, Dwg. No. 439736			1		K-865480-501				1		7		1		1		5	L-201 (Qty/Eq. 1)
DIALS & CHARTS																				
N-201	Dial and Mask	Assembly includes N-202, O-210,211			1		W-303058-502										1		1	N-201 (Qty/Eq. 1)
N-202	Dial Glass for N-201	Same as N-102																		
MISCELLANEOUS MECHANICAL PARTS																				
O-201	Receiver Chassis Safety Spring	Same as O-102																		
O-202	Grounding Spring for Antenna Jack (J-201A)	Same as O-103																		
O-203	Contact Spring (Located Near V-202)	Phosphor bronze, 4-27/32" long, 29/32" wide, 0.005" thick, three holes 0.154" dia., 18 notches equally spaced			1		K-865606-1				2						4		10	O-203 (Qty/Eq. 2)
O-204	Not Used																			
O-205	Contact Spring for Strip Near C-257	Same as O-104																		
O-206	Spring for Allen Wrench Wrenches	Same as O-105																		
O-207	Not Used																			
O-208	Not Used																			
O-209	Not Used																			

* For Contract NXss-17001 (RBB-2/RBC-2)
↓ For Contract NXsr-39262 (RBB-2/RBC-2)

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION
FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

PRESELECTOR UNIT (Continued)

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT				BASE				TENDER		STOCK		ALL SYMBOL DESIGNATIONS INVOLVED
								RBB RBB-1 RBB-2 *	RBC RBC-1 RBC-2 *	RBB-2 ↓	RBC-2 ↓	RBB	RBC	RBB-1 RBB-2 *	RBC-1 RBC-2 *	RBB-2 ↓	RBC-2 ↓	RBB-2 ↓	RBC-2 ↓	
		MISCELLANEOUS MECHANICAL PARTS (Continued)																		
O-210	Spring for Dial and Mask (N-201)	Same as O-109																		
O-211	Spring for Dial and Mask (N-201)	Same as O-110																		
O-212	Miter Gear	Same as O-111																		
O-213	Coupling for Tuning Condenser (C-257)	Same as O-101																		
		PLUGS																		
P-201	Antenna Input Plug for Jack (J-201A)	Same as P-101	-49121																	
P-202	Antenna Input Adapter for Use With Jack (J-201A)	Same as P-102	-49152																	
		RESISTORS																		
R-201	1st R-F Cathode Resistor (Part of E-213)	Same as R-124	-63678-10																	
R-202	2nd R-F Cathode Resistor (Part of E-218)	Same as R-124	-63678-10																	
R-203	1st Detector Cathode Resistor	Same as R-105	-63360																	
R-204	R-F Plate Shunt Resistor	Fixed, composition, pigtail, 5600 ohms ±10%, 1/2 watt, insulated	-63360		21	BT-1/2	K-850981-71		1		1						2		3	R-204 (Qty/Eq. 1)
R-205	1st R-F Plate Filter Resistor (Part of E-213)	Same as R-105	-63360																	
R-206	2nd R-F Plate Filter Resistor (Part of E-218)	Same as R-105	-63360																	
R-207	Oscillator Plate Filter Resistor (Part of E-217)	Same as R-105	-63360																	

* For Contract NXss-17001 (RBB-2/RBC-2)
↓ For Contract NXsr-39262 (RBB-2/RBC-2)

PRESELECTOR UNIT (Continued)

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION
FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT				BASE				TENDER		STOCK		ALL SYMBOL DESIGNATIONS INVOLVED
								RBB RBB-1 RBB-2 *	RBC RBC-1 RBC-2 *	RBB-2 ↓	RBC-2 ↓	RBB	RBC	RBB-1 RBB-2 *	RBC-1 RBC-2 *	RBB-2 ↓	RBC-2 ↓	RBB-2 ↓	RBC-2 ↓	
		RESISTORS (Continued)																		
R-208	Oscillator Grid Leak Resistor	Same as R-108	-63360																	
R-209	1st R-F Grid Filter Resistor (Part of E-213)	Same as R-109	-63360																	
R-210	2nd R-F Grid Filter Resistor (Part of E-218)	Same as R-109	-63360																	
R-211	R-F Sensitivity Control Bleeder Resistor (Part of E-208)	Fixed, composition, pigtail, 33,000 ohms ±10%, 1/2 watt, insulated	-63360		21	BT-1/2	K-850981-80		1		1						2		3	R-211 (Qty/Eq. 1)
R-212	1st Detector Screen Resistor (Part of E-208)	Same as R-109	-63360																	
R-213	1st R-F Screen Resistor (Part of E-213)	Fixed, composition, pigtail, 120,000 ohms ±10%, 1/2 watt, insulated	-63360		21	BT-1/2	K-850981-87		1		1						3		5	R-213,214 (Qty/Eq. 2)
R-214	2nd R-F Screen Resistor (Part of E-218)	Same as R-213	-63360																	
R-215	Oscillator Screen Resistor (Part of E-223)	Fixed, composition, pigtail, 10,000 ohms ±10%, 1/2 watt, insulated	-63360		21	BT-1/2	K-850981-74	2	3	2	3					6	8	10	13	R-215,323,324 326,374 (Qty/Eq. 5)
R-216	1st R-F Grid Leak Resistor	Fixed, composition, pigtail, 1.0 megohm ±10%, 1/2 watt, insulated	-63360		21	BT-1/2	K-850981-98	3	5	3	5					9	14	15	23	R-216,217,218 317,340,341 345,359,371 (Qty/Eq. 9)
R-217	2nd R-F Grid Leak Resistor	Same as R-216	-63360																	
R-218	1st Detector Grid Leak Resistor	Same as R-216	-63360																	
R-219	Oscillator Heater Shunt Potentiometer	Same as R-116	-631093																	
R-220	Not Used																			
R-221	Oscillator Heater Shunt Resistor (Part of E-208)	Same as R-118	-63705-10																	
R-222	Oscillator Heater Shunt Resistor (Part of E-208	Same as R-118	-63705-10																	

* *For Contract NXss-17001 (RBB-2/RBC-2)*
↓ *For Contract NXsr-39262 (RBB-2/RBC-2)*

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION
FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

PRESELECTOR UNIT (Continued)

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT				BASE				TENDER		STOCK		ALL SYMBOL DESIGNATIONS INVOLVED
								RBB RBB-1 RBB-2 *	RBC RBC-1 RBC-2 *	RBB-2 ↓	RBC-2 ↓	RBB	RBC	RBB-1 RBB-2 *	RBC-1 RBC-2 *	RBB-2 ↓	RBC-2 ↓	RBB-2 ↓	RBC-2 ↓	
								SWITCHES												
S-201	Antenna Coupling Band Switch	Same as S-101																		
S-202	Antenna Circuit Band Switch	Same as S-101																		
S-203	1st R-F Circuit Band Switch	Same as S-101																		
S-204	2nd R-F Circuit Band Switch	Same as S-101																		
S-205	Oscillator Circuit Band Switch	Same as S-101																		
S-206	Oscillator Circuit Band Switch	Same as S-101																		
S-207	Link Circuit Band Switch	Same as S-101																		
								TRANSFORMERS												
T-201	Antenna Transformer, Band 1	Assembly consisting of: two coil forms over which are wound 4 wax impregnated coils, d.c. resistance of each winding 27 turns 0.13 ohm, 26 turns 0.13 ohm, 7 turns 0.14 ohm, 3 turns 0.078 ohm, inductance of terminals C-D 7.88 microhenries, A-F 7.96 microhenries, two core and stud assemblies, 2 triangular music wire springs, 2 brass bushings 3/8" long; see Winding data, Figure 5-32, Dwg. No. 439704			1		P-720560-501				1		7		1		2		3	T-201 (Qty/Eq. 1)
T-202	Antenna Transformer, Band 2	Similar to T-201, except different coil windings, d.c. resistance of each winding, 16 turns 0.071 ohm, 4 turns 0.086 ohm, 2 turns 0.061 ohm, inductance of terminals C-D 1.118 microhenries, A-F 1.15 microhenries; see Winding data, Figure 5-33, Dwg. No. 439721			1		P-720560-502				1		7		1		2		3	T-202 (Qty/Eq. 1)
T-203	Antenna Transformer, Band 3	Similar to T-201 except different coil windings, d.c. resistance of each winding, 10-3/4 turns 0.012 ohm, 4 turns 0.088 ohm, 2 turns 0.059 ohm, inductance of terminals C-D 1.029 microhenries, A-F 1.115 microhenries; see Winding data, Fig. 5-34, Dwg. No. 439712			1		P-720560-503				1		7		1		2		3	T-203 (Qty/Eq. 1)

* *For Contract NXss-17001 (RBB-2/RBC-2)*
↓ *For Contract NXsr-39262 (RBB-2/RBC-2)*

PRESELECTOR UNIT (Continued)

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT RBB RBB-1 RBB-2 *	EQUIPMENT RBC RBC-1 RBC-2 *	EQUIPMENT RBB-2 ↓	EQUIPMENT RBC-2 ↓	BASE RBB	BASE RBC	BASE RBB-1 RBB-2 *	BASE RBC-1 RBC-2 *	TENDER RBB-2 ↓	TENDER RBC-2 ↓	STOCK RBB-2 ↓	STOCK RBC-2 ↓	ALL SYMBOL DESIGNATIONS INVOLVED
		TRANSFORMERS (Continued)																		
T-204	Antenna Transformer, Band 4	Similar to T-201 except different coil windings, d.c. resistance of each winding, 1-3/4 turns 0.050 ohm, 2-1/2 turns 0.062 ohm, 5-1/4 turns 0.007 ohm, 4-3/4 turns 0.007 ohm, inductance of terminals C-D 0.35 microhenries, A-F 0.398 microhenries; see Winding data, Figure 5-35, Dwg. No. 439726			1		P-720560-504				1		7		1		2		3	T-204 (Qty/Eq. 1)
T-205	1st R-F Transformer, Band 1	Assembly consisting of: one coil form over which are wound two wax impregnated coils, d.c. resistance of each winding, 96 turns 2.33 ohms, 27 turns 0.14 ohm, inductance of terminals A-F 8.43 microhenries with 200 mmfd across terminals B-C (C-224) one core and stud assembly, one triangular music wire spring, one brass bushing 3/8" long; see Winding data Figure 5-36 Dwg. No. 439725			1		M-420940-501				1		7		1		4		6	T-205,209 (Qty/Eq. 2)
T-206	1st R-F Transformer, Band 2	Similar to T-205 except different coil windings, d.c resistance of each winding, 110 turns 1.78 ohms, 16 turns 0.072 ohm, inductance of terminals A-F 2.99 microhenries with 200 mmfd across terminals B-C (R-204); see Winding data Figure 5-37, Dwg. No. 439724			1		M-420940-502				1		7		1		4		6	T-206,210 (Qty/Eq. 2)
T-207	1st R-F Transformer, Band 3	Similar to T-205 except different coil windings, d.c. resistance of each winding, 49 turns 0.80 ohm, 11-1/4 turns 0.012 ohm, inductance of terminals A-F 1.114 microhenries, with 200 mmfd across terminals B-C; see Winding data, Figure 5-38, Dwg. No. 439722			1		M-420940-503				1		7		1		4		6	T-207,211 (Qty/Eq. 2)
T-208	1st R-F Transformer, Band 4	Similar to T-205 except different coil windings, d.c resistance of each winding, 21 turns 0.40 ohm, 4-3/4 turns 0.007 ohm, inductance of terminals A-F 0.374 microhenries with 200 mmfd across terminals B-C, (C-261); see Winding data Figure 5-39, Dwg. No. 439727			1		M-420940-504				1		7		1		2		3	T-208 (Qty/Eq. 1)
T-209	2nd R-F Transformer, Band 1	Same as T-205																		
T-210	2nd R-F Transformer, Band 2	Same as T-206																		
T-211	2nd R-F Transformer, Band 3	Same as. T-207																		

* For Contract NXss-17001 (RBB-2/RBC-2)
↓ For Contract NXsr-39262 (RBB-2/RBC-2)

RESTRICTED

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION
FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

PRESELECTOR UNIT (Continued)

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT RBB RBB-1 RBB-2 *	EQUIPMENT RBC RBC-1 RBC-2 *	EQUIPMENT RBB-2 ↓	EQUIPMENT RBC-2 ↓	BASE RBB	BASE RBC	BASE RBB-1 RBB-2 *	BASE RBC-1 RBC-2 *	TENDER RBB-2 ↓	TENDER RBC-2 ↓	STOCK RBB-2 ↓	STOCK RBC-2 ↓	ALL SYMBOL DESIGNATIONS INVOLVED
		TRANSFORMERS (Continued)																		
T-212	2nd R-F Transformer, Band 4	Similar to T-205 except different coil windings, d.c. resistance of each winding, 27 turns 0.53 ohm, 4-1/4 turns 0.006 ohm, inductance of terminals A-F 0.327 microhenries with 200 mmfd across terminals B-C; see Winding data, Figure 5-40, Dwg. No. 439723			1		M-420940-505				1		7		1		2		3	T-212 (Qty/Eq. 1)
T-213	Oscillator Transformer, Band 1	Assembly consisting of: one coil form over which is wound one wax impregnated coil, d.c. resistance 0.405 ohm, inductance of terminals C-F 7.75 microhenries, one core and stud assembly, one triangular music wire spring, one brass bushing 3/8" long, includes C-218; see Winding data, Figure 5-41, Dwg. No. 439705			1		◊M-420957-501				1		7		1		2		3	T-213 (Qty/Eq. 1)
T-214	Oscillator Transformer, Band 2	Similar to T-213 except different coil windings, d.c. resistance 0.061 ohm, inductance of terminals C-F 2.81 microhenries, includes C-219; see Winding data Figure 5-42, Dwg. No. 439719			1		8M-420957-502				1		7		1		2		3	T-214 (Qty/Eq. 1)
T-215	Oscillator Transformer, Band 3	Similar to T-213 except different coil windings, d.c. resistance 0.017 ohm, inductance of terminals C-F 1.035 microhenries, includes C-220, see Winding data, Figure 5-43, Dwg. No. 439718			1		†M-420957-503				1		7		1		2		3	T-215 (Qty/Eq. 1)
T-216	Oscillator Transformer, Band 4	Similar to T-213 except different coil windings, d.c. resistance 0.009 ohm, inductance of terminals C-F 0.347 microhenries, includes C-221; see Winding data, Figure 5-44, Dwg. No. 439717			1		‡M-420957-504				1		7		1		2		3	T-216 (Qty/Eq. 1)
		VACUUM TUBES																		
V-201	1st R-F Tube	Same as V-103	-6AB7																	
V-202	2nd R-F Tube	Same as V-101	-6SK7																	
V-203	Oscillator Tube	Same as V-103	-6AB7																	
V-204	1st Detector Tube	Same as V-101	-6SK7																	
V-205	Gaseous Voltage Limiter Tube	Same as V-105	-991																	
V-206	Oscillator Heater Regulator Tube	Same as V-106																		

* *For Contract NXss-17001 (RBB-2/RBC-2)*
↓ *For Contract NXsr-39262 (RBB-2/RBC-2)*
◊ *Use M-420957-505 as a spare part for T-213.*
8 *Use M-420957-506 as a spare part for T-214.*
† *Use M-420957-507 as a spare part for T-215.*
‡ *Use M-420957-508 as a spare part for T-216.*

PRESELECTOR UNIT (Continued)

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION
FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT RBB RBB-1 RBB-2 *	EQUIPMENT RBC RBC-1 RBC-2 *	EQUIPMENT RBB-2 ↓	EQUIPMENT RBC-2 ↓	BASE RBB	BASE RBC	BASE RBB-1 RBB-2 *	BASE RBC-1 RBC-2 *	TENDER RBB-2 ↓	TENDER RBC-2 ↓	STOCK RBB-2 ↓	STOCK RBC-2 ↓	ALL SYMBOL DESIGNATIONS INVOLVED
		WIRES & CONDUCTORS																		
W-201	Transmission Line	Same as W-101																		
W-202	Wiring Material (RBC, H-F Preselector Unit)	Assembly consists of: E-242,243; W-203 to W-218 inclusive			1		K-874539-501													W-202 (Qty/Eq. 1)
W-203	Hook-up Wire for Wiring Material (W-202)	Similar to W-104 except brown tracer, 55-1/4" long			416		K-874539-4				1						1		1	W-203 (Qty/Eq. 1)
W-204	Hook-up Wire for Wiring Material (W-202)	Similar to W-103 except black-brown tracer, 12-1/2" long			416		K-874539-5				1						1		1	W-204 (Qty/Eq. 1)
W-205	Hook-up Wire for Wiring Material (W-202)	Similar to W-103 except red-blue tracer, 60-3/4" long			416		K-874539-6				1						1		1	W-205 (Qty/Eq. 1)
W-206	Hook-up Wire for Wiring Material (W-202)	Similar to W-103 except black tracer, 39-3/8" long			416		K-874539-7				1						1		1	W-206 (Qty/Eq. 1)
W-207	Hook-up Wire for Wiring Material (W-202)	Similar to W-103 except yellow tracer, 71-5/8" long			416		K-874539-8				1						1		1	W-207 (Qty/Eq. 1)
W-208	Hook-up Wire for Wiring Material (W-202)	Similar to W-103 except red tracer, 72-5/8" long			416		K-874539-9				1						1		1	W-208 (Qty/Eq. 1)
W-209	Hook-up Wire for Wiring Material (W-202)	Similar to W-103 except black-yellow tracer, 42-3/8" long			416		K-874539-10				1						1		1	W-209 (Qty/Eq. 1)
W-210	Hook-up Wire for Wiring Material (W-202)	Similar to W-103 except red-green tracer, 52-1/4" long			416		K-874539-11				1						1		1	W-210 (Qty/Eq. 1)
W-211	Hook-up Wire for Wiring Material (W-202)	Similar to W-103 except green-black tracer, 16" long			416		K-874539-12				1						1		1	W-211 (Qty/Eq. 1)
W-212	Hook-up Wire for Wiring Material (W-202)	Similar to W-103 except white tracer, 43-1/2" long			416		K-874539-13				1						1		1	W-212 (Qty/Eq. 1)
W-213	Bus Connection Wire for Wiring Material (W-202)	AWG #16 tinned soft copper wire, 21-5/16" long			416		K-874539-14				1						1		1	W-213 (Qty/Eq. 1)
W-214	Waxed Lacing Cord for Wiring Material (W-202)	Linen #6, gray color, 120" long			1		K-874539-17				1						1		1	W-214 (Qty/Eq. 1)
W-215	Cable for Wiring Material (W-202)	Assembly consisting of: two conductors made from W-103 having green tracers, one wire 14-3/8" long, other wire 30-3/4" long, covered with a tinned copper braid 0.005" dia., closely braided, 32" overall length, one end 1-3/4" leads, other end 3-1/2" leads, two other leads coming off 21-3/8" from one end, leads 5/8" apart and 6-1/4" long flexible			1		M-427884-502				1						1		1	W-215 (Qty/Eq. 1)

* For Contract NXss-17001 (RBB-2/RBC-2)
↓ For Contract NXsr-39262 (RBB-2/RBC-2)

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION
FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

PRESELECTOR UNIT (Continued)

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT RBB RBB-1 RBB-2*	EQUIPMENT RBC RBC-1 RBC-2*	EQUIPMENT RBB-2↓	EQUIPMENT RBC-2↓	BASE RBB	BASE RBC	BASE RBB-1 RBB-2*	BASE RBC-1 RBC-2*	TENDER RBB-2↓	TENDER RBC-2↓	STOCK RBB-2↓	STOCK RBC-2↓	ALL SYMBOL DESIGNATIONS INVOLVED
							WIRES & CONDUCTORS (Continued)													
W-216	Hook-up Wire for Wiring Material (W-202)	Similar to W-104 except black tracer, 49-1/4" long			416		K-874539-20				1						1		1	W-216 (Qty/Eq. 1)
W-217	Hook-up Wire for Wiring Material (W-202)	Similar to W-103 except brown tracer, 48-3/8" long			416		K-874539-21				1						1		1	W-217 (Qty/Eq. 1)
				SOCKETS																
X-201	1st R-F Tube Socket	Same as X-101	-49373																	
X-201A	Socket for Dial Lamp (I-201A)	Same as X-101A																		
X-202	2nd R-F Tube Socket	Same as X-101	-49373																	
X-202A	Socket for Dial Lamp (I-202A)	Same as X-102A																		
X-203	Oscillator Tube Socket	Same as X-101	-49373																	
X-204	1st Detector Tube Socket	Same as X-104	-49373																	
X-205	Gaseous Voltage Limiter Tube Socket	Same as X-105																		
X-206	Oscillator Heater Regulator Tube Socket	Same as X-106	-49368																	
				MISCELLANEOUS																
	Solder	120" long			1		K-874539-16				1						1		1	
	Tape	Black vartex, resinous, 0.010" thick, 3/4" wide, 12" long			1		K-99602-22													
	Cement	Vinylite #4			1		K-90485-3													

* For Contract NXss-17001 (RBB-2/RBC-2)
↓ For Contract NXsr-39262 (RBB-2/RBC-2)

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

IF/AF UNIT

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT RBB RBB-1 RBB-2 *	EQUIPMENT RBC RBC-1 RBC-2 *	EQUIPMENT RBB-2 ↓	EQUIPMENT RBC-2 ↓	BASE RBB	BASE RBC	BASE RBB-1 RBB-2 *	BASE RBC-1 RBC-2 *	TENDER RBB-2 ↓	TENDER RBC-2 ↓	STOCK RBB-2 ↓	STOCK RBC-2 ↓	ALL SYMBOL DESIGNATIONS INVOLVED
				CAPACITORS																
C-301	CW Oscillator Vernier Capacitor	Same as C-128	-481377																	
C-302	3rd I-F Grid Capacitor	Fixed, ceramic, 3 mmfd ±0.5 mmfd, 500 v d.c. working, temp. coeff. ±60 x 10^{-6} mmfd/mmfd/°C			16	Ceramicon NPOK-3±60	K-874805-9	1	1	1	1					1	1	1	1	C-302 (Qty/Eq. 1)
C-303	CW Oscillator Coupling Capacitor	Same as C-217	-48674-B10																	
C-304	3rd I-F Grid Capacitor	Fixed, ceramic, 7 mmfd ±10%, 500 v d.c. working, temp. coeff. ±60 x 10^{-6} mmfd/mmfd/°C			16	Ceramicon NPOK-7±60	K-874805-10	1	1	1	1					1	1	1	1	C-304 (Qty/Eq. 1)
C-305	CW Oscillator Grid Capacitor	Same as C-105	-48895-D10																	
C-306	AVC Coupling Capacitor (Part of W-324)	Same as C-217	-48674-B10																	
C-307	Diode Secondary Capacitor	Fixed, molded mica, 20 mmfd ±5%, 500 v d.c. working, temp. coeff. ±0.01%/°C., low loss case	-48783-D5	RE 48A 154	2 13 16 29 34 245	1469 5RS M1K20 PO MOSDW 603M	P-720538-1	1	1	1	1					1	1	1	1	C-307 (Qty/Eq. 1)
C-308	1st A-F Plate Capacitor (Part of E-311)	Fixed, molded mica, 1500 mmfd ±5%, 500 v d.c. working, low loss case	-481088-B5	RE 48A 154	2 29 34	1467LS WXM MWBW	P-720538-44	1	1	1	1					1	1	1	1	C-308 (Qty/Eq. 1)
C-309	Diode Capacitor	Same as C-217	-48674-B10																	
C-310	1st I-F Primary Capacitor	Same as C-107	-48691-D5																	
C-311	1st I-F Secondary Capacitor	Same as C-107	-48691-D5																	
C-312	2nd I-F Primary Capacitor	Same as C-107	-48691-D5																	
C-313	2nd I-F Secondary Capacitor	Same as C-107	-48691-D5																	
C-314	3rd I-F Primary Capacitor	Same as C-107	-48691-D5																	
C-315	3rd I-F Secondary Capacitor	Same as C-107	-48691-D5																	

* *For Contract NXss-17001 (RBB-2/RBC-2)*
↓ *For Contract NXsr-39262 (RBB-2/RBC-2)*

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION
FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

IF/AF UNIT (Continued)

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT RBB RBB-1 RBB-2 *	EQUIPMENT RBC RBC-1 RBC-2 *	EQUIPMENT RBB-2 ↓	EQUIPMENT RBC-2 ↓	BASE RBB	BASE RBC	BASE RBB-1 RBB-2 *	BASE RBC-1 RBC-2 *	TENDER RBB-2 ↓	TENDER RBC-2 ↓	STOCK RBB-2 ↓	STOCK RBC-2 ↓	ALL SYMBOL DESIGNATIONS INVOLVED
		CAPACITORS (Continued)																		
C-316	Diode Primary Capacitor	Same as C-107	-48691-D5																	
C-317	Diode Secondary Capacitor	Same as C-107	-48691-D5																	
C-318	CW Oscillator Capacitor	Fixed, molded mica, 500 mmfd ±2%, 500 v d.c. working, temp. coeff. +0.001% to +0.0034%/°C., low loss case	-481676 Δ481320	RE 48A 154	16	M4J500	P-721081-13	1	1	1	1					1	1	1	1	C-318 (Qty/Eq. 1)
C-319	3rd I-F Grid Coupling Capacitor (Part of W-324)	Same as C-106	-48691-D10																	
C-320	Noise Limiter By-pass Capacitor (Part of E-306)	Same as C-123	-48848-B10																	
C-321	Not Used																			
C-322	1st A-F Grid Coupling Capacitor (Part of E-307)	Same as C-115	-48938-B10																	
C-323	1st A-F Plate Coupling Capacitor (Part of E-307)	Fixed, molded mica, 2000 mmfd ±5%, 500 v d.c. working, low loss case	-48856-B5	RE 48A 154	2 29 34	1467LS WXM MWBW	P-720538-45	1	1	1	1					1	1	1	1	C-323 (Qty/Eq. 1)
C-324	Output Limiter Coupling Capacitor (Part of E-307)	Same as C-112	-481425-B10																	
C-325	Output Tube Grid Coupling Capacitor (Part of E-307)	Same as C-112	-481425-B10																	
C-326	1st I-F Grid Filter Capacitor (Part of E-307)	Same as C-112	-481425-B10																	
C-327	2nd I-F Grid Filter Capacitor (Part of E-307)	Same as C-112	-481425-B10																	
C-328	Diode Output Coupling Capacitor (Part of E-307)	Same as C-115	-48938-B10																	

* *For Contract NXss-17001 (RBB-2/RBC-2)* Δ *Used as Navy Type No. on RBB/RBC, RBB-1/RBC-1 Only.*
↓ *For Contract NXsr-39262 (RBB-2/RBC-2)*

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION
FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

IF/AF UNIT (Continued)

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT RBB RBB-1 RBB-2 *	EQUIPMENT RBC RBC-1 RBC-2 *	EQUIPMENT RBB-2 ↓	EQUIPMENT RBC-2 ↓	BASE RBB	BASE RBC	BASE RBB-1 RBB-2 *	BASE RBC-1 RBC-2 *	TENDER RBB-2 ↓	TENDER RBC-2 ↓	STOCK RBB-2 ↓	STOCK RBC-2 ↓	ALL SYMBOL DESIGNATIONS INVOLVED
			CAPACITORS (Continued)																	
C-329	AVC Filter Capacitor (Part of E-309)	Same as C-112	-481425-B10																	
C-330	2nd I-F Cathode By-pass Capacitor (Part of E-307)	Same as C-115	-48938-B10																	
C-331	2nd I-F Screen By-pass Capacitor (Part of E-307)	Same as C-115	-48938-B10																	
C-332	2nd I-F Plate By-pass Capacitor (Part of E-307)	Same as C-115	-48938-B10																	
C-333	3rd I-F Cathode By-pass Capacitor (Part of E-303)	Same as C-115	-48938-B10																	
C-334	3rd I-F Screen By-pass Capacitor (Part of E-303)	Same as C-115	-48938-B10																	
C-335	3rd I-F Plate By-pass Capacitor (Part of E-303)	Same as C-115	-48938-B10																	
C-336	CW Oscillator Plate By-pass Capacitor (Part of E-316)	Same as C-115	-48938-B10																	
C-337	CW Oscillator Screen Filter Capacitor (Part of E-316)	Same as C-115	-48938-B10																	
C-338	1st I-F Cathode By-pass Capacitor (Part of E-307)	Same as C-115	-48938-B10																	
C-339	1st Detector Plate By-pass Capacitor (Part of W-324)	Same as C-123	-48848-B10																	
C-340	AVC Filter A-F Capacitor (Part of E-315)	Same as C-259	-481037-B10																	

* For Contract NXss-17001 (RBB-2/RBC-2)
↓ For Contract NXsr-39262 (RBB-2/RBC-2)

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

IF/AF UNIT (Continued)

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT RBB RBB-1 RBB-2 *	EQUIPMENT RBC RBC-1 RBC-2 *	EQUIPMENT RBB-2 ↓	EQUIPMENT RBC-2 ↓	BASE RBB	BASE RBC	BASE RBB-1 RBB-2 *	BASE RBC-1 RBC-2 *	TENDER RBB-2 ↓	TENDER RBC-2 ↓	STOCK RBB-2 ↓	STOCK RBC-2 ↓	ALL SYMBOL DESIGNATIONS INVOLVED
CAPACITORS (Continued)																				
C-341	Output Limiter Coupling Capacitor	Fixed, paper, oil filled, 0.1 mfd ±10%, 400 v d.c. working	-481379-10	RE 13A 488	1		P-720555-57	1	1	1	1					2	2	1	1	C-341 (Qty/Eq. 1)
C-342A B	AVC Filter Capacitor and A-F Screen By-pass Capacitor	Fixed, paper, oil filled, two sections 0.05/0.125 mfd ±10%, 400 v d.c. working	-481380-10	RE 13A 488	1		P-720555-59	1	1	1	1					2	2	1	1	C-342A&B (Qty/Eq. 1)
C-343A B	1st A-F Screen By-pass Capacitor Output Limiter Amplifier Screen By-pass Capacitor	Fixed, paper, oil filled, two sections 0.125/0.125 mfd ±10%, 400 v d.c. working	-481167-10	RE 13A 488	1		P-720555-55	2	2	1	1					3	3	5	5	C-343A&B, 373A&B, 403A&B, 404A&B, (Qty/Eq. 4)
C-344	CW Oscillator Filter Capacitor	Fixed, paper, oil filled, single section 1.0 mfd ±10%, 400 v d.c. working	-48595-A10	RE 13A 488	1		P-720555-52	4	4	4	4					12	12	20	20	C-344,345, 346,347, 348,350, 351,352 (Qty/Eq. 8)
C-345	I-F Cathode By-pass Capacitor	Same as C-344	-48595-A10																	
C-346	I-F Screen By-pass Capacitor	Same as C-344	-48595-A10																	
C-347	Plate Supply By-pass Capacitor	Same as C-344	-48595-A10																	
C-348	1st A-F Plate Filter Capacitor	Same as C-344	-48595-A10																	
C-349	Tuning Meter Filter Capacitor (Part of Z-302)	Same as C-115	-48938-B10																	
C-350	Output Limiter Control Capacitor	Same as C-344	-48595-A10																	
C-351	CW Oscillator Filament By-pass Capacitor	Same as C-344	-48595-A10																	
C-352	R-F Gain Control By-pass Capacitor	Same as C-344	-48595-A10																	
C-353	Phone Lead Filter Capacitor	Same as C-112	-481425-B10																	

* *For Contract NXss-17001 (RBB-2/RBC-2)*
↓ *For Contract NXsr-39262 (RBB-2/RBC-2)*

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION
FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

IF/AF UNIT (Continued)

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT				BASE				TENDER		STOCK		ALL SYMBOL DESIGNATIONS INVOLVED
								RBB RBB-1 RBB-2*	RBC RBC-1 RBC-2*	RBB-2↓	RBC-2↓	RBB	RBC	RBB-1 RBB-2*	RBC-1 RBC-2*	RBB-2↓	RBC-2↓	RBB-2↓	RBC-2↓	
			CAPACITORS (Continued)																	
C-354	Phone Lead Filter Capacitor	Same as C-112	-481425-B10																	
C-355	Output Plug Filter Capacitor (Part of Z-301)	Same as C-123	-48848-B10																	
C-356	Output Plug Filter Capacitor (Part of Z-301)	Same as C-123	-48848-B10																	
C-357	17 Volt Supply By-pass Capacitor (Part of E-302)	Same as C-115	-48938-B10																	
C-358	Filament By-pass Capacitor (Part of E-302)	Same as C-115	-48938-B10																	
C-359	A-C Switch Lead By-pass Capacitor (Part of E-302)	Same as C-115	-48938-B10																	
C-360	A-C Switch Lead By-pass Capacitor (Part of E-302)	Same as C-115	-48938-B10																	
C-361	"B" Supply By-pass Capacitor (Part of E-302)	Same as C-115	-48938-B10																	
C-362	105 Volt Oscillator "B" Supply By-pass Capacitor (Part of E-302)	Same as C-115	-48938-B10																	
C-363	R-F Gain Control By-pass Capacitor	Same as C-115	-48938-B10																	
C-364	Tuning Meter Filter Capacitor (Part of Z-302)	Same as C-115	-48938-B10																	
C-365	Tuning Meter Filter Capacitor (Part of Z-302)	Same as C-115	-48938-B10																	

* For Contract NXss-17001 (RBB-2/RBC-2)
↓ For Contract NXsr-39262 (RBB-2/RBC-2)

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION
FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

IF/AF UNIT (Continued)

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT RBB RBB-1 RBB-2 *	EQUIPMENT RBC RBC-1 RBC-2 *	EQUIPMENT RBB-2 ↓	EQUIPMENT RBC-2 ↓	BASE RBB	BASE RBC	BASE RBB-1 RBB-2 *	BASE RBC-1 RBC-2 *	TENDER RBB-2 ↓	TENDER RBC-2 ↓	STOCK RBB-2 ↓	STOCK RBC-2 ↓	ALL SYMBOL DESIGNATIONS INVOLVED
			CAPACITORS (Continued)																	
C-366	Voltmeter By-pass Capacitor (Part of Z-302)	Same as C-115	-48938-B10																	
C-367	Filament By-pass Capacitor (Part of E-309)	Same as C-115	-48938-B10																	
C-368	Phone Lead Filter Capacitor	Same as C-112	-481425-B10																	
C-369	Phone Lead Filter Capacitor	Same as C-112	-481425-B10																	
C-370	Tuning Meter Filter Capacitor (Part of Z-302)	Same as C-115	-48938-B10																	
C-371	AVC Cathode By-pass Capacitor (Part of E-307)	Same as C-106	-48691-D10																	
C-372	Silencer Amplifier Grid By-pass Capacitor (Part of E-307)	Same as C-115	-48938-B10																	
C-373A B	Silencer Amplifier Plate By-pass Capacitor Silencer Amplifier Plate By-pass Capacitor	Same as C-343A&B	-481167-10																	
C-374	Silencer Diode Coupling Capacitor (Part of E-314)	Same as C-115	-48938-B10																	
C-375	Audio AVC Filter Capacitor (Part of E-307)	Same as C-112	-481425-B10																	
C-376	Output Plate By-pass Capacitor (Part of E-307)	Same as C-106	-48691-D10																	

* For Contract NXss-17001 (RBB-2/RBC-2)
↓ For Contract NXsr-39252 (RBB-2/RBC-2)

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION
FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

IF/AF UNIT (Continued)

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT RBB RBB-1 RBB-2*	EQUIPMENT RBC RBC-1 RBC-2*	EQUIPMENT RBB-2↓	EQUIPMENT RBC-2↓	BASE RBB	BASE RBC	BASE RBB-1 RBB-2*	BASE RBC-1 RBC-2*	TENDER RBB-2↓	TENDER RBC-2↓	STOCK RBB-2↓	STOCK RBC-2↓	ALL SYMBOL DESIGNATIONS INVOLVED
		MISCELLANEOUS ELECTRICAL PARTS																		
E-301	Terminal Board Under J-301,302	Assembly consists of: laminated phenolic insulated board, 6-5/8" long, 3/4" wide, 3/16" thick with 8 brass terminals 0.064" thick, 2 holes 0.136" dia. and one brass terminal, 1 hole 0.136" dia. other hole 0.281" dia., complete with 2 mounting holes 0.173" dia.		17-P-5	1		K-866349-501													E-301 (Qty/Eq. 1)
E-302	Terminal Board (TB-307) Located Near J-301	Assembly consists of: terminal board E-302A with C-357,358,359,360,361,362, and assembling hardware			1		K-871166-501													E-302 (Qty/Eq. 1)
E-302A	Terminal Board for E-302	Laminated phenolic, insulating material 4-3/4" long, 1-7/8" wide, 3/32" thick, complete with 14 brass terminals 0.128" dia., brass elastic stop nut threaded #6-32 threads and mounting hole 0.173" dia.			1		K-865237-501													E-302A (Qty/Eq. 1)
E-303	Terminal Board (TB-305) Located Near X-303	Assembly consists of: terminal board E-303A with C-333,334,335, R-311,319,322,328 and assembling hardware			1		P-721101-505													E-303 (Qty/Eq. 1)
E-303A	Terminal Board for E-303	Same as E-114A																		
E-304	"Radio Selectivity", "Output Level", "Silencer", "Noise Limiter", "Gain", "Reception" Knobs	Black molded compound, 7/8" long, counterbored, 2 holes tapped #8-32 threads, white line engraved on face, complete with 2 setscrews threaded #8-32 and brass insert			1		M-421027-502											6	6	E-304 (Qty/Eq. 6)
E-305	"Zero Set", "Add Decebels", "Frequency Vernier" Knobs	Same as E-104																		
E-306	Terminal Board (TB-301) Located Near X-309	Assembly consists of: terminal board E-306A with C-320, R-340,341 and assembling hardware			1		P-721101-501													E-306 (Qty/Eq. 1)
E-306A	Terminal Board for E-306	Ceramic insulation, wax impregnated, 3" long, 1-1/2" wide, 3/16" thick, 12 brass terminals, 2 mounting holes 0.173" dia.		RE 13A 317F	165		M-420895-501			2	1					3	2	3	2	E-306A (Qty/Eq. 1)

* For Contract NXss-17001 (RBB-2/RBC-2)
↓ For Contract NXsr-39262 (RBB-2/RBC-2)

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION
FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

IF/AF UNIT (Continued)

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT RBB RBB-1 RBB-2*	EQUIPMENT RBC RBC-1 RBC-2*	EQUIPMENT RBB-2↓	EQUIPMENT RBC-2↓	BASE RBB	BASE RBC	BASE RBB-1 RBB-2*	BASE RBC-1 RBC-2*	TENDER RBB-2↓	TENDER RBC-2↓	STOCK RBB-2↓	STOCK RBC-2↓	ALL SYMBOL DESIGNATIONS INVOLVED
		MISCELLANEOUS ELECTRICAL PARTS (Continued)																		
E-307	Terminal Board (TB-306) Extending Through the Center of the Unit	Assembly consists of: terminal board E-307A with C-322,323,324,325,326,327,328,330,331,332,338, 371,372,375,376, R-309,310,313,314,315,316,318, 324,325,326,335,336,339,343,344,349,350,352, 356,359,360,371 and assembling hardware			1		P-721101-506													E-307 (Qty/Eq. 1)
E-307A	Terminal Board for E-307	Laminated, phenolic insulated material 14-1/8" long, 1-3/4" wide, 3/32" thick, 68 brass terminals 0.128" dia., 6 mounting holes 0.136" dia. and three aluminum mounting brackets 0.091" thick,3/8" wide, 3-13/32" long		17-P-5 Type FBE	1		M-420891-502													E-307A (Qty/Eq. 1)
E-308	Terminal Board (TB-309) Located Near X-310,311	Insulated material, wax impregnated, 1-11/16" long, 5/8" wide, 1/16" thick, 2 mounting holes 0.154" dia. complete with brass link 3/4" long, 0.154" dia. hole, shakeproof lockwasher and binder headscrew threaded #6-32 threads, 3/8" long, swaged to prevent removal		17-P-5 Type FBE	1		K-856696-1													E-308 (Qty/Eq. 1)
E-309	Terminal Board (TB-304) Located Near T-302	Assembly consists of: terminal board E-309A with C-329,363,367, R-320,327,366 and assembling hardware			1		P-721101-504													E-309 (Qty/Eq. 1)
E-309A	Terminal Board for E-309	Laminated, phenolic, insulated material, 3-7/16" long, 1-3/4" wide, 3/32" thick, 14 brass terminals 0.128" dia., 2 mounting holes 0.173" dia.		17-P-5 Type FBE	1		K-866500-501													E-309A (Qty/Eq. 1)
E-310	Bushing Insulators for Terminal Screws	Same as E-111	-61260																	
E-311	Terminal Board (TB-303) Located Near T-301	Assembly consists of: terminal board E-311A with C-308, R-312,331,334,367,370 and assembling hardware			1		P-721101-503													E-311 (Qty/Eq. 1)
E-311A	Terminal Board for E-311	Same as E-107A																		
E-312	Bushing Insulator Behind 'Frequency Vernier" Knob E-305	Brass, 1-3/16" long, 0.250" I.D., threaded 3/8"-32 threads, 1/2" across flats			1		K-806568-8													E-312 (Qty/Eq. 1)
E-313	Insulator for Vernier Capacitor C-301	Polystyrene bakelite, 0.490" shank O.D., 0.625" shoulder O.D., two holes 0.125" dia.			1		K-881103-1			1	1					1	1	2	2	E-313 (Qty/Eq. 1)

* For Contract NXss-17001 (RBB-2/RBC-2)
↓ For Contract NXsr-39262 (RBB-2/RBC-2)

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION
FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

IF/AF UNIT (Continued)

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT RBB RBB-1 RBB-2 *	EQUIPMENT RBC RBC-1 RBC-2 *	EQUIPMENT RBB-2 ↓	EQUIPMENT RBC-2 ↓	BASE RBB	BASE RBC	BASE RBB-1 RBB-2 *	BASE RBC-1 RBC-2 *	TENDER RBB-2 ↓	TENDER RBC-2 ↓	STOCK RBB-2 ↓	STOCK RBC-2 ↓	ALL SYMBOL DESIGNATIONS INVOLVED
		MISCELLANEOUS ELECTRICAL PARTS (Continued)																		
E-314	Terminal Board (TB-310) Located Near First Section of S-304	Assembly consists of: C-374, E-314A			1		K-871328-501													E-314 (Qty/Eq. 1)
E-314A	Terminal Board for E-314	Laminated, phenolic, insulated material, 2" x 1-9/16" x 3/32", 3 brass terminals 0.128" dia., 2 mounting holes 0.173" dia.			1		K-871328-2													E-314A (Qty/Eq. 1)
E-315	Terminal Board (TB-302) Located Near X-305	Assembly consists of: terminal board E-315A with C-340, R-317,338,345,347,348,354,355,358 and assembling hardware			1		P-721101-502													E-315 (Qty/Eq. 1)
E-315A	Terminal Board for E-315	Same as E-306A																		
E-316	Terminal Board (TB-1) for CW Oscillator Located Near T-306	Assembly consists of: terminal board E-316A with C-336,337, R-323,346 and assembling hardware			1		K-864821-501													E-316 (Qty/Eq. 1)
E-316A	Terminal Board for E-316	Laminated, phenolic, insulated material, 2-5/16" long, 1-5/8" wide, 1/32" thick, 8 brass terminals 0.128" dia., 2 mounting holes 0.136" dia.			1		K-864821-2													E-316A (Qty/Eq. 1)
E-317	Terminal Board (TB-2) for CW Oscillator Located Near X-304	Laminated, phenolic, insulated material, 1-1/2" long, 7/8" wide, 1/8" thick, 3 terminals 0.128" dia., 2 mounting holes 0.173" dia.		17-P-5 Type FBE	1		K-874319-501													E-317 (Qty/Eq. 1)
E-318	Insulator for CW Oscillator (Part of E-333)	Same as E-224																		
E-319	Terminal Board for 1st I-F Transformer T-302	Polystyrene bakelite, 1.281" square, 0.093" thick, 6 terminals, 5/16" O.D., center hole 0.437" O.D.			1		K-854731-5													E-319 (Qty/Eq. 1)
E-320	Terminal Board for CW Oscillator Transformer T-306	Similar to E-319 except 4 terminals			1		K-854731-1													E-320 (Qty/Eq. 1)
E-321	Potentiometer for Control Panel	Assembly consists of: aluminum bracket, R-362, 364,368			1		M-421555-502													E-321 (Qty/Eq. 1)

* For Contract NXss-17001 (RBB-2/RBC-2)
↓ For Contract NXsr-39262 (RBB-2/RBC-2)

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION
FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

IF/AF UNIT (Continued)

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT RBB RBB-1 RBB-2 *	EQUIPMENT RBC RBC-1 RBC-2 *	EQUIPMENT RBB-2 ↓	EQUIPMENT RBC-2 ↓	BASE RBB	BASE RBC	BASE RBB-1 RBB-2 *	BASE RBC-1 RBC-2 *	TENDER RBB-2 ↓	TENDER RBC-2 ↓	STOCK RBB-2 ↓	STOCK RBC-2 ↓	ALL SYMBOL DESIGNATIONS INVOLVED
		MISCELLANEOUS ELECTRICAL PARTS (Continued)																		
E-322	Spade Terminal for Wiring Material (W-324)	Brass, "Y" shaped, one end 0.343" O.D., 0.144" I.D., 0.75" overall length			1		K-61580-1			3	3					3	3	3	3	E-322 (Qty/Eq. 3)
E-323	Terminal Used With Weston Meters M-301, 302,303	Brass strip, hot tin dipped, 0.025" thick, 0.343" O.D., 0.180" I.D. at one end, 0.109" body O.D.			1		K-8431-1											⊕	⊕	E-323 (Qty/Eq. 2)
E-324	Terminal for Wiring Material (W-324)	Copper, one end, 0.375" O.D. with 0.170" dia. hole, other end 0.156" O.D. with 0.093" dia. hole, 1.125" long			521	Cat.#4035 Modified	K-823061-1			2	2					2	2	2	2	E-324 (Qty/Eq. 2)
E-325	Insulation for Wiring Material (W-324)	Same as E-126																		
E-326	Terminal Board for Filter Choke L-305	Laminated, phenolic, insulated material 1/16" thick, 1-1/4" long, 1" wide, 2 terminals 0.128" dia., center hole 0.316" O.D.		17-P-5 Type FBE	1		M-421256-504													E-326 (Qty/Eq. 1)
E-327	Terminal Board (TB-311) for Output Plug Filter L-304A&B	Laminated insulation, 0.006" thick, 1.320" square, center hole 0.316" O.D., 3 full terminals 0.216" long, 0.031" wide		17-P-5 Type FBE	1		M-420380-521													E-327 (Qty/Eq. 1)
E-328	Terminal Board (TB-311) for Output Plug Filter L-304A&B	Laminated, phenolic, insulated material, 1/16" thick, 1-1/8" long, 1-1/16" wide, center hole 0.316" O.D., 2 terminals 0.128" dia., 2 holes 0.147" dia., hole between terminals 0.128" dia.		17-P-5 Type FBE	1		M-421256-505													E-328 (Qty/Eq. 1)
E-329	Terminal Board for Phone Lead Filter L-303A&B	Laminated, phenolic, insulated material, 1/16" thick, 1-1/4" long, 1" wide, 2 terminals 0.128" dia., center hole 0.316" O.D., mounting hole 0.187" dia.		17-P-5 Type FBE	1		K-871374-501													E-329 (Qty/Eq. 1)
E-330	Terminal Board for Phone Lead Filter L-303A&B	Similar to E-329 except mounting hole on opposite side		17-P-5 Type FBE	1		K-871374-502													E-330 (Qty/Eq. 1)
E-331	Terminal Board for Input Meter Filter Choke L-308A&B	Laminated, phenolic, insulated material, 1/16" thick, 1-1/4" long, 1" wide, 4 terminals 0.128" dia., center hole 0.316" O.D.		17-P-5 Type FBE	1		M-421256-503													E-331 (Qty/Eq. 1)

* For Contract NXss-17001 (RBB-2/RBC-2)
↓ For Contract NXsr-39262 (RBB-2/RBC-2)
⊕ When M-301,302,303 are supplied by Weston, pack 2 of terminal and 2 of lockwasher and 3 of screw with each meter.

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION
FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

IF/AF UNIT (Continued)

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT RBB RBB-1 RBB-2 *	EQUIPMENT RBC RBC-1 RBC-2 *	EQUIPMENT RBB-2 ↓	EQUIPMENT RBC-2 ↓	BASE RBB	BASE RBC	BASE RBB-1 RBB-2 *	BASE RBC-1 RBC-2 *	TENDER RBB-2 ↓	TENDER RBC-2 ↓	STOCK RBB-2 ↓	STOCK RBC-2 ↓	ALL SYMBOL DESIGNATIONS INVOLVED
		MISCELLANEOUS ELECTRICAL PARTS (Continued)																		
E-332	Terminal Used With Westinghouse Meters M-301,302,303	Brass, 7/8" long, 0.025" thick, 0.257" dia. hole			521	Cat.#2053 Modified	K-818337-5											↗	↗	E-332,334 (Qty/Eq. 9)
E-333	CW Oscillator	Assembly consists of: A-305, E-318, 323,324,325, 326, H-306, T-306 and X-304			1		P-721038-501													E-333 (Qty/Eq. 1)
E-334	Terminal for Wiring Material (W-324)	Same as E-332																		
E-335	Contacts for Octal Sockets X-301,302,303, 304,305,306,307,308, 309,310,311	Same as E-136																		
E-336	Round Panel Knobs Used for Removal of Chassis Provided on Front Panel	Same as E-103																		
		HARDWARE																		
H-301	Lockwasher Used With Weston Meters M-301, 302,303	Screw size #8, stainless steel, 0.172" I.D., 0.266" O.D., 0.045" thick, non-linking type			39		K-59048-32											⊕	⊕	H-301 (Qty/Eq. 6)
H-302	Lockwasher Used With Westinghouse Meters M-301,302,303	Screw size 1/4", stainless steel, 0.262" I.D. 0.450" O.D., 0.062" thick, non-linking type			38		K-59048-35											↗	↗	H-302 (Qty/Eq. 6)
H-303	Screw Used With Weston Meters M-301,302,303	Brass, round head machine type, 0.202" O.D. one end, 0.112" O.D. other end, threaded #4-40 threads for 1/2"			39		K-57454-63											⊕	⊕	H-303 (Qty/Eq. 9)
H-304	Screw Used With Westinghouse Meters M-301,302,303	Brass, round head machine type, 0.202" O.D., one end, 0.112" O.D. other end, threaded #4-40 threads for 5/8"			38		K-57454-65											↗	↗	H-304 (Qty/Eq. 9)
H-305	Speed Nut for IF-AF Unit	Special aircraft spring steel, 3/4" x 29/32" x .1/64" thick for 1/2" dia. stud			679	877-M1 Type 1	K-881133-1											1	1	H-305 (Qty/Eq. 1)
H-306	Speed Nut for CW Oscillator (E-333)	Special aircraft spring steel, 1" x 0.687" x 0.016" thick for 3/8" dia. stud			679	1783-M1 Type 1	K-881133-2											1	1	H-306 (Qty/Eq. 1)

* For Contract NXss-17001 (RBB-2/RBC-2)
↓ For Contract NXsr-39262 (RBB-2/RBC-2)

⊕ When M-301,302,303 are supplied by Weston, pack 2 of terminal and 2 of lockwasher and 3 of screw with each meter.
↗ When M-301,302,303 are supplied by Westinghouse pack 2 of terminal and 2 of lockwasher and 3 of screw with each meter.

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION
FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

IF/AF UNIT (Continued)

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT RBB RBB-1 RBB-2*	EQUIPMENT RBC RBC-1 RBC-2*	EQUIPMENT RBB-2↓	EQUIPMENT RBC-2↓	BASE RBB	BASE RBC	BASE RBB-1 RBB-2*	BASE RBC-1 RBC-2*	TENDER RBB-2↓	TENDER RBC-2↓	STOCK RBB-2↓	STOCK RBC-2↓	ALL SYMBOL DESIGNATIONS INVOLVED
				INDUCTORS																
I-301A	Dial Lamp	Same as I-101A																		
I-301B	Socket for I-301A	Black nickel finish, ruby colored jewel, frosted inside only, miniature bayonet base, mounted in a 11/16" dia. hole, bushing 2 keyways inside, 1-27/32" overall length			15	Type #50	K-856863-5			1	1					1	1	1	1	I-301B (Qty/Eq. 1)
				JACKS																
J-301	Power Receptacle	9 contacts, 1-5/8" O.D., 4 holes 0.170" dia. and 0.279" dia. x 82° CSK on a 2" square flange near threaded end, 1-3/4"-18 threads for approx. 13/16", 1-5/16" overall length	℧AN-3102-28-4S	†AN-9534	6		K-866555-2			1	1					1	1	2	2	J-301 (Qty/Eq. 1)
J-302	Output Receptacle	3 silver plated contacts, female, not grounded	-49161	SP-PC3F	6		K-871680-1													J-302 (Qty/Eq. 1)
J-303	Phone Jack	Single circuit, 4 contact springs, make-break, 3 washers, 1/32", 3/32" and 5/32" thickness for mounting screw, 3-1/8" max. length	-49021A	RE 13A 481	28		K-833982-1			1	1					1	1	2	2	J-303 (Qty/Eq. 1)
				REACTORS																
L-301-1	Band Pass Filter for RBB-2	Consists of 7 iron core reactors, 9 capacitors and 1 resistor encased in metal container 3-13/16" O.D., 4-1/2" high, compound and oil hermetically sealed, all parts internally wired and leads brought out to external terminals 2 and 3, d-c resistance between 1 and 3 is 450 ohms, between 1 and 2, 895 ohms and between 2 and 3, 445 ohms, peak frequency 1000 cycles ±5%, band width at 6 db below peak 200 cycles min., at 40 db min. below peak 450 cycles max. response below 725 cycles and above 1275 cycles 40 db min. below peak See Winding data, Figure 5-11 Dwg. No.439737	-53090		1		K-901008-501			1		13		2		1			5	L-301-1 (Qty/Eq. 1)

* For Contract NXss-17001 (RBB-2/RBC-2) ℧ Army-Navy Type Number.
↓ For Contract NXsr-39262 (RBB-2/RBC-2) † Army-Navy Specification.

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION
FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

IF/AF UNIT (Continued)

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT RBB RBB-1 RBB-2*	EQUIPMENT RBC RBC-1 RBC-2*	EQUIPMENT RBB-2↓	EQUIPMENT RBC-2↓	BASE RBB	BASE RBC	BASE RBB-1 RBB-2*	BASE RBC-1 RBC-2*	TENDER RBB-2↓	TENDER RBC-2↓	STOCK RBB-2↓	STOCK RBC-2↓	ALL SYMBOL DESIGNATIONS INVOLVED
		REACTORS (Continued)																		
L-301-2	Band Pass Filter for RBC-2	Similar to L-301-1, metal containers and external appearance identical except this unit consists of 5 reactors, 5 capacitors and 2 resistors internally wired, d-c resistance between terminals 1 and 3, 718 ohms, 2 and 3, 15,245 ohms, 1 and 2, 15,962 ohms, peak frequency 1000 cycles ±5%, band width at 6 db below peak 300 cycles min., band width at 40 db below peak 1000 cycles max., response below 450 cycles and above 1550 cycles 40 db min. below peak See Winding data, Figure 5-12 Dwg. No.439738	-53091		1		K-901009-501				1		13		2		1		5	L-301-2 (Qty/Eq. 1)
L-302	Not Used																			
L-303A B	Phone Lead Filter Phone Lead Filter	Assembly consists of: one coil form over which are wound two coils in bifilar, d-c resistance 0.27 ohm, inductance 3.95 microhenries, frequency 0.500 to 27.0 mc. start and finish leads soldered to terminals on E-329,330 at each end of coil form See Winding data, Figure 5-13 Dwg. No.439741			1		K-865413-501			1	1	7	7	1	1	1	1	5	5	L-303A&B (Qty/Eq. 1)
L-304A B	Output Plug Filter Output Plug Filter (Part of Z-301)	Assembly consists of: coil form over which are wound 2 coils in bifilar, d-c resistance 0.25 ohm, inductance 3.30 microhenries, frequency 0.500 to 27.0 mc, start and finish leads soldered to terminals on E-327,328 located at each end of coil form See Winding data, Figure 5-14 Dwg. No.893107			1		M-421251-502			1	1	7	7	1	1	1	1	5	5	L-304A&B (Qty/Eq. 1)
L-305	Voltmeter Filter Choke	Assembly consists of: one coil form over which is wound one coil, d-c resistance 0.27 ohm, inductance 5.70 microhenries, frequency 0.500 to 27.0 mc, includes E-326 See Winding data, Figure 5-15 Dwg. No.439706			1		K-865458-501			1	1	7	7	1	1	1	1	5	5	L-305 (Qty/Eq. 1)
L-306	17 Volt Supply Filter Choke	Assembly consists of: one coil form over which is wound one coil, d-c resistance 0.019 ohm, inductance 14.95 microhenries, current at which choke operates 0.6 amp. normal, 1.20 amps. max. encased in a metal shield can See Winding data, Figure 5-16 Dwg. No.893105			1		K-900676-504			1	1	7	7	1	1	2	2	10	10	L-306,307 (Qty/Eq. 2)

* *For Contract NXss-17001 (RBB-2/RBC-2)*
↓ *For Contract NXsr-39262 (RBB-2/RBC-2)*

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION
FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

IF/AF UNIT (Continued)

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT RBB-1 RBB-2 *	EQUIPMENT RBC-1 RBC-2 *	EQUIPMENT RBB-2 ↓	EQUIPMENT RBC-2 ↓	BASE RBB	BASE RBC	BASE RBB-1 RBB-2 *	BASE RBC-1 RBC-2 *	TENDER RBB-2 ↓	TENDER RBC-2 ↓	STOCK RBB-2 ↓	STOCK RBC-2 ↓	ALL SYMBOL DESIGNATIONS INVOLVED
		REACTORS (Continued)																		
L-307	17 Volt Filament Supply Filter Choke	Same as L-306 with operating current of choke 1.55 amps. normal, 3.10 amps. max.																		
L-308A B	Input Meter Filter Choke Input Meter Filter Choke (Part of Z-302)	Assembly consists of: one coil form over whichare wound two coils forming an inner and outer winding, d-c resistance of inner winding 0.27 ohm, outer winding 0.29 ohm, inductance of inner winding 5.65 microhenries, outer winding 6.50 microhenries, frequency 0.500 to 27.0 mc, includes E-331 See Winding data, Figure 5-17 Dwg. No.439740			1		K-865458-502			1	1	7	7	1	1	1	1	5	5	L-308A&B (Qty/Eq. 1)
		METERS																		
M-301	D.C. Voltmeter	Flush type, wide flange, full scale 0-250, d-c resistance 200 ohms per volt, 2.21" body O.D., 2.695" mounting O.D., 2.67" overall length	δMR25Y300 DCVV -22354	↗C39.2-1943	38 39	BX-33 Model 506	K-883928-2 δM-421740-2					25	25	4	4			1	1	M-301 (Qty/Eq. 1)
M-302	Input Meter	Direct current, flush type, wide flange, full scale 0-1 v, d-c resistance 1000 ohms per volt decibel calibration 0-120, 2.21" body O.D., 2.695" mounting O.D., 2.67" overall length Calibration for meter scale Decibel Calibration — Volts 0 — .00 10 — .10 20 — .28 30 — .41 40 — .52 50 — .62 60 — .70 70 — .77 80 — .84 90 — .89 100 — .94 110 — .975 120 — 1.00	-22355	↗C39.2-1943	38 39	BX-33 Model 506	M-427798-1 δM-421740-1					25	25	4	4			1	1	M-302 (Qty/Eq. 1)
M-303	Output Meter	DB, flush type, wide flange, metal case, full scale deflection, -10 to +5, anti-glare glass	δMR25Y126 -22353	↗C39.2-1943	38 39	BX-33 Model 506	K-883928-1 δK-864314-1					25	25	4	4			1	1	M-303 (Qty/Eq. 1)

* For Contract NXss-17001 (RBB-2/RBC-2)
↓ For Contract NXsr-39262 (RBB-2/RBC-2)
δ American War Standard Type Number.
↗ American War Standard Specification.

δ Navy Type No. -22354, -22355 & -22353 superseded by A.W.S. Type No. on later models.
For replacement use R.C.A. Dwg. No. M-421740-2, M-421740-1 & K-864314-1.

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION
FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

IF/AF UNIT (Continued)

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT RBB RBB-1 RBB-2 *	EQUIPMENT RBC RBC-1 RBC-2 *	EQUIPMENT RBB-2 ↓	EQUIPMENT RBC-2 ↓	BASE RBB	BASE RBC	BASE RBB-1 RBB-2 *	BASE RBC-1 RBC-2 *	TENDER RBB-2 ↓	TENDER RBC-2 ↓	STOCK RBB-2 ↓	STOCK RBC-2 ↓	ALL SYMBOL DESIGNATIONS INVOLVED
		MISCELLANEOUS MECHANICAL PARTS																		
0-301	Grounding Spring for Power Receptacle J-301	Phosphor bronze, 0.010" thick, 2-13/32" square, 1-11/16" dia. hole, 4 mounting holes, 0.173" dia., 20 slots 1/16" wide			1		K-866512-1			1	1					2	2	5	5	0-301 (Qty/Eq. 1)
0-302	Shaft Connecting "Frequency Vernier" Knob E-305 to Coupling 0-305	Stainless steel, 1-13/16" long, 5/16" from end to beginning of indent, 0.249" O.D., 1/32" x 45° chamfer at both ends		46-S-18 Grade 7 Type D	1		K-866625-1													0-302 (Qty/Eq. 1)
0-303	Grounding Spring for Output Receptacle J-302	Phosphor bronze, 0.0159" thick, 1-5/8" O.D., 27/32" I.D., 12 equally spaced slots, 1/16" wide, 5/16" deep			1		K-866544-1			1	1					2	2	5	5	0-303 (Qty/Eq. 1)
0-304	Receiver Chassis Safety Spring	Same as 0-102																		
0-305	Coupling for Shaft 0-307 with C-301 and 0-302	Brass, nickel plated, 1-1/16" O.D., 1/2" I.D., 2 holes tapped #8-32 threads, disc 0.022" thick with 1/2" dia. hole, 11/16" long			483	Cat. # TX-10	K-866618-2									1	1	2	2	0-305 (Qty/Eq. 2)
0-306	Coupling for Shaft Connecting Switch S-308	Stainless steel, 0.50" O.D., 0.250" I.D., 2 holes tapped #8-32 threads, 1" long		46-S-18 Grade 7 Type D	1		K-866658-1									1	1	1	1	0-306 (Qty/Eq. 1)
0-307	Shaft for Connecting C-301 to Coupling 0-305	Stainless steel, 7-3/8" long, 0.249" O.D., shoulder 6-5/8" long starting 3/8" from end, 1/32" x 45° chamfer at both ends		46-S-18 Grade 7 Type D	1		K-866625-3													0-307 (Qty/Eq. 1)

* For Contract NXss-17001 (RBB-2/RBC-2)
↓ For Contract NXsr-39262 (RBB-2/RBC-2)

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION
FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

IF/AF UNIT (Continued)

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT RBB RBB-1 RBB-2 *	EQUIPMENT RBC RBC-1 RBC-2 *	EQUIPMENT RBB-2 ↓	EQUIPMENT RBC-2 ↓	BASE RBB	BASE RBC	BASE RBB-1 RBB-2 *	BASE RBC-1 RBC-2 *	TENDER RBB-2 ↓	TENDER RBC-2 ↓	STOCK RBB-2 ↓	STOCK RBC-2 ↓	ALL SYMBOL DESIGNATIONS INVOLVED
						PLUGS														
P-301	Output Plug Connector	3 prong, male type, not grounded, polarized, brass shell, with silver plated contact pins, wire ends hot tin dipped, 1-7/16" body length, 11/16" O.D. guard, 7/8" long, 9/32" I.D.	-49160		6	MC3M	K-871681-1			1	1					1	1	2	2	P-301 (Qty/Eq. 1)
P-301A	Output Plug Adapter (Interchangeable with P-301)	Assembly consists of: clamp, ferrule, bushing, laminated insulator and brass connector 1.625" long, 0.875" O.D., 0.375" I.D.	-49509		1		MX-247930-501			1	1					1	1	2	2	P-301A (Qty/Eq. 1)
						RESISTORS														
R-301	1st I-F "Medium" Damping Resistor	Fixed, wire wound, pigtail, 10 ohms ±10%, 1/2 watt, insulated	-63678-10		21	BW-1/2	K-867970-338	2	2	2	2					6	6	10	10	R-301,302, 303,304 (Qty/Eq. 4)
R-302	2nd I-F "Medium" Damping Resistor	Same as R-301	-63678-10																	
R-303	3rd I-F "Medium" Damping Resistor	Same as R-301	-63678-10																	
R-304	Diode "Medium" Damping Resistor	Same as R-301	-63678-10																	
R-305	1st I-F "Broad" Damping Resistor	Fixed, wire wound, pigtail, 22 ohms ±10%, 1/2 watt, insulated	-63678-10		21	BW-1/2	K-867970-342	2	2	2	2					6	6	10	10	R-305,306, 307,308 (Qty/Eq. 4)
R-306	2nd I-F "Broad" Damping Resistor	Same as R-305	-63678-10																	
R-307	3rd I-F "Broad" Damping Resistor	Same as R-305	-63678-10																	
R-308	Diode "Broad" Damping Resistor	Same as R-305	-63678-10																	
R-309	1st I-F Cathode Bias Resistor (Part of E-307)	Fixed, composition, pigtail, 680 ohms ±10%, 1/2 watt, insulated	-63360		21	BT-1/2	K-850981-60	1	1	1	1					3	3	5	5	R-309,312, (Qty/Eq. 2)

* *For Contract NXss-17001 (RBB-2/RBC-2)*
↓ *For Contract NXsr-39262 (RBB-2/RBC-2)*

RESTRICTED

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION
FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

IF/AF UNIT (Continued)

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT				BASE				TENDER		STOCK		ALL SYMBOL DESIGNATIONS INVOLVED
								RBB RBB-1 RBB-2 *	RBC RBC-1 RBC-2 *	RBB-2 ↓	RBC-2 ↓	RBB	RBC	RBB-1 RBB-2 *	RBC-1 RBC-2 *	RBB-2 ↓	RBC-2 ↓	RBB-2 ↓	RBC-2 ↓	
		RESISTORS (Continued)																		
R-310	2nd I-F Cathode Bias Resistor (Part of E-307)	Fixed, composition, pigtail, 470 ohms ±10%, 1/2 watt, insulated	-63360		21	BT-1/2	K-850981-58	1	1	1	1					3	3	5	5	R-310,311 (Qty/Eq. 2)
R-311	3rd I-F Cathode Bias Resistor (Part of E-303)	Same as R-310	-63360																	
R-312	Output Cathode Bias Resistor (Part of E-311)	Same as R-309	-63360																	
R-313	2nd A-F Cathode Bias Resistor (Part of E-307)	Same as R-104	-63360																	
R-314	1st A-F Cathode Bias Resistor (Part of E-307)	Same as R-104	-63360																	
R-315	Output Limiter Amplifier Cathode Bias Resistor (Part of E-307)	Fixed, composition, pigtail, 3900 ohms ±10%, 1/2 watt, insulated	-63360		21	BT-1/2	K-850981-69	1	1	1	1					2	2	3	3	R-315 (Qty/Eq. 1)
R-316	1st Detector Plate Resistor (Part of E-307)	Same as R-105	-63360																	
R-317	AVC Filter A-F Resistor (Part of E-315)	Same as R-216	-63360																	
R-318	2nd I-F Plate Resistor (Part of E-307)	Same as R-105	-63360																	
R-319	3rd I-F Plate Resistor (Part of E-303)	Same as R-105	-63360																	
R-320	Voltage Divider Resistor (Part of E-309)	Fixed, composition, pigtail, 39,000 ohms ±10%, 1/2 watt, insulated	-63360		21	BT-1/2	K-850981-81	1	1	1	1					2	2	3	3	R-320 (Qty/Eq. 1)
R-321	Tuning Circuit Potentiometer	Variable, composition, 3000 ohms ±15%, 1/2 watt, linear curve, round shaft 3/4" long x 0.250" dia.	-631094		21 36 149	CSM-Sealed LP 35	P-721104-1	1	1	1	1					3	3	5	5	R-321 (Qty/Eq. 1)

* For Contract NXss-17001 (RBB-2/RBC-2)
↓ For Contract NXsr-39262 (RBB-2/RBC-2)

RESTRICTED

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

IF/AF UNIT (Continued)

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT				BASE				TENDER		STOCK		ALL SYMBOL DESIGNATIONS INVOLVED
								RBB RBB-1 RBB-2*	RBC RBC-1 RBC-2*	RBB-2↓	RBC-2↓	RBB	RBC	RBB-1 RBB-2*	RBC-1 RBC-2*	RBB-2↓	RBC-2↓	RBB-2↓	RBC-2↓	
		RESISTORS (Continued)																		
R-322	3rd I-F Screen Resistor (Part of E-303)	Same as R-109	-63360																	
R-323	CW Oscillator Supply Resistor (Part of E-316)	Same as R-215	-63360																	
R-324	1st A-F Plate Resistor (Part of E-307)	Same as R-215	-63360																	
R-325	Voltage Divider Resistor (Part of E-307)	Fixed, composition, pigtail, 6800 ohms ±10%, 1/2 watt, insulated	-63360		21	BT-1/2	K-850981-72	1	1	1	1					2	2	3	3	R-325 (Qtv/Eq. 1)
R-326	2nd I-F Screen Resistor (Part of E-307)	Same as R-215	-63360																	
R-327	Voltage Divider Resistor (Part of E-309)	Fixed, composition, pigtail, 10,000 ohms ±10%, 2 watts, insulated	-63474		21	BT-2	K-844302-74	1	1	1	1					2	2	3	3	R-327 (Qty/Eq. 1)
R-328	Voltage Divider Resistor (Part of E-303)	Fixed, composition, pigtail, 22,000 ohms ±10%, 1/2 watt, insulated	-63360		21	BT-1/2	K-850981-78	2	2	2	2					5	5	8	8	R-328, 334, 367 (Qty/Eq. 3)
R-329	Output Meter Resistor (Part of W-324)	Fixed, composition, pigtail, 1100 ohms ±5%, 1/2 watt, insulated	-63355		21	BT-1/2	K-850981-160	1	1	1	1					2	2	3	3	R-329 (Qty/Eq. 1)
R-330	Output Meter Resistor (Part of W-324)	Fixed, composition, pigtail, 3600 ohms ±5%, 1/2 watt, insulated	-63355		21	BT-1/2	K-850981-172	1	1	1	1					2	2	3	3	R-330 (Qty/Eq. 1)
R-331	Voltage Divider Output Limiter Resistor (Part of E-311)	Same as R-128	-63360																	
R-332	CW Oscillator Grid Resistor	Fixed, composition, pigtail, 68,000 ohms ±10%, 1/2 watt, insulated	-63360		21	BT-1/2	K-850981-84	1	1	1	1					2	2	3	3	R-332 (Qty/Eq. 1)
R-333	Output Meter Resistor (Part of W-324)	Fixed, composition, pigtail, 12,000 ohms ±5%, 1/2 watt, insulated	-63355		21	BT-1/2	K-850981-185	1	1	1	1					2	2	3	3	R-333 (Qty/Eq. 1)
R-334	Silencer Voltage Divider Resistor (Part of E-311)	Same as R-328	-63360																	

* For Contract NXss-17001 (RBB-2/RBC-2)
↓ For Contract NXsr-39262 (RBB-2/RBC-2)

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION
FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

IF/AF UNIT (Continued)

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT RBB RBB-1 RBB-2 *	EQUIPMENT RBC RBC-1 RBC-2 *	EQUIPMENT RBB-2 ↓	EQUIPMENT RBC-2 ↓	BASE RBB	BASE RBC	BASE RBB-1 RBB-2 *	BASE RBC-1 RBC-2 *	TENDER RBB-2 ↓	TENDER RBC-2 ↓	STOCK RBB-2 ↓	STOCK RBC-2 ↓	ALL SYMBOL DESIGNATIONS INVOLVED
			RESISTORS (Continued)																	
R-335	1st I-F Grid Resistor (Part of E-307)	Fixed, composition, pigtail, 220,000 ohms ±10%, 1/2 watt, insulated	-63360		21	BT-1/2	K-850981-90	3	3	3	3					8	8	13	13	R-335,343, 344,366,370 (Qty/Eq. 5)
R-336	2nd I-F Grid Resistor (Part of E-307)	Same as R-109	-63360																	
R-337	3rd I-F Grid Resistor	Fixed, composition, pigtail, 1.5 megohms ±10%, 1/2 watt, insulated	-63360		21	BT-1/2	K-850981-100	1	1	1	1					2	2	3	3	R-337 (Qty/Eq. 1)
R-338	AVC Voltage Divider Resistor (Part of E-315)	Fixed, composition, pigtail, 180,000 ohms ±10%, 1/2 watt, insulated	-63360		21	BT-1/2	K-850981-89	1	1	1	1					2	2	3	3	R-338 (Qty/Eq. 1)
R-339	1st A-F Plate Resistor (Part of E-307)	Same as R-109	-63360																	
R-340	Silencer Cathode Resistor (Part of E-306)	Same as R-216	-63360																	
R-341	Silencer Plate Resistor (Part of E-306)	Same as R-216	-63360																	
R-342	Output Meter Divider Resistor (Part of W-324)	Fixed, composition, pigtail, 560 ohms ±5%, 1/2 watt, insulated	-63355		21	BT-1/2	K-850981-153	1	1	1	1					2	2	3	3	R-342 (Qty/Eq. 1)
R-343	Inverse Feedback Resistor (Part of E-307)	Same as R-335	-63360																	
R-344	2nd A-F Plate Resistor (Part of E-307)	Same as R-335	-63360																	
R-345	Noise Suppressor Divider Resistor (Part of E-315)	Same as R-216	-63360																	
R-346	CW Oscillator Screen Resistor (Part of E-316)	Fixed, composition, pigtail, 120,000 ohms ±5%, 1/2 watt, insulated	-63355		21	BT-1/2	K-850981-209	1	1	1	1					2	2	3	3	R-346 (Qty/Eq. 1)

* For Contract NXss-17001 (RBB-2/RBC-2)
↓ For Contract NXsr-39262 (RBB-2/RBC-2)

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION
FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

IF/AF UNIT (Continued)

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT				BASE				TENDER		STOCK		ALL SYMBOL DESIGNATIONS INVOLVED
								RBB RBB-1 RBB-2 *	RBC RBC-1 RBC-2 *	RBB-2 ↓	RBC-2 ↓	RBB	RBC	RBB-1 RBB-2 *	RBC-1 RBC-2 *	RBB-2 ↓	RBC-2 ↓	RBB-2 ↓	RBC-2 ↓	
			RESISTORS (Continued)																	
R-347	Diode Filter Resistor (Part of E-315)	Fixed, composition, pigtail, 270,000 ohms ±10%, 1/2 watt, insulated	-63360		21	BT-1/2	K-850981-91	1	1	1	1					3	3	5	5	R-347,348 (Qty/Eq. 2)
R-348	Diode Load Resistor (Part of E-315)	Same as R-347	-63360																	
R-349	1st A-F Screen Resistor (Part of E-307)	Fixed, composition, pigtail, 470,000 ohms ±10%, 1/2 watt, insulated	-63360		21	BT-1/2	K-850981-94	3	3	3	3					8	8	13	13	R-349,350, 351,352, 355 (Qty/Eq. 5)
R-350	Output Limiter Amplifier Plate Resistor (Part of E-307)	Same as R-349	-63360																	
R-351	Silencer Amplifier Plate Resistor (Part of W-324)	Same as R-349	-63360																	
R-352	2nd A-F Screen Resistor (Part of E-307)	Same as R-349	-63360																	
R-353	CW Oscillator Plate Resistor	Fixed, composition, pigtail, 27,000 ohms ±5%, 1/2 watt, insulated	-63355		21	BT-1/2	K-850981-193	1	1	1	1					2	2	3	3	R-353 (Qty/Eq. 1)
R-354	AVC Filter Resistor (Part of E-315)	Fixed, composition, pigtail, 390,000 ohms ±10%, 1/2 watt, insulated	-63360		21	BT-1/2	K-850981-93	1	1	1	1					2	2	3	3	R-354 (Qty/Eq. 1)
R-355	AVC Load Resistor (Part of E-315)	Same as R-349	-63360																	
R-356	1st A-F Grid Resistor (Part of E-307)	Fixed, composition, pigtail, 2.2 megohms ±10%, 1/2 watt, insulated	-63360		21	BT-1/2	K-850981-102	2	2	2	2					5	5	8	8	R-356,358, 360 (Qty/Eq. 3)
R-357	Noise Suppressor Divider Resistor (Part of W-324)	Fixed, composition, pigtail, 820,000 ohms ±10%, 1/2 watt, insulated	-63360		21	BT-1/2	K-850981-97	1	1	1	1					2	2	3	3	R-357 (Qty/Eq. 1)
R-358	Silencer Grid Resistor (Part of E-315)	Same as R-356	-63360																	
R-359	Output Amplifier Grid Resistor (Part of E-307)	Same as R-216	-63360																	

* For Contract NXss-17001 (RBB-2/RBC-2)
↓ For Contract NXsr-39262 (RBB-2/RBC-2)

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION
FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

IF AF UNIT (Continued)

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT RBB RBB-1 RBB-2*	EQUIPMENT RBC RBC-1 RBC-2*	EQUIPMENT RBB-2↓	EQUIPMENT RBC-2↓	BASE RBB	BASE RBC	BASE RBB-1 RBB-2*	BASE RBC-1 RBC-2*	TENDER RBB-2↓	TENDER RBC-2↓	STOCK RBB-2↓	STOCK RBC-2↓	ALL SYMBOL DESIGNATIONS INVOLVED
		RESISTORS (Continued)																		
R-360	Output Limiter Amplifier Screen Resistor (Part of E-307)	Same as R-356	-63360																	
R-361A B	Manual Gain Control Potentiometer	Dual, front unit: linear, 0-63% rotation 2000 ohms ±10%, linear 63-100% rotation 3000 ohms ±10%, max. current 15 ma; rear unit: linear, 0-63% rotation 5000 ohms ±10%, 63-100% rotation not to exceed 50 ohms ±10%, max. current 20 ma, each section rated at 2 watts, round shaft 7/8" long x 0.250" dia.	-631092	RE 13A 492B	149		K-866569-1	1	1	1	1					3	3	5	5	R-361A&B (Qty/Eq. 1)
R-362	Output Limiter Gain Set Control Potentiometer (Part of E-321)	Composition, variable, 1/2 watt, 100,000 ohms linear up to 75% rotation, remaining 25% is 400,000 ohms linear, overall resistance 0.5 megohm ±15%, screwdriver shaft 5/8" long x 0.250" dia.	-631097		21 36 149	CSM-Sealed LP 35	P-721104-4	1	1	1	1					3	3	5	5	R-362 (Qty/Eq. 1)
R-363A B	AVC Level Control Potentiometer Output Limiter Level Control Potentiometer	Dual, front unit, 25,000 ohms ±15%, linear, normal current 3.0 ma, rear unit, 1.0 megohm ±15%, tapered, normal current 0.2 ma shaft 15/16" long x 0.250" dia.	-631098		21		K-864364-1	1	1	1	1					3	3	5	5	R-363A&B (Qty/Eq. 1)
R-364	Band Pass Filter Padding Adjustment Potentiometer (Part of E-321)	Composition, variable, 0.1 megohm ±15%, 1/2 watt, linear curve, screwdriver shaft 5/8" long x 0.250" dia.	-631142		21 36 149	CSM-Sealed LP 35	P-721104-5	1	1	1	1					3	3	5	5	R-364 (Qty/Eq. 1)
R-365	Diode 2nd Detector Resistor	Fixed, composition, pigtail, 15,000 ohms ±5%, 1/2 watt, insulated	-63355		21	BT-1/2	K-850981-187	1	1	1	1					2	2	3	3	R-365 (Qty/Eq. 1)
R-366	AVC Filter Resistor (Part of E-309)	Same as R-335	-63360																	
R-367	2nd A-F Feedback Resistor (Part of E-321)	Same as R-328	-63360																	
R-368	Tuning Meter Shunt Potentiometer (Part of E-321)	Composition, variable, 25,000 ohms ±15%, 1/2 watt, linear curve, screwdriver shaft 5/8" long x 0.250" dia.	-631095		21 36 149	CSM-Sealed LP 35	P-721104-2	1	1	1	1					3	3	5	5	R-368 (Qty/Eq. 1)

* For Contract NXss-17001 (RBB-2/RBC-2)
↓ For Contract NXsr-39262 (RBB-2/RBC-2)

RESTRICTED

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION
FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

IF/AF UNIT (Continued)

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT RBB RBB-1 RBB-2*	EQUIPMENT RBC RBC-1 RBC-2*	EQUIPMENT RBB-2↓	EQUIPMENT RBC-2↓	BASE RBB	BASE RBC	BASE RBB-1 RBB-2*	BASE RBC-1 RBC-2*	TENDER RBB-2↓	TENDER RBC-2↓	STOCK RBB-2↓	STOCK RBC-2↓	ALL SYMBOL DESIGNATIONS INVOLVED
				RESISTORS (Continued)																
R-369	Silencer Control Potentiometer	Composition, variable, 0.1 megohm ±15%, 1/2 watt, linear curve, round shaft 15/16" long, x 0.250" dia.	-631096		21 36 149	CSM-Sealed LP 35	P-721104-3	1	1	1	1					3	3	5	5	R-369 (Qty/Eq. 1)
R-370	Silencer Screen Resistor (Part of E-311)	Same as R-335	-63360																	
R-371	Audio Frequency AVC Filter Resistor (Part of E-307)	Same as R-216	-63360																	
R-372	CW Oscillator Cathode Resistor	Fixed, composition, pigtail, 2400 ohms ±5%, 1/2 watt, insulated	-63355		21	BT-1/2	K-850981-168	1	1	1	1					2	2	3	3	R-372 (Qty/Eq. 1)
R-373	CW Oscillator Grid Resistor	Same as R-101	-63670-10																	
R-374	CW Oscillator Cathode Resistor	Same as R-215	-63360																	
				SWITCHES																
S-301	Power "ON", "OFF" Switch	Toggle type, S.P.S.T., silver plated contacts, rating 1 amp. at 250 v d.c., 3 amps. at 125 v d.c.	-24000		7	#20994-ET	M-420278-1	1	1	1	1					1	1	1	1	S-301 (Qty/Eq. 1)
S-302	Output Meter Switch	Single wafer type, 2 circuit 5 position with spring return from 1st to 2nd position, ceramic wafer, all terminals and contacts silver plated, contacts silver faced, rotor blades solid silver, stainless steel shaft 3/4" long x 0.250" dia.			31	22174-QH	M-421042-1			1	1					1	1	1	1	S-302 (Qty/Eq. 1)
S-303	Noise Suppressor "ON", "OFF" Switch	Single wafer type, S.P.D.T., rotary, ceramic wafer terminals and contact switch silver plated, contacts silver faced, rotor blades solid silver, stainless steel shaft, 13/16" long x 0.250" dia.			31	HC	M-421955-1			1	1					1	1	1	1	S-303 (Qty/Eq. 1)
S-304	Reception Transfer Switch	Wafer type, 7 ceramic wafers, 2 pole, 5 position, terminals and contacts silver plated, contacts silver faced, rotor blades solid silver, stainless steel shaft 13/16" long x 0.250" dia.			31	HC	M-421956-1			1	1					1	1	1	1	S-304 (Qty/Eq. 1)

* For Contract NXss-17001 (RBB-2/RBC-2)
↓ For Contract NXsr-39262 (RBB-2/RBC-2)

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION
FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

IF/AF UNIT (Continued)

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT RBB RBB-1 RBB-2 *	EQUIPMENT RBC RBC-1 RBC-2 *	EQUIPMENT RBB-2 ↓	EQUIPMENT RBC-2 ↓	BASE RBB	BASE RBC	BASE RBB-1 RBB-2 *	BASE RBC-1 RBC-2 *	TENDER RBB-2 ↓	TENDER RBC-2 ↓	STOCK RBB-2 ↓	STOCK RBC-2 ↓	ALL SYMBOL DESIGNATIONS INVOLVED
		SWITCHES (Continued)																		
S-305	Audio Select Switch	Toggle type, D.P.D.T., laminated insulation, phenolic, rating 1 amp. at 250 v d.c., 3 amps. at 125 v d.c.	-24003		7	#20905-EP	M-420278-4	1	1	1	1					1	1	1	1	S-305 (Qty/Eq. 1)
S-306	Radio Select Switch	Wafer type, 2 pole, 3 position, ceramic wafer, contact spring silver alloy, rotor blades solid silver, terminal ends hot tin dipped ganged with S-307,308 rotor blades facing rear end of entire switch assembly, stainless steel shaft 13/16" long x 0.250" dia.,			31	HC	M-421722-1			1	1					1	1	2	2	S-306,307 (Qty/Eq. 2)
S-307	Radio Select Switch	Same as S-306, ganged with S-306,308																		
S-308	Radio Select Switch	Wafer type, 2 pole, 3 position, ceramic wafer, contact spring silver alloy, rotor blades solid silver, terminal ends hot tin dipped ganged with S-306,307, rotor blades facing front end of entire switch assembly, stainless steel shaft 13/16" long x 0.250" dia.,			31	HC	M-421722-4			1	1					1	1	1	1	S-308 (Qty/Eq. 1)
		TRANSFORMERS																		
T-301	Output Transformer	Assembly consists of: one primary, 3 secondary windings, electrostatic shield wound over primary; electrostatic shield wound over secondary #1, assembly encased in metal container approx. 2-1/2" dia., 3-1/4" high, oil hermetically sealed Hi-pot: 1500 v r.m.s. applied for 15 seconds from each terminal to case Primary impedance: 3 v, 60 cycles a.c. and 0.018 amp. d.c., 5000 ohms min. See Winding data, Figure 5-45 Dwg. No.439713	-30789		1		K-901010-501	1	1	1	1					2	2	3	3	T-301 (Qty/Eq. 1)

* For Contract NXss-17001 (RBB-2/RBC-2)
↓ For Contract NXsr-39262 (RBB-2/RBC-2)

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION
FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

IF/AF UNIT (Continued)

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT RBB RBB-1 RBB-2 *	EQUIPMENT RBC RBC-1 RBC-2 *	EQUIPMENT RBB-2 ↓	EQUIPMENT RBC-2 ↓	BASE RBB	BASE RBC	BASE RBB-1 RBB-2 *	BASE RBC-1 RBC-2 *	TENDER RBB-2 ↓	TENDER RBC-2 ↓	STOCK RBB-2 ↓	STOCK RBC-2 ↓	ALL SYMBOL DESIGNATIONS INVOLVED
		TRANSFORMERS (Continued)																		
T-302	1st I-F Transformer	Assembly consists of: primary, secondary broad, medium and sharp windings, impregnated to exclude moisture. inserted in a metal shield can, oil hermetically sealed, d-c resistance of terminals E-A 2.29 ohms, E-B 12.49 ohms, E-C 24.49 ohms, d-c resistance of primary 2.21 ohms, secondary 2.21 ohms broad 0.28 ohm, sharp 0.083 ohm, inductance of primary 221.8 microhenries, (coil only-no core) inductance of assembly terminals D-F 326.54 microhenries, includes C-310,311, E-319, R-301,305 See Winding data, Figure 5-46 Dwg. No.439716			1		P-720561-504			2	2	7	7	1	1	6	6	9	9	T-302,303,304 (Qty/Eq. 3)
T-303	2nd I-F Transformer	Similar to T-302 except assembly includes C-312, 313, E-319, R-302,306 See Winding data, Figure 5-46 Dwg. No.439716			1		P-720561-505													
T-304	3rd I-F Transformer	Similar to T-302 except assembly includes C-314, 315, E-319, R-303,307 See Winding data, Figure 5-46 Dwg. No.439716			1		P-720561-506													
T-305	Diode Transformer	Assembly consists of: 2 separate primary windings connected in series, connection of the two windings forming top of primary winding, secondary broad, medium and sharp windings, impregnated to exclude moisture, inserted in metal shield can, oil hermetically sealed, d-c resistance of terminals E to white lead 2.29 ohms, E-B 12.49 ohms, E-C 24.49 ohms, d-c resistance of primary 2.21 ohms, secondary 2.21 ohms, borad 0.28 ohm, sharp 0.080 ohm, inductance of primary 221.8 microhenries (coil only-no core) inductance of assembly terminals D-F 317.33 microhenries, includes C-316,317, E-319, R-304,308 See Winding data, Figure 5-47 Dwg. No.439703			1		P-720561-503			1	1	7	7	1	1	2	2	3	3	T-305 (Qty/Eq. 1)

* For Contract NXss-17001 (RBB-2/RBC-2)
↓ For Contract NXsr-39262 (RBB-2/RBC-2)

IF/AF UNIT (Continued)

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT				BASE				TENDER		STOCK		ALL SYMBOL DESIGNATIONS INVOLVED
								RBB RBB-1 RBB-2*	RBC RBC-1 RBC-2*	RBB-2↓	RBC-2↓	RBB	RBC	RBB-1 RBB-2*	RBC-1 RBC-2*	RBB-2↓	RBC-2↓	RBB-2↓	RBC-2↓	
				TRANSFORMERS (Continued)																
T-306	CW Oscillator Transformer	Assembly consists of: two separate windings connected in series, the series connection forming another tap, impregnated to exclude moisture, inserted in metal shield can, d-c resistance of start to tap 1 0.29 ohm, start to tap 2 1.86 ohms (44 turns/3 sect.) d-c resistance of total winding 2.64 ohms, inductance of assembly, terminals D bottom, D top 320.05 microhenries frequency 400 kc, includes C-303,305,318, E-320, R-332,353 See Winding data, Figure 5-48 Dwg. No.439743			1		P-720561-502			1	1	7	7	1	1	2	2	3	3	T-306 (Qty/Eq. 1)
				VACUUM TUBES																
V-301	1st I-F Tube	Same as V-101	-6SK7																	
V-302	2nd I-F Tube	Same as V-101	-6SK7																	
V-303	3rd I-F Tube	Same as V-101	-6SK7																	
V-304	CW Oscillator Tube	Same as V-103	-6AB7																	
V-305	Detector, AVC Tube	Twin diode, metal shell, octal 7 pin base, heater: 6.3 v a.c. or d.c. at 0.3 amp.	-6H6		1a	-6H6		3	3	6	6									V-305,306,307 (Qty/Eq. 3)
V-306	Noise Limiter, Output Limiter Tube	Same as V-305	-6H6																	
V-307	1st A-F Tube	Same as V-101	-6SK7																	
V-308	Output Limiter Amplifier, Silencer Amplifier Tube	Same as V-101	-6SK7																	
V-309	Output Limiter Silencer Tube	Same as V-305	-6H6																	
V-310	2nd A-F Tube	Same as V-103	-6AB7																	
V-311	Output Tube	Power Amplifier pentode, intermediate glass shell, octal 7 pin base, heater: 6.3 v a.c. or d.c. at 0.4 amp.	-6K6-GT/G		1a	-6K6-GT/G		1	1	3	3									V-311 (Qty/Eq. 1)

* For Contract NXss-17001 (RBB-2/RBC-2)
↓ For Contract NXsr-39262 (RBB-2/RBC-2)

IF/AF UNIT (Continued)

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION
FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT RBB RBB-1 RBB-2*	EQUIPMENT RBC RBC-1 RBC-2*	EQUIPMENT RBB-2↓	EQUIPMENT RBC-2↓	BASE RBB	BASE RBC	BASE RBB-1 RBB-2*	BASE RBC-1 RBC-2*	TENDER RBB-2↓	TENDER RBC-2↓	STOCK RBB-2↓	STOCK RBC-2↓	ALL SYMBOL DESIGNATIONS INVOLVED
		WIRES & CONDUCTORS																		
W-301	Hook-up Wire for Wiring Material (W-324)	Similar to W-104 except black tracer, 69" long			416		K-874582-5			1	1					1	1	1	1	W-301 (Qty/Eq. 1)
W-302	Hook-up Wire for Wiring Material (W-324)	Similar to W-104 except brown tracer, 124" long			416		K-874582-6			1	1					1	1	1	1	W-302 (Qty/Eq. 1)
W-303	Hook-up Wire for Wiring Material (W-324)	Similar to W-103 except red and green tracer, 172" long			416		K-874582-7			1	1					1	1	1	1	W-303 (Qty/Eq. 1)
W-304	Hook-up Wire for Wiring Material (W-324)	Similar to W-103 except black tracer, 50" long			416		K-874582-8			1	1					1	1	1	1	W-304 (Qty/Eq. 1)
W-305	Hook-up Wire for Wiring Material (W-324)	Similar to W-103 except red tracer, 158" long			416		K-874582-9			1	1					1	1	1	1	W-305 (Qty/Eq. 1)
W-306	Hook-up Wire for Wiring Material (W-324)	Similar to W-103 except green tracer, 121" long			416		K-874582-10			1	1					1	1	1	1	W-306 (Qty/Eq. 1)
W-307	Hook-up Wire for Wiring Material (W-324)	Similar to W-103 except blue tracer, 54" long			416		K-874582-11			1	1					1	1	1	1	W-307 (Qty/Eq. 1)
W-308	Hook-up Wire for Wiring Material (W-324)	Similar to W-103 except black and yellow tracer, 208" long			416		K-874582-12			1	1					1	1	1	1	W-308 (Qty/Eq. 1)
W-309	Hook-up Wire for Wiring Material (W-324)	Similar to W-103 except brown tracer, 47" long			416		K-874582-13			1	1					1	1	1	1	W-309 (Qty/Eq. 1)
W-310	Hook-up Wire for Wiring Material (W-324)	Similar to W-103 except yellow tracer, 184" long			416		K-874582-14			1	1					1	1	1	1	W-310 (Qty/Eq. 1)
W-311	Hook-up Wire for Wiring Material (W-324)	Similar to W-103 except red and blue tracer, 208" long			416		K-874582-15			1	1					1	1	1	1	W-311 (Qty/Eq. 1)
W-312	Hook-up Wire for Wiring Material (W-324)	Similar to W-103 except black and brown tracer, 199" long			416		K-874582-16			1	1					1	1	1	1	W-312 (Qty/Eq. 1)
W-313	Hook-up Wire for Wiring Material (W-324)	Similar to W-103 except white tracer, 180" long			416		K-874582-17			1	1					1	1	1	1	W-313 (Qty/Eq. 1)
W-314	Hook-up Wire for Wiring Material (W-324)	Similar to W-103 except black and green tracer, 108" long			416		K-874582-18			1	1					1	1	1	1	W-314 (Qty/Eq. 1)
W-315	Hook-up Wire for Wiring Material (W-324)	White, AWG #16 copper wire, 41" long			1		K-874582-19			1	1					1	1	1	1	W-315 (Qty/Eq. 1)
W-316	Bus Connection Wire for Wiring Material (W-324)	AWG #20, tinned soft copper wire, 36" long			1		K-874582-20			1	1					1	1	1	1	W-316 (Qty/Eq. 1)

* *For Contract NXss-17001 (RBB-2/RBC-2)*
↓ *For Contract NXsr-39262 (RBB-2/RBC-2)*

IF/AF UNIT (Continued)

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION
FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT RBB RBB-1 RBB-2*	EQUIPMENT RBC RBC-1 RBC-2*	EQUIPMENT RBB-2↓	EQUIPMENT RBC-2↓	BASE RBB	BASE RBC	BASE RBB-1 RBB-2*	BASE RBC-1 RBC-2*	TENDER RBB-2↓	TENDER RBC-2↓	STOCK RBB-2↓	STOCK RBC-2↓	ALL SYMBOL DESIGNATIONS INVOLVED
				WIRES & CONDUCTORS (Continued)																
W-317	Waxed Lacing Cord for Wiring Material (W-324)	Linen #6, gray color, 120" long			1		K-874582-50			1	1					1	1	1	1	W-317 (Qty/Eq. 1)
W-318	Bus Connection Wire for Wiring Material (W-324)	AWG #18, tinned soft copper wire, 85" long			1		K-874582-31			1	1					1	1	1	1	W-318 (Qty/Eq. 1)
W-319	Cable for Wiring Material (W-324)	Assembly consists of W-306, 38" long, W-307, 38" long covered with a tinned copper braid, 0.005" dia., closely braided, 33-1/2" overall length with two leads at both ends, one end 3" leads, other end 1-1/2" leads, flexible			1		M-427883-501			1	1					1	1	1	1	W-319 (Qty/Eq. 1)
W-320	Cable for Wiring Material (W-324)	Assembly consists of W-308, 25-1/2" long, W-314, 25-1/2" long covered with a tinned copper braid 0.005" dia., closely braided, 20-1/2" long with two leads at each end, one end 3-1/2" leads, other end 1-1/2" leads, flexible			1		M-427883-502			1	1					1	1	1	1	W-320 (Qty/Eq. 1)
W-321	Cable for Wiring Material (W-324)	Assembly consists of W-308, 20-1/2" long, W-314, 20-1/2" long, covered with a tinned copper braid, 0.005" dia., closely braided, 15-1/2" long with two leads at both ends, one end 3-1/2" leads, other end 1-1/2" leads, flexible			1		M-427883-503			1	1					1	1	1	1	W-321 (Qty/Eq. 1)
W-322	Cable for Wiring Material (W-324)	Assembly consists of 2 AWG #18 tinned copper wires, 4" long, shielded with tinned copper braid 0.005" dia. and black glazed cotton yarn, closed braid, covered with paper cerese waxed loom, 0.295" O.D., 0.187" I.D., 10-1/8" over-all length, pigtail leads at both ends			524		K-874212-501			1	1					1	1	1	1	W-322 (Qty/Eq. 1)
W-323	Bus Connection Wire for Wiring Material (W-324)	AWG #16, tinned soft copper wire, 6" long			1		K-874582-48			1	1					1	1	1	1	W-323 (Qty/Eq. 1)
W-324	Wiring Material (IF/AF Unit)	Assembly consists of E-322,323,324,325,334, O-308, W-301 to W-323, 325 and miscellaneous items			1		K-874582-501													W-324 (Qty/Eq. 1)
W-325	Tubing for Wiring Material (W-324)	Similar to W-119 except 10" long			1		K-874582-37			1	1					1	1	1	1	W-325 (Qty/Eq. 1)

* *For Contract NXss-17001 (RBB-2/RBC-2)*
↓ *For Contract NXsr-39262 (RBB-2/RBC-2)*

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION
FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

IF/AF (Continued)

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT				BASE				TENDER		STOCK		ALL SYMBOL DESIGNATIONS INVOLVED
								RBB RBB-1 RBB-2*	RBC RBC-1 RBC-2*	RBB-2↓	RBC-2↓	RBB	RBC	RBB-1 RBB-2*	RBC-1 RBC-2*	RBB-2↓	RBC-2↓	RBB-2↓	RBC-2↓	
				SOCKETS																
X-301	1st I-F Tube Socket	Steatite, octal, 8 silver plated contacts, stainless steel adapter plate for mounting	-49373	RE 49AA 313A	6		M-421395-505	3	3	5	5					5	5	10	10	X-301,302,303 305,306,307 308,309,310 311 (Qty/Eq. 10)
X-302	2nd I-F Tube Socket	Same as X-301	-49373																	
X-303	3rd I-F Tube Socket	Same as X-301	-49373																	
X-304	CW Oscillator Tube Socket	Same as X-104	-49373																	
X-305	Detector, AVC Tube Socket	Same as X-301	-49373																	
X-306	Noise Limiter, Output Limiter Tube Socket	Same as X-301	-49373																	
X-307	1st A-F Tube Socket	Same as X-301	-49373																	
X-308	Output Limiter Amplifier, Silencer Amplifier Tube Socket	Same as X-301	-49373																	
X-309	Output Limiter Silencer Tube Socket	Same as X-301	-49373																	
X-310	2nd A-F Tube Socket	Same as X-301	-49373																	
X-311	Output Tube Socket	Same as X-301	-49373																	
				FILTERS																
Z-301	Output Filter for J-302	Assembly consists of C-355,356, L-304 A&B, bracket and assembling hardware See Winding data, figures 5-50 Dwg. #439715			1		M-421251-501													Z-301 (Qty/Eq. 1)
Z-302	Meter Filter	Assembly consists of C-349,364,365,366,370, L-305,308 A&B and brass plate See Winding data, figure 5-51 Dwg. #439720			1		K-865456-501													Z-302 (Qty/Eq. 1)
				MISCELLANEOUS																
	Solder	120" long			1		K-874582-22			1	1					1	1	1	1	

* For Contract NXss-17001 (RBB-2/RBC-2)
↓ For Contract NXsr-39262 (RBB-2/RBC-2)

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION
FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

RECTIFIER POWER UNIT

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT RBB, RBB-1, RBB-2* / RBC, RBC-1, RBC-2*	EQUIPMENT RBB-2↓ / RBC-2↓	BASE RBB	BASE RBC	BASE RBB-1, RBB-2*	BASE RBC-1, RBC-2*	TENDER RBB-2↓ / RBC-2↓	STOCK RBB-2↓ / RBC-2↓	ALL SYMBOL DESIGNATIONS INVOLVED
		CAPACITORS														
C-401	Line Filter Capacitor	Same as C-115	-48938-B10					1	1					2	2	
C-402	Line Filter Capacitor	Same as C-115	-48938-B10													
C-403A B	Line Filter Capacitor Line Filter Capacitor	Same as C-343A&B	-481167-10					1	1					3	5	
C-404A B	Line Filter Capacitor Line Filter Capacitor	Same as C-343A&B	-481167-10													
C-405	H-V Filter Capacitor	Fixed, paper, oil filled, 0.1 mfd ±10%, 1250 v d.c. working	-48596-10	RE 13A 488	1		P-720555-56	1	1					2	3	C-405 (Qty./Eq. 1)
C-406	H-V Filter Capacitor	Fixed, paper. oil filled, 10 mfd +10% -3%, 600 v d.c. working	-48721	RE 13A 488	18	Cat. #9CE5A87	K-860217-2	1	1					3	5	C-406,407 (Qty./Eq. 2)
C-407	H-V Filter Capacitor	Same as C-406	-48721													
		MISCELLANEOUS ELECTRICAL PARTS														
E-401	Round Panel Knobs Used For Removing Chassis Provided on Front Panel	Same as E-103													2	
E-402	Extractor Fuse Post For F-401,402	Brass, 0.021" thick, 2-15/16" long, 1-3/8" between mounting holes, 2 holes 0.136" dia.			3	Cat.#440FH	K-866666-1		1					1	2	E-402 (Qty./Eq. 2)
E-403	Contacts for Octal Sockets X-401,402	Same as E-136						4	4					6	10	
E-404	Terminal Lug For Wiring Material (W-402)	Same as E-124							2					2	2	
E-405	Terminal Board (TB-401) Located Near L-406	Assembly consists of laminated phenolic board 3-3/8" x 2-7/8" x 1/8" with 12 brass terminals, 4 stand-off terminals marked 110-115-120 link switch and 3 resistors R-401,402,403		17-P-5 Type FBE	1		M-420911-501									E-405 (Qty./Eq. 1)
E-406	Filter Coil Shield	Assembly consisting of: aluminum shield, 0.064" thick, 3-9/32" high, 3-7/8" wide, 5" long, laminated phenolic insulating material 3/32" thick, 5/8" wide, 1-1/4" long and six #6-32 dural elastic stopnuts			1		M-421728-501									E-406 (Qty./Eq. 1)
E-407	Terminal Board (TB-1) Mounted On Side Panel Near X-401	Laminated phenolic 1-3/8" x 1-1/4" x 3/32", three brass terminals 0.128" dia., two holes 0.173" dia.		17-P-5 Type FBE	1		K-864125-501									

* *For Contract NXss-17001 (RBB-2/RBC-2)*
↓ *For Contract NXsr-39262 (RBB-2/RBC-2)*

RECTIFIER POWER UNIT (CONT.)

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION
FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT RBB RBB-1 RBB-2 *	EQUIPMENT RBC RBC-1 RBC-2 *	EQUIPMENT RBB-2 ↓	EQUIPMENT RBC-2 ↓	BASE RBB	BASE RBC	BASE RBB-1 RBB-2 *	BASE RBC-1 RBC-2 *	TENDER RBB-2 ↓	TENDER RBC-2 ↓	STOCK RBB-2 ↓	STOCK RBC-2 ↓	ALL SYMBOL DESIGNATIONS INVOLVED
				PROTECTIVE DEVICES																
F-401	Line Fuse	Cartridge type, glass body, 3 amps. 250 v, 1-1/4" long, 1/4" dia.			26	3AG	K-55544-4	2		20						40		100		F-401,402 (Qty./Eq. 2)
F-402	Line Fuse	Same as F-401																		
				RECEPTACLES																
J-401	Power Input Receptacle (Used with Plug P-401)	Female, 3 pole, Ever-Lok type, silver plated contacts, molded bakelite body, one end 1-3/8" dia., other end 15/16" dia., 1-9/16" x 2-1/4" overall dimensions	-49126		576		K-864222-1			1						1		2		J-401 (Qty./Eq. 1)
J-402	Power Output Receptacle	Similar to J-301 except 4 holes 0.147" dia.	℧AN-3102-28-4S	†AN-9534	6		K-866555-1			1						2		4		J-402,403 (Qty./Eq. 2)
J-403	Power Output Receptacle	Same as J-402	℧AN-3102-28-4S																	
				INDUCTANCES																
L-401	Line Filter Choke	Assembly consists of: one coil tube over which are wound 4 coils in series, d.c. resistance 0.78 ohm, inductance 647 microhenries, current 0.9 amp. normal, 1.4 amps. max., frequency 115 v 60 cycles, core and stud assembly, one plug, and 3 brass escutcheon pins 0.058" dia. x 1/4" long. See Winding Data, Figure 5-18 Dwg. #439742			1		K-826863-502			2		6		2		4		20		L-401,402, 403,404 (Qty./Eq. 4)
L-402	Line Filter Choke	Same as L-401																		
L-403	Line Filter Choke	Same as L-401																		
L-404	Line Filter Choke	Same as L-401																		
L-405	Filter Reactor	Iron core reactor, encased in a can, oil hermetically sealed, 106 ohms d-c resistance; impedance 3770 ohms at 30 v, 60 cycles a.c., 0.170 amp. d.c and shall not exceed 4200 ohms at 30 v, 60 cycles, 0 amp. d.c. Hi-pot: 1500 v r-m-s See Winding Data Figure 5-19 Dwg. #439734	-30788		1		K-900934-502			2		12		2		2		10		L-405,406 (Qty./Eq. 2)
L-406	Filter Reactor	Same as L-405	-30788																	

* For Contract NXss-17001 (RBB-2/RBC-2)
↓ For Contract NXsr-39262 (RBB-2/RBC-2)
℧ Army-Navy Type No.
† Army-Navy Specification.

RECTIFIER POWER UNIT (CONT.

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION
FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT RBB, RBB-1, RBB-2* / RBC, RBC-1, RBC-2*	EQUIPMENT RBB-2↓ / RBC-2↓	BASE RBB / RBC	BASE RBB-1, RBB-2* / RBC-1, RBC-2*	TENDER RBB-2↓ / RBC-2↓	STOCK RBB-2↓ / RBC-2↓	ALL SYMBOL DESIGNATIONS INVOLVED
			MISCELLANEOUS MECHANICAL PARTS											
O-401	Power Unit Chassis Safety Spring	Phosphor bronze, 5-15/16" flat length, 5/8" wide, 0.064" thick, one end 12° radius for 2" long, 2 holes 0.173" dia., 2 holes 0.147" dia., 3-11/32" between holes			1		K-856568-1		2			4	10	O-401 (Qty./Eq. 1)
O-402	Spring for Output Plugs P-402,403 (Part of W-401)	Phosphor bronze, 1-7/8" O.D., 1-19/32" I.D. after forming, 0.010" thick			1		K-871667-1		1			2	4	O-402 (Qty./Eq. 2)
			PLUGS											
P-401	110 V Line Input Plug	Male, 3 pole, Ever-Lok type, grounded contact pins silver plated, steel housing, 1-3/4" dia., both ends 1-1/2" dia., 3-1/8" overall length	-49125		576		K-864221-1		1			1	2	P-401 (Qty./Eq. 1)
P-402	Output Plug (Part of Power Cable W-401)	Male, 9 contacts, silver plated, coupling threaded 1-3/4"-18 threads, conduit threaded 1-7/16"-18 threads for 3/8", polarizing key in shell with 3 grooves in insert		†AN-3108-28-4P	131	2101-7	M-421449-4		1			2	4	P-402,403 (Qty./Eq. 2)
P-403	Output Plug (Part of Power Cable W-401)	Same as P-402												
			RESISTORS											
R-401	Bleeder Resistor (Part of E-405)	Fixed, composition, pigtail, 1200 ohms ±10%, 2 watts, insulated	-63474		21	BT-2	K-844302-63	2	2			5	8	R-401,402, 403 (Qty./Eq. 3)
R-402	Bleeder Resistor (Part of E-405)	Same as R-401	-63474											
R-403	Bleeder Resistor (Part of E-405)	Same as R-401	-63474											
			TRANSFORMERS											
T-401	Power Transformer	Assembly consists of: primary, shield, plate, and 3 filament windings, impregnated, encased in can, oil hermetically sealed, max. core loss 6.5 watts, max. exciting current 0.180 amp. at 120 v, 60 cycles, induced voltage 480 v, 500 cycles, Hi-pot 2500 v. See Winding data, Figure 5-49 Dwg. #439714	-30790		1		K-901013-501		1	2	12	2	3	T-401 (Qty./Eq. 1)

* For Contract NXss-17001 (RBB-2/RBC-2)
↓ For Contract NXsr-39262 (RBB-2/RBC-2)
† Army-Navy Specification.

RECTIFIER POWER UNIT (CONT.)

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATICN
FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT RBB RBB-1 RBB-2 *	EQUIPMENT RBC RBC-1 RBC-2 *	EQUIPMENT RBB-2 ↓	EQUIPMENT RBC-2 ↓	BASE RBB	BASE RBC	BASE RBB-1 RBB-2 *	BASE RBC-1 RBC-2 *	TENDER RBB-2 ↓	TENDER RBC-2 ↓	STOCK RBB-2 ↓	STOCK RBC-2 ↓	ALL SYMBOL DESIGNATIONS INVOLVED
				VACUUM TUBES																
V-401	H-V Rectifier Tube	Full wave, medium shell, octal 5 pin base, heater: 3 amps. at 5 v a.c.	-5U4-G		1a	-5U4-G		1		2										V-401 (Qty./Eq. 1)
V-402	Voltage Regulator Tube	Small shell, octal 6 pin base	-VR-105-30		1a	-VR-105-30		1		2										V-402 (Qty./Eq. 1)
				WIRES AND CONDUCTORS																
W-401	Power Cable	Assembly consists of: 5 wire conductor made from W-104 with black-green tracer, black-yellow tracer, red-green tracer, black-brown tracer, red tracer, each wire 73-1/2" long with two twisted wires one with black tracer other with brown tracer, cable assembly 73-1/2" long, inserted in a flexible, shielded conduit, 67" long, 5/8" I.D., 2 springs (O-402) and output plug at each end (P-402 and 403)	-49162		1		P-721090-501			1						1		2		W-401 (Qty./Eq. 1)
W-402	Wiring Material List (Power Unit)	Assembly consists of: E-404, W-403 to W-417 inclusive			1		K-874753-501													
W-403	Hook-up Wire for Wiring Material (W-402)	Similar to W-103 except red tracer, 79" long			416		K-874753-5			1						1		1		W-403 (Qty./Eq. 1)
W-404	Hook-up Wire for Wiring Material (W-402)	Similar to W-103 except yellow tracer, 19" long			416		K-874753-6			1						1		1		W-404 (Qty./Eq. 1)
W-405	Hook-up Wire for Wiring Material (W-402)	Similar to W-103 except green tracer, 71" long			416		K-874753-7			1						1		1		W-405 (Qty./Eq. 1)
W-406	Hook-up Wire for Wiring Material (W-402)	Similar to W-103 except black tracer, 29" long			416		K-874753-8			1						1		1		W-406 (Qty./Eq. 1)
W-407	Hook-up Wire for Wiring Material (W-402)	Similar to W-103 except blue tracer, 65" long			416		K-874753-9			1						1		1		W-407 (Qty./Eq. 1)
W-408	Hook-up Wire for Wiring Material (W-402)	Similar to W-103 except black-brown tracer, 88" long			416		K-874753-10			1						1		1		W-408 (Qty./Eq. 1)
W-409	Hook-up Wire for Wiring Material (W-402)	Similar to W-103 except black-green tracer, 64" long			416		K-874753-11			1						1		1		W-409 (Qty./Eq. 1)
W-410	Hook-up Wire for Wiring Material (W-402)	Similar to W-103 except black-yellow tracer, 45" long			416		K-874753-12			1						1		1		W-410 (Qty./Eq. 1)

* For Contract NXss-17001 (RBB-2/RBC-2)
↓ For Contract NXsr-39262 (RBB-2/RBC-2)

COMBINED PARTS AND SPARE PARTS LIST BY SYMBOL DESIGNATION
FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

RECTIFIER POWER UNIT (CONT.)

SYMBOL DESIG.	FUNCTION	DESCRIPTION	NAVY TYPE NUMBER	NAVY DRAWING OR SPEC.	MFR.	MFR. DESIG.	RCA DRAWING NUMBER	EQUIPMENT RBB RBB-1 RBB-2 * / RBC RBC-1 RBC-2 *	EQUIPMENT RBB-2 ↓ / RBC-2 ↓	BASE RBB	BASE RBC	BASE RBB-1 RBB-2 *	BASE RBC-1 RBC-2 *	TENDER RBB-2 ↓ / RBC-2 ↓	STOCK RBB-2 ↓ / RBC-2 ↓	ALL SYMBOL DESIGNATIONS INVOLVED
		WIRES AND CONDUCTORS (Continued)														
W-411	Hook-up Wire for Wiring Material (W-402)	Similar to W-103 except red-blue tracer, 30" long			416		K-874753-13		1					1	1	W-411 (Qty./Eq. 1)
W-412	Hook-up Wire for Wiring Material (W-402)	Similar to W-103 except red-green tracer, 62" long			416		K-874753-14		1					1	1	W-412 (Qty./Eq. 1)
W-413	Hook-up Wire for Wiring Material (W-402)	Similar to W-103 except white wire, 9" long			416		K-874753-16		1					1	1	W-413 (Qty./Eq. 1)
W-414	Hook-up Wire for Wiring Material (W-402)	Similar to W-104 except black tracer, 45" long			416		K-874753-17		1					1	1	W-414 (Qty./Eq. 1)
W-415	Hook-up Wire for Wiring Material (W-402)	Similar to W-104 except brown tracer, 41" long			416		K-874753-18		1					1	1	W-415 (Qty./Eq. 1)
W-416	Waxed Lacing Cord for Wiring Material (W-402)	Linen #6, gray color, 120" long			1		K-874753-20		1					1	1	W-416 (Qty./Eq. 1)
W-417	Extruded Insulating Tubing for Wiring Material (W-402)	Similar to W-119 except 0.166" I.D., 1" long			1		K-874753-22		1					1	1	W-417 (Qty./Eq. 1)
		SOCKETS														
X-401	H-V Rectifier Tube Socket	Similar to X-101 except for position of key	-49373	RE 49AA-313A	6		M-421395-503	1	1					1	2	X-401,402 (Qty./Eq. 2)
X-402	Voltage Regulator Tube Socket	Same as X-401	-49373													
		MISCELLANEOUS														
	Solder	120" long			1		K-874753-19		1					1	1	

* For Contract NXss-17001 (RBB-2/RBC-2)
↓ For Contract NXsr-39262 (RBB-2/RBC-2)

TABLE V - APPLICABLE COLOR CODES

RESISTOR AND CAPACITOR CODES

MICA CAPACITOR CODING

Values of capacitance and tolerance are coded identically on both R.M.A. 6 dot and A.W.S. coded capacitors. Only the coding of the sixth (lower left) dot differs between the two.

R. M. A. CODE

R.M.A. coded capacitors have 3 or 6 dots located as shown below.

6 DOT COLOR CODE

First Digit — Second Digit — Third Digit

D-C Working Voltage — Tolerance — †Zero Add

On capacitors bearing 6 dots, the upper 3 dots become the first 3 figures. When the number of zeros determined by the "Zero Add" (lower right) dot is added, the capacitance in micromicrofarads (mmfd) is obtained. The other two dots show the percentage tolerance and the voltage rating.

EXAMPLE:

Brown, Red, Green / Green, Silver, Brown: 125 + 0 = 1250 mmfd capacitance; 10% tolerance; 500 v d-c working voltage

3 DOT COLOR CODE

First Digit — Second Digit — †Zero Add

On capacitors bearing 3 dots, the first 2 dots become the first two figures. When the number of zeros determined by the "Zero Add" (third) dot is added, the capacitance in micromicrofarads (mmfd) is obtained. All 3 dot capacitors are rated at 500 v d-c working voltage.

EXAMPLE:

Red, Green, Brown: 25 + 0 - 250 mmfd capacitance; (inferred tolerance) 500 v d-c working voltage

A. W. S. CODE

A.W.S. coded capacitors may have a coded "Type Designation" or 6 colored dots as shown below.

TYPE DESIGNATION

CM 20 A 050 M

Component — Case — Characteristic — Capacitance — Tolerance

COMPONENT: All mica capacitors are identified by "CM".

°CASE: Identifies external shape and dimensions.

°CHARACTERISTIC: Identifies temperature coefficient and "Q".

CAPACITANCE: The first 2 digits are the first 2 figures of the capacitance, in mmfd. The third determines the number of zeros to add. If more than 3 digits are used, all except the last are figures of capacitance. The last determines the number of zeros to add.

TOLERANCE:

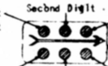
Designation	Tolerance
G	±2%
J	±5%
K	±10%
M	±20%

EXAMPLE: The above type designation identifies the capacitance as 5 mmfd and the tolerance as 20 per cent.

°For specific information see publication C75.3 - 1942 of the American Standards Association.

6 DOT COLOR CODE

EXAMPLE:
Black Orange Orange
black Silver Red
033 + 00 = 3300 mmfd capacitance
10% tolerance
"A" characteristic



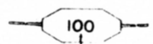
First Digit — Second Digit — Third Digit — Characteristic — Tolerance — Zero Add†

R. C. A. CODE

for mica capacitors of the shape shown below

The capacitance in micromicrofarads (mmfd) is stamped on the case. The color of the numbers shows the tolerance, as follows:

Green . . . 2.5% Blue 10%
Black . . . . 5% Yellow . . . 20%
Red . . . 30%



100 — capacitance in micromicrofarads

† *When the "ZERO ADD" color is GOLD, multiply the preceding digits by 0.1 for capacitance in mmfd; when the "ZERO ADD" color is SILVER, multiply by 0.01*

RCA CERAMIC CAPACITOR CODING

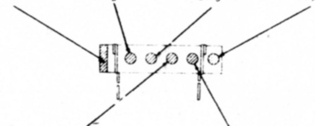
COLOR IDENTIFICATION

COLOR	DIGIT	ZERO ADD	TOLERANCE Note 1	TOLERANCE Note 2	TEMP. COEFFICIENT [MMFD/MMFD/°C.]
BLACK	0	0			0
BROWN	1	1	5%	0.5 mmfd	-0.30 x 10^{-4}
RED	2	2			-0.80 x 10^{-4}
ORANGE	3	3	2½%		-1.5 x 10^{-4}
YELLOW	4	4			-2.2 x 10^{-4}
GREEN	5	5	5%	0.5 mmfd	-3.3 x 10^{-4}
BLUE	6	6			-4.7 x 10^{-4}
VIOLET	7	7			-7.5 x 10^{-4}
GRAY	8		2½%	0.25 mmfd	
WHITE	9		10%	1.0 mmfd	

Note 1 - This column applies to capacitances GREATER than 10 mmfd.
Note 2 - This column applies to capacitances LESS than 10 mmfd.

COLOR CODING

Temperature Coefficient — First Digit — Second Digit — Tolerance (Optional location)



Zero Add — Tolerance

The d-c working voltage of this type is 500 volts.

EXAMPLE:

4 Brown Dots, Red End Color: 11 + 0 = 110 mmfd capacitance; ±5% tolerance; -0.80 x 10^{-4} mmfd/mmfd/°C. temperature coefficient; inferred: 500 volt rating

COLOR IDENTIFICATION FOR MICA CAPACITORS

COLOR	DIGITS and ZERO ADD	TOLERANCE R.M.A.	TOLERANCE A.W.S.	TOLERANCE R.C.A. mica	D-C VOLTAGE (R.M.A.)	CHARACTERISTIC (A.W.S.)
BLACK	0			5%		A
BROWN	1	1%			100	B
RED	2	2%	2% (G)		200	C
ORANGE	3	3%			300	D
YELLOW	4	4%		20%	400	E
GREEN	5	5%		2½%	500	F
BLUE	6	6%		10%	600	G
VIOLET	7	7%			700	
GRAY	8	8%			800	
WHITE	9	9%			900	
GOLD	†	5%	5% (J)		1000	
SILVER	†	10%	10% (K)		2000	
NO COLOR		20%	20% (M)		500	

†When the "ZERO ADD" color is GOLD, multiply the number obtained from "A" and "B" by 0.1 to get capacitance in mmfd; when it is SILVER; multiply the number by 0.01.

RESISTOR CODING

(Composition and Low Power Wire Wound Resistors)

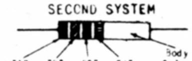
THE R.M.A. CODING AND A.W.S. CODING FOR THESE RESISTORS ARE IDENTICAL

FIRST SYSTEM

"A" Body Color; "B" End Color; "C" Zero Add† (Band or Dot); "D" Tolerance End Color

Tolerance may not be given: in which case there will be no "D" band.

SECOND SYSTEM



"A" "B" "C" "D" Body Color

The body color indicates the type of resistor, and is coded as follows:

BODY COLOR	TYPE
Black	Composition, non-insulated
Any Color but Black	Composition, insulated
Chocolate Brown	Wire wound, insulated

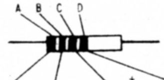
TO FIND RESISTANCE IN OHMS FROM COLOR CODING:

Obtain the digits identified by the colors of "A", "B", and "C" from the following table:

COLOR	Digit or Zero Add	COLOR	Digit or Zero Add	Tolerance
Black	0	Violet	7	
Brown	1	Gray	8	
Red	2	White	9	
Orange	3	Gold	†	5%
Yellow	4	Silver	†	10%
Green	5	No Color		20%
Blue	6			

† When the "ZERO ADD" color is GOLD, multiply the number obtained from "A" and "B" by 0.1 to get resistance in ohms; when it is SILVER; multiply the number by 0.01.

EXAMPLE

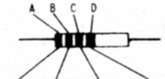


A B C D — Red 2, Green 5, Gold† 0.1, Silver 10%

A B x C = 25 x 0.1 = 2.5
Resistance is 2.5 ohms
Tolerance: 10 per cent

EXAMPLE

The first two digits "A" and "B" become the first two numbers of the resistance. The ZERO ADD digit, "C", gives the number of zeros to add after the first two numbers. If the ZERO ADD color is GOLD or SILVER, it becomes a multiplier. See note †)



A B C D — Red 2, Green 5, Orange 3, Silver 10%

A B + C zeros =
25 + 3 zeros = 25,000
Resistance is 25,000 ohms
Tolerance: 10 per cent

TABLE VI
LIST OF MANUFACTURERS
FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

CODE NUMBER	MFR. PREFIX	NAME	ADDRESS
1	CRV	Radio Corporation of America	Camden, N.J.
1a	CRC	Radio Corporation of America	Harrison, N.J.
2	CAW	Aerovox Wireless Corp.	742 Belleville Avenue New Bedford, Mass.
3		Alden Products Co.	715 Center Street Brockton, Mass.
4	CBZ	Allen-Bradley Co.	1326 S. 2nd Street Milwaukee, Wis.
5		Allen Mfg. Co.	Hartford, Conn.
6	CPH	American Phenolic Corp.	1830 S. 54th Street Cicero, Ill.
7	CHH	Arrow-Hart & Hegeman Electric Co.	102 Hawthorne Street Hartford, Conn.
13	CD	Cornell-Dubilier Electric Corp.	1000 Hamilton Blvd. S. Plainfield, N.J.
15		Drake Mfg. Co.	1713 Hubbard Street Chicago, Ill.
16	CER	Erie Resistor Corp.	644 W. 12th Street Erie, Pa.
18	CG	General Electric Co.	Schenectady, N.Y.
19	CHC	Hammarlund Mfg. Co.	460 W. 34th Street New York, N.Y.
21	CIR	International Resistance Corp.	401 N. Broad Street Philadelphia, Pa.
22	CBV	Isolantite Inc.	343 Courtland Street Belleville, N.J.
26	CLF	Littelfuse Lab.	4757 N. Ravenswood Avenue Chicago, Ill.
27		Lord Mfg. Co.	Erie, Pa.
28	CMA	P.R. Mallory and Co. Inc. (Yaxley Division)	3029 E. Washington Street Indianapolis, Ind.

CODE NUMBER	MFR. PREFIX	NAME	ADDRESS
29	CMR	Micamold Radio Corp.	1087 Flushing Avenue Brooklyn, N.Y.
31	COC	Oak Mfg. Co.	1200 N. Clybourne Avenue Chicago, Ill.
33	CRK	Radio Condenser Co.	Camden, N.J.
34	CSL	Solar Mfg. Co.	588 Avenue A Bayonne, N.J.
36	CSA	Stackpole Carbon Co.	1942 Tannery Street St. Marys, Pa.
38	CAY	Westinghouse Electric and Mfg. Co.	3001 Walnut Street Philadelphia, Pa.
39	CV	Weston Electric Instrument Co.	Newark, N.J.
40	CWC	Wirt Co.	5221 Greene Street Philadelphia, Pa.
70		Amperite Corp.	561 Broadway New York, N.Y.
90a		Bakelite Corp.	River Road Boundbrook, N.J.
122		Simon Bache and Co.	New York, N.Y.
131	CED	Cannon Electric Development Co.	3201 Humboldt Street Los Angeles, Calif.
149	CTC	Chicago Telephone and Supply Co.	Elkhart, Ind.
160		Cole-Herse Co.	54 Old Colony Avenue Boston, Mass.
165	CPD	Communication Products Co.Inc.	346 Bergen Avenue Jersey City 5, N.J.
208		Dial Light Co. of America Inc.	90 West Street New York, N.Y.
245	CMF	Electro-Motive Corp	Willimantic, Conn.
416	CLE	Lenz Electric Mfg. Co.	1751 N. Western Avenue Chicago, Ill.

TABLE VI (Continued)

LIST OF MANUFACTURERS

FOR MODELS RBB/RBC, RBB-1/RBC-1, RBB-2/RBC-2 RADIO RECEIVING EQUIPMENTS

CODE NUMBER	MFR. PREFIX	NAME	ADDRESS	CODE NUMBER	MFR. PREFIX	NAME	ADDRESS
483	CNA	National Company Inc.	61 Sherman Street Malden, Mass.				
485	CN	National Electric Machine Shops Inc.	1935 5th Street N.E. Washington, D.C.				
486		National Lock Co.	Rockford, Ill.				
521		Patton-MacGuyer Co.	Edgewood Station Providence, R.I.				
524	CPW	Philadelphia Insulated Wire Co.	3rd & Forest Street Philadelphia, Pa.				
576	CSR	Russell and Stoll Co. Inc.	125 Barclay Street New York, N.Y.				
679		Tinnerman Stove and Range Co.	Cleveland, Ohio				

SECTION VII - ILLUSTRATIONS

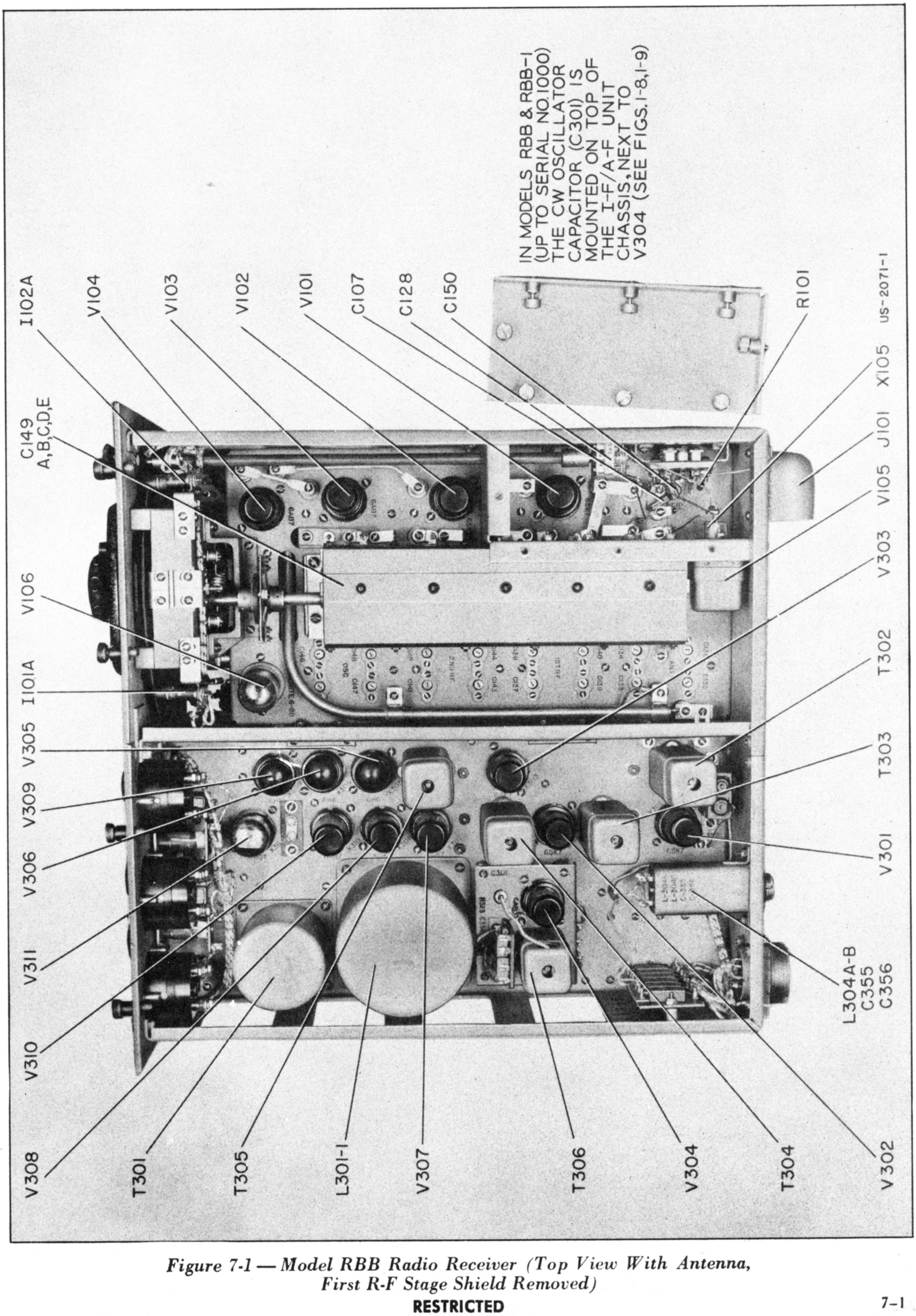


Figure 7-1 — Model RBB Radio Receiver (Top View With Antenna, First R-F Stage Shield Removed)

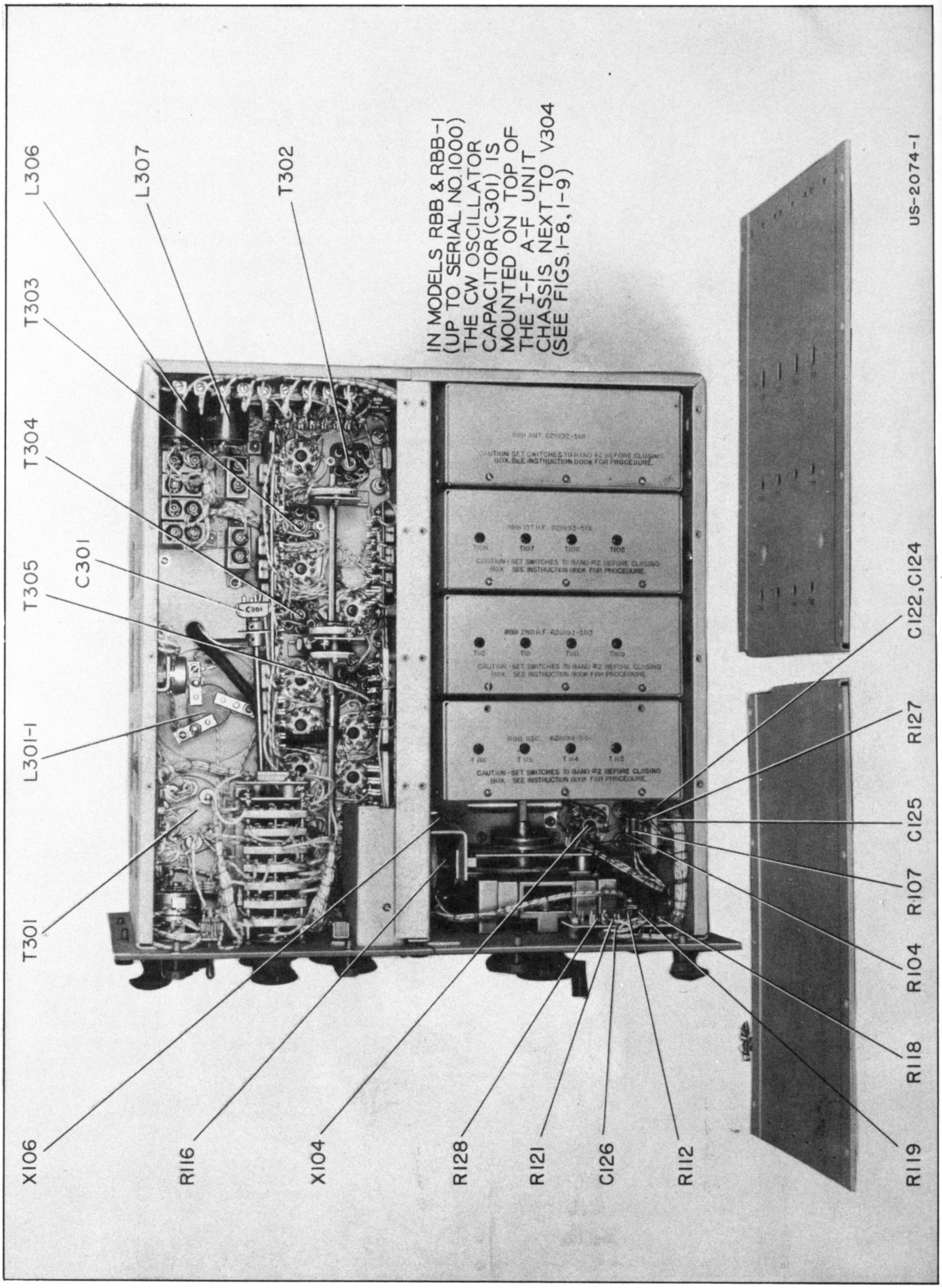


Figure 7-2 — Model RBB Radio Receiver (Bottom View With Bottom Shields Removed)

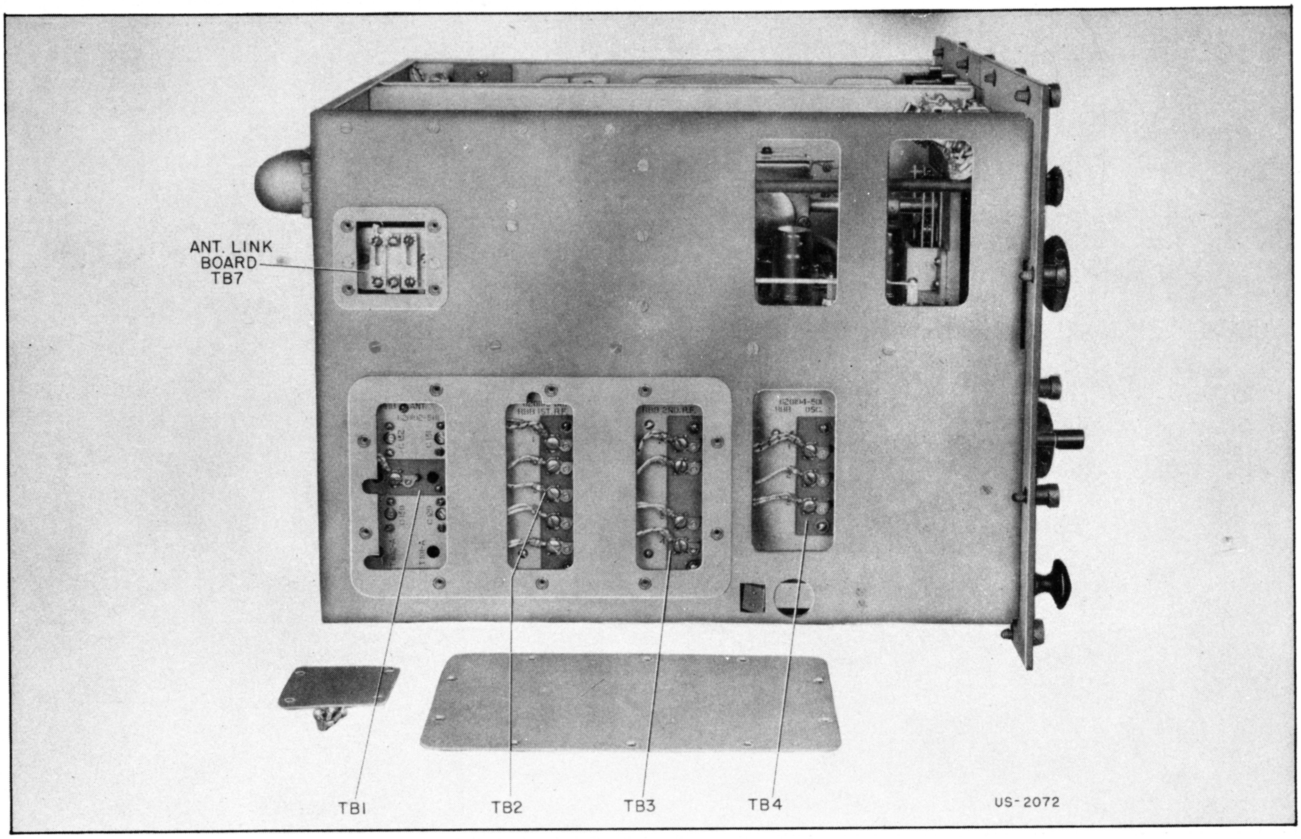


Figure 7-3 — Model RBB Radio Receiver
(Side View With Terminal Board Shields Removed)

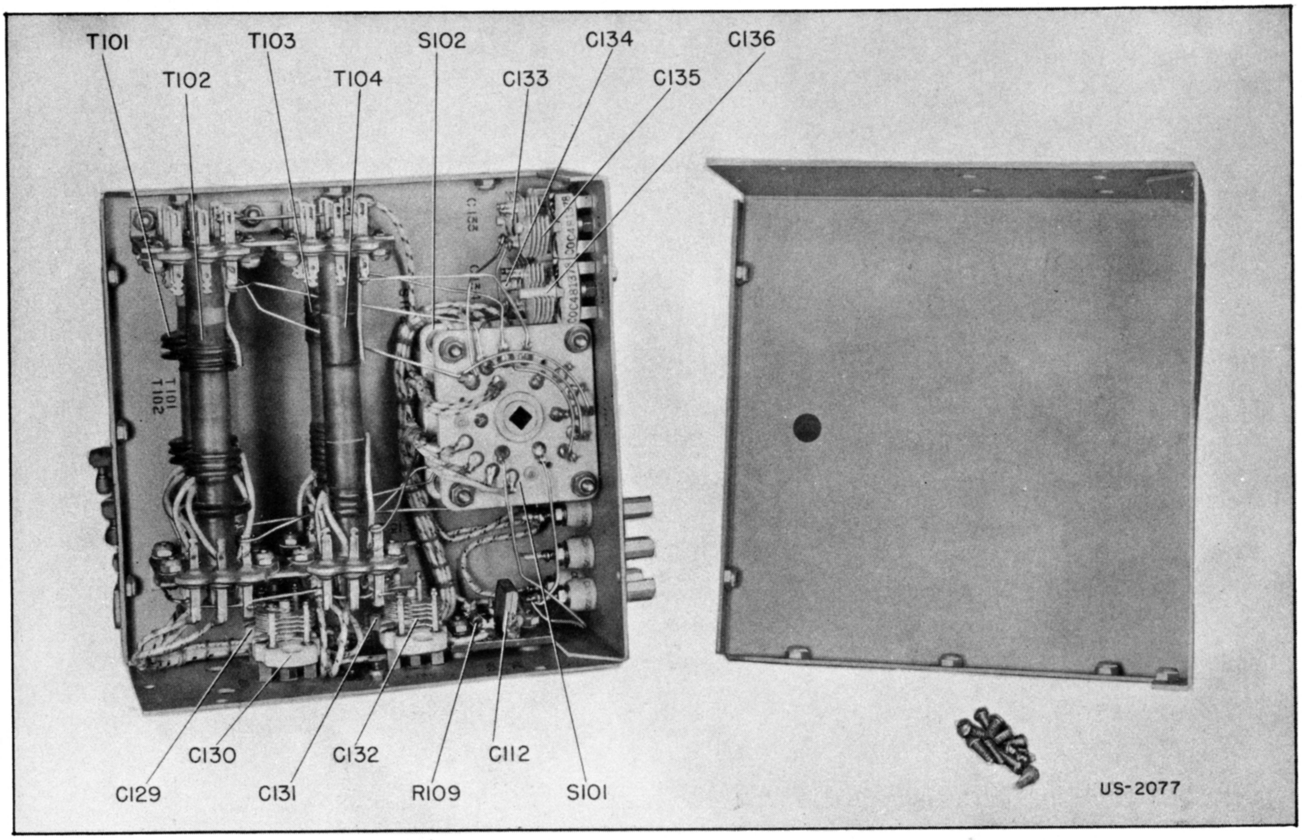


Figure 7-4 — Model RBB Radio Receiver (Antenna Box, Cover Removed)

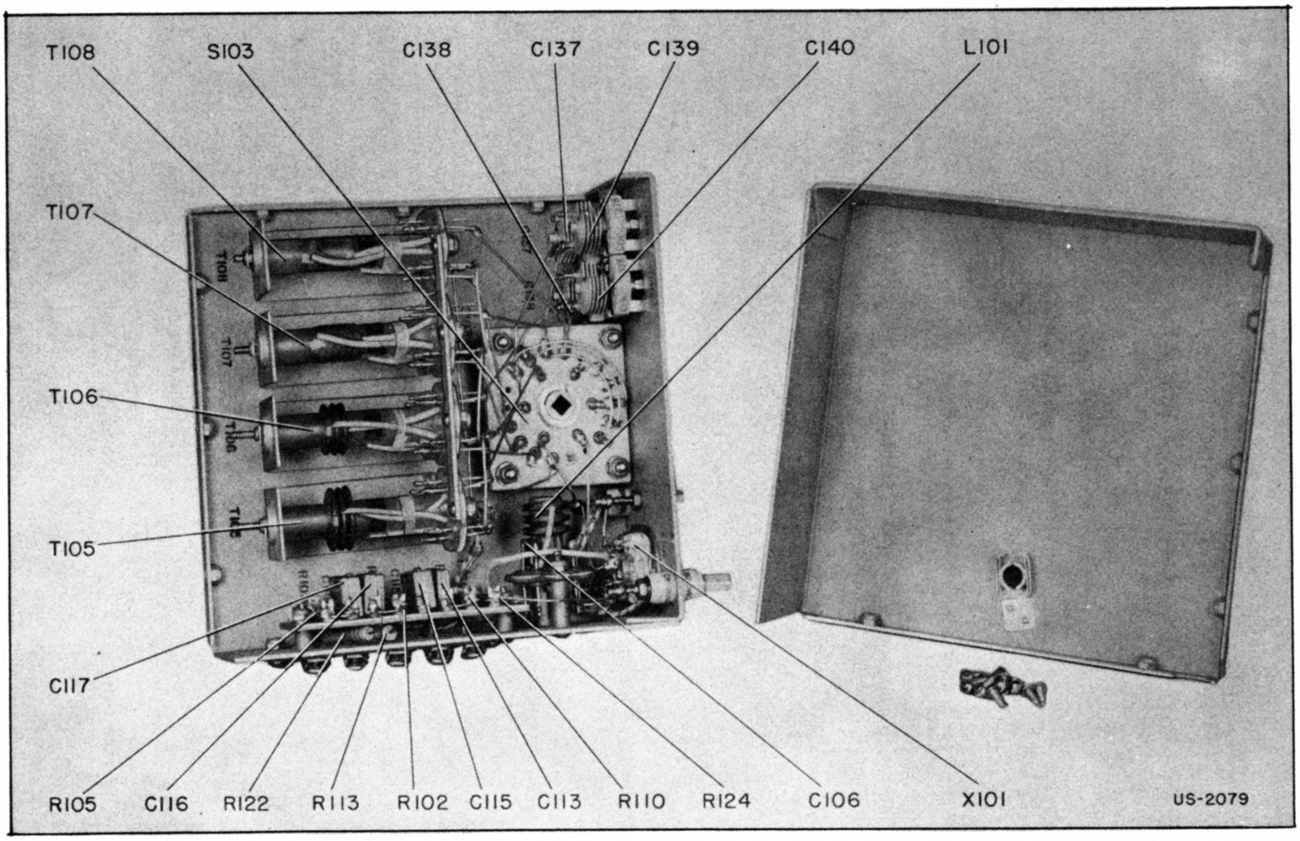


Figure 7-5 — Model RBB Radio Receiver (First R-F Box, Cover Removed Showing Shaft Grounding Clip in Cover)

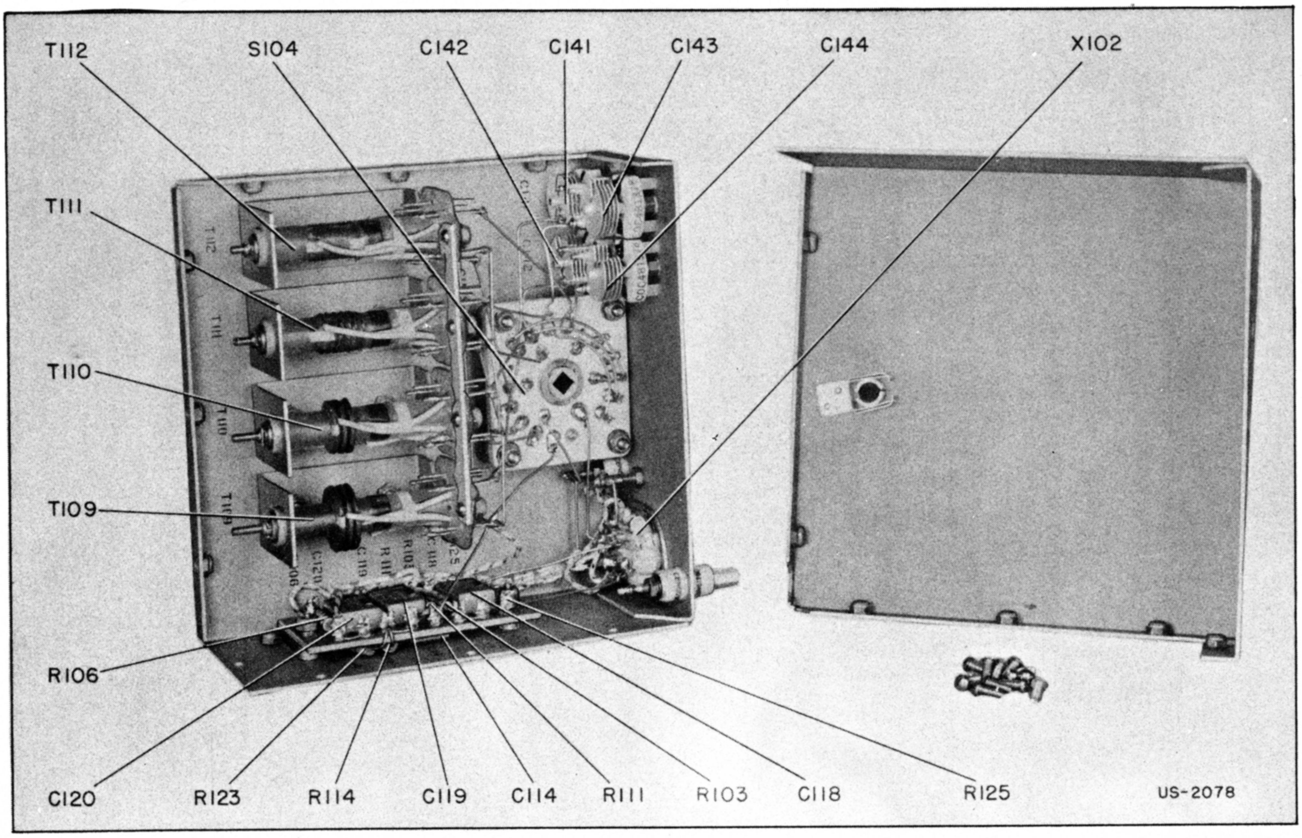


Figure 7-6 — Model RBB Radio Receiver (Second R-F Box, Cover Removed)

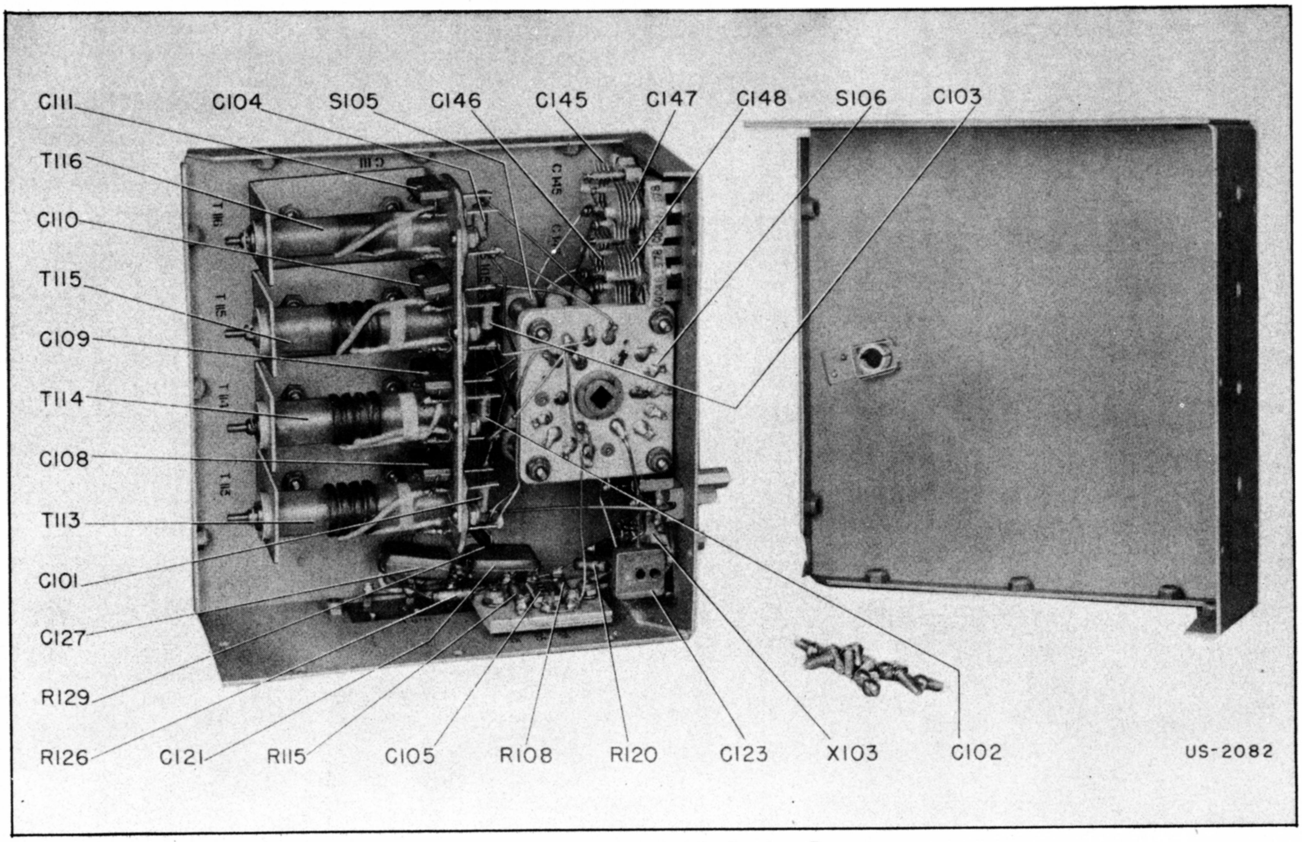


Figure 7-7 — Model RBB Radio Receiver (Oscillator Box, Cover Removed, Showing Shaft Grounding Clip in Cover)

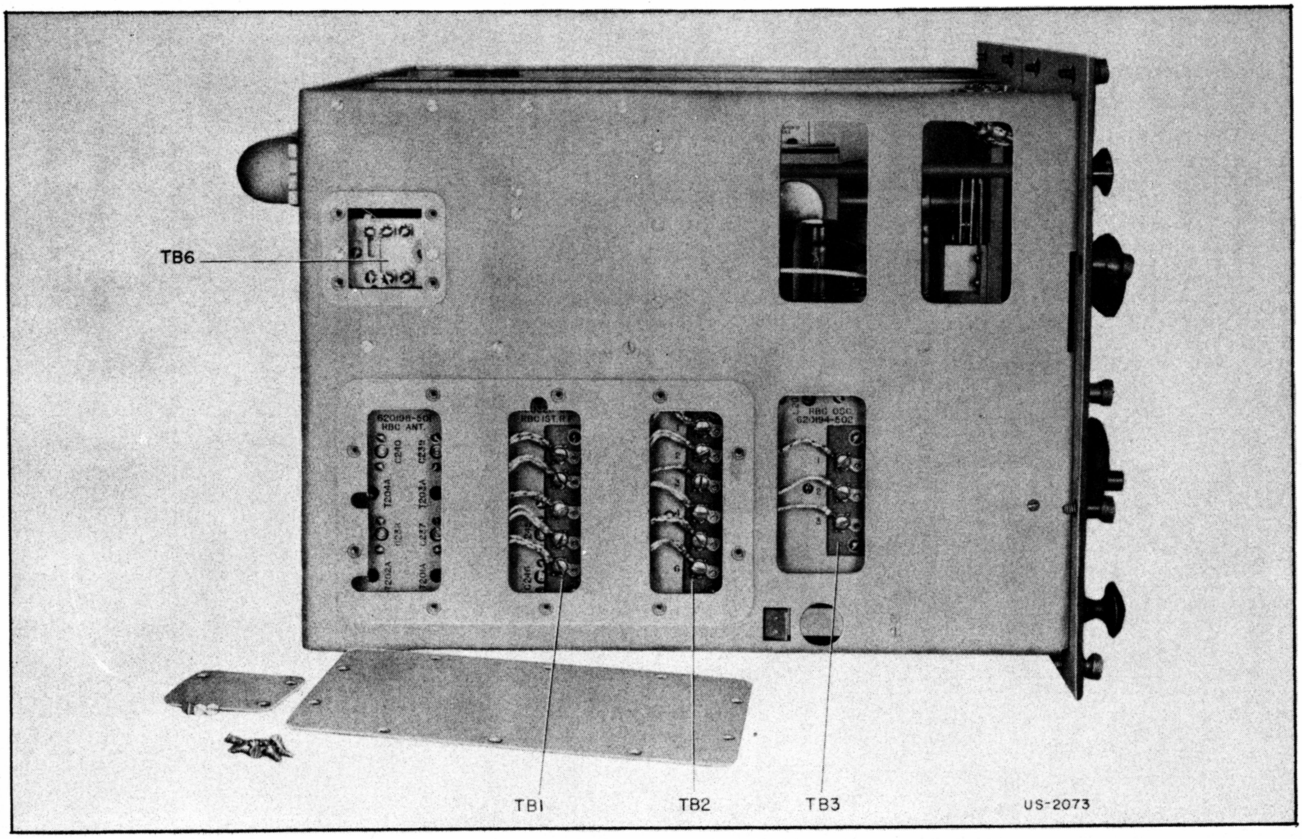


Figure 7-8 — Model RBC Radio Receiver (Side View With Terminal Board Shields Removed)

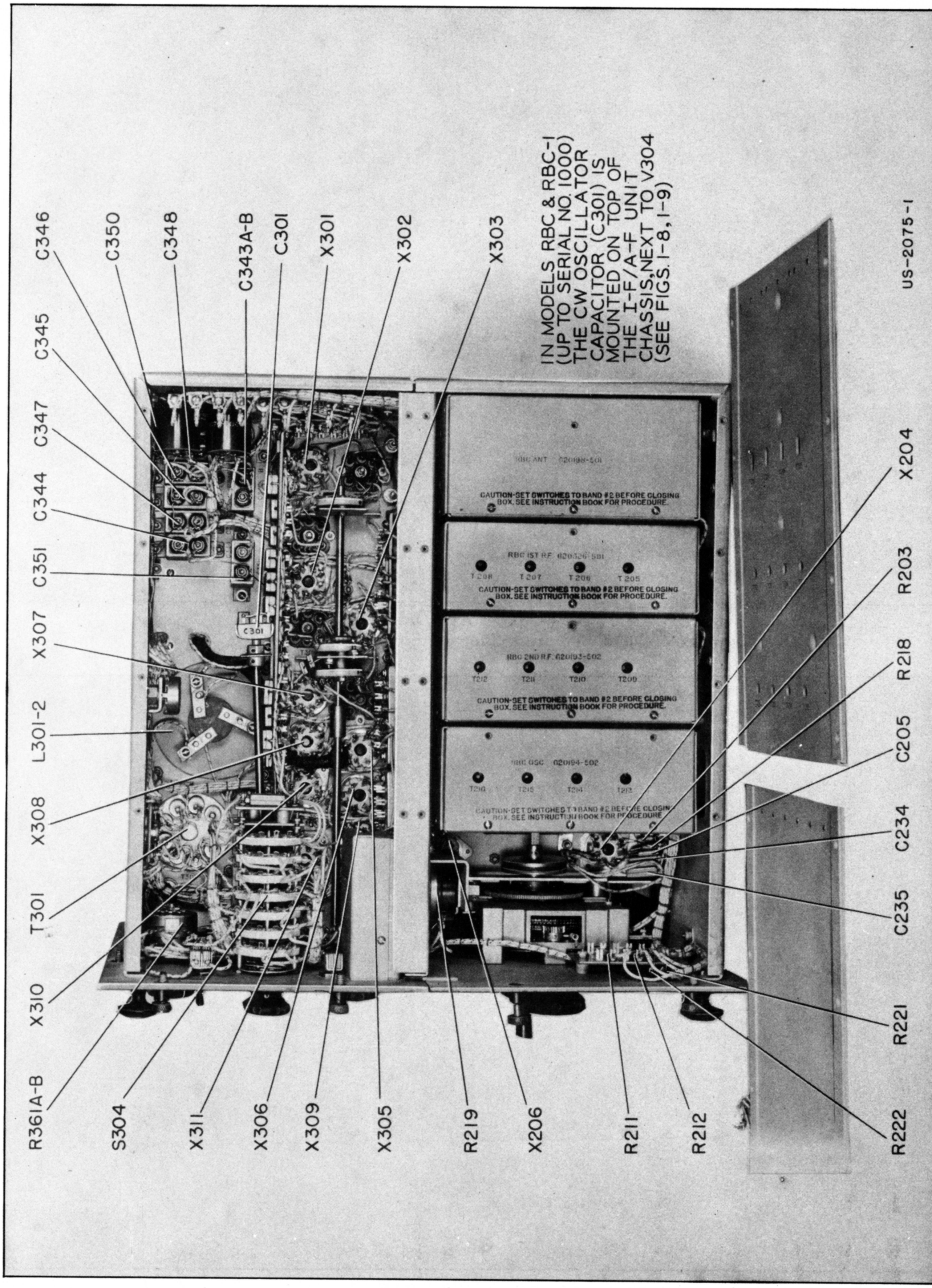


Figure 7-9 — Model RBC Radio Receiver
(Bottom View With Bottom Shields Removed)

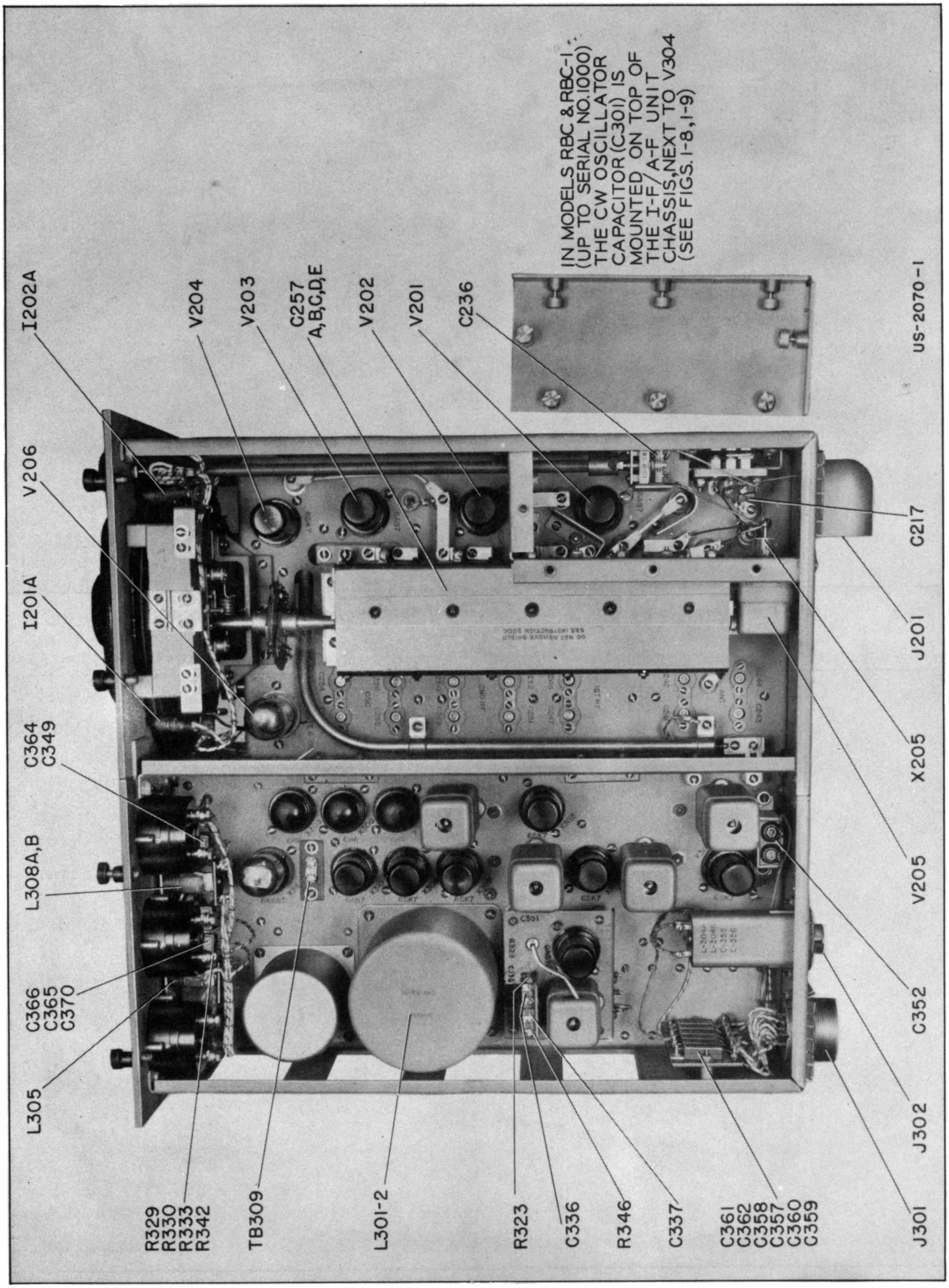


Figure 7-10 — Model RBC Radio Receiver (Top View With Antenna, First R-F Stage Shield Removed)

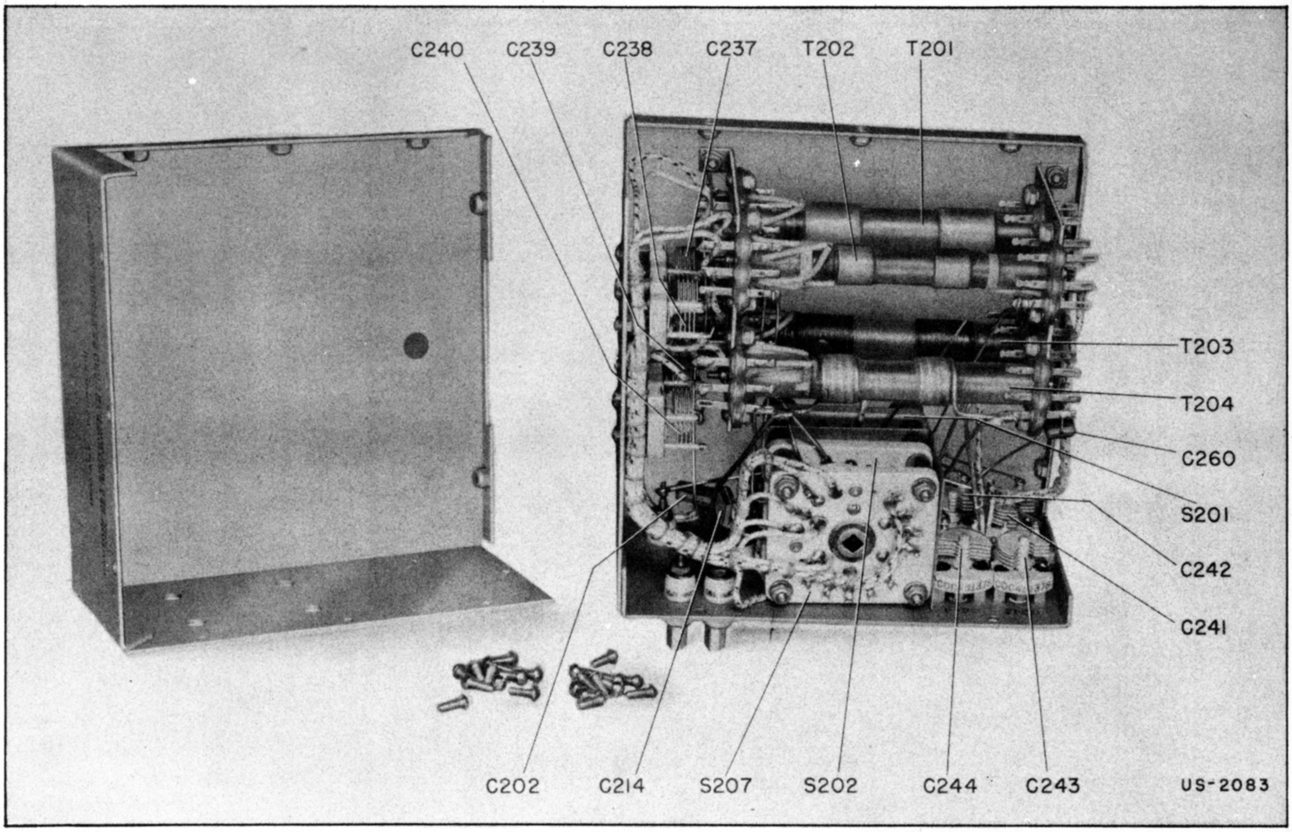


Figure 7-11 — Model RBC Radio Receiver (Antenna Box, Cover Removed)

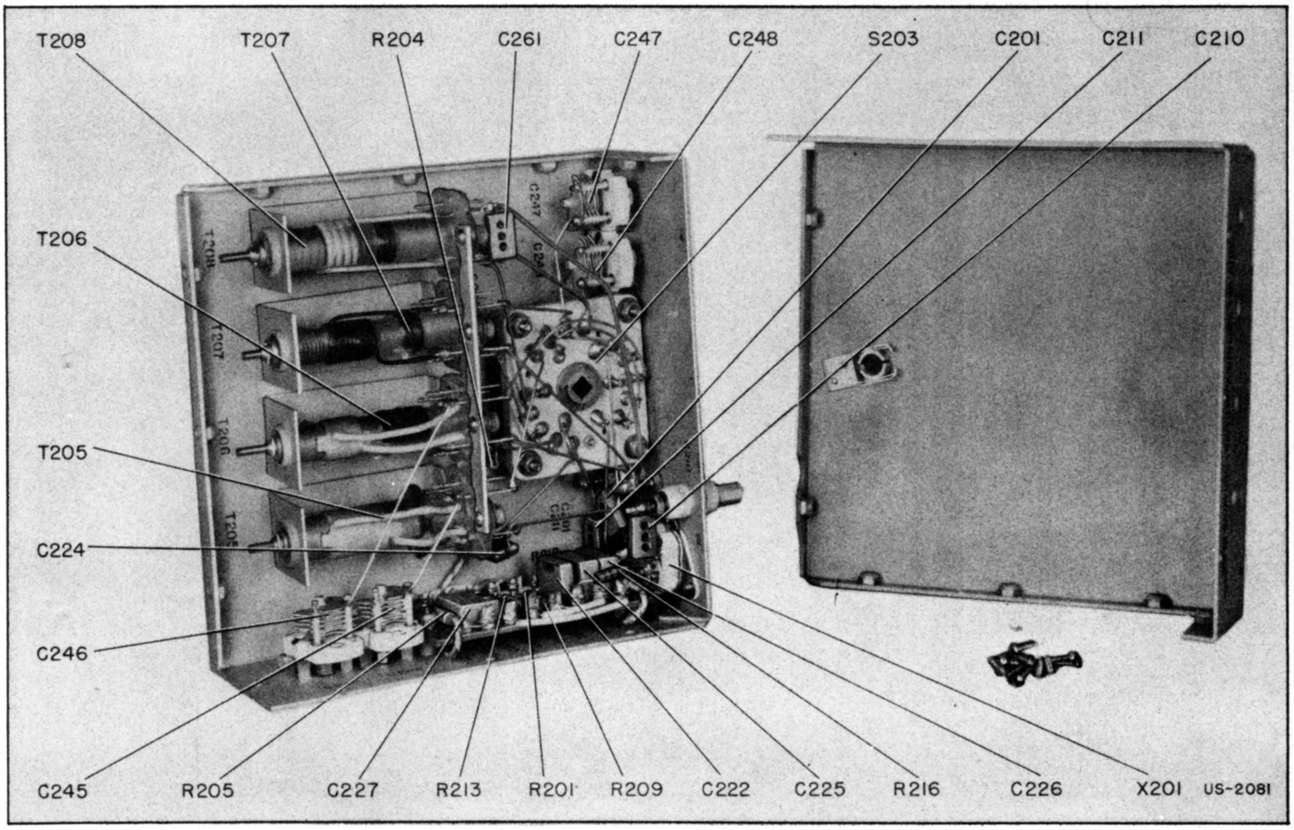


Figure 7-12 — Model RBC Radio Receiver (First R-F Box, Cover Removed)

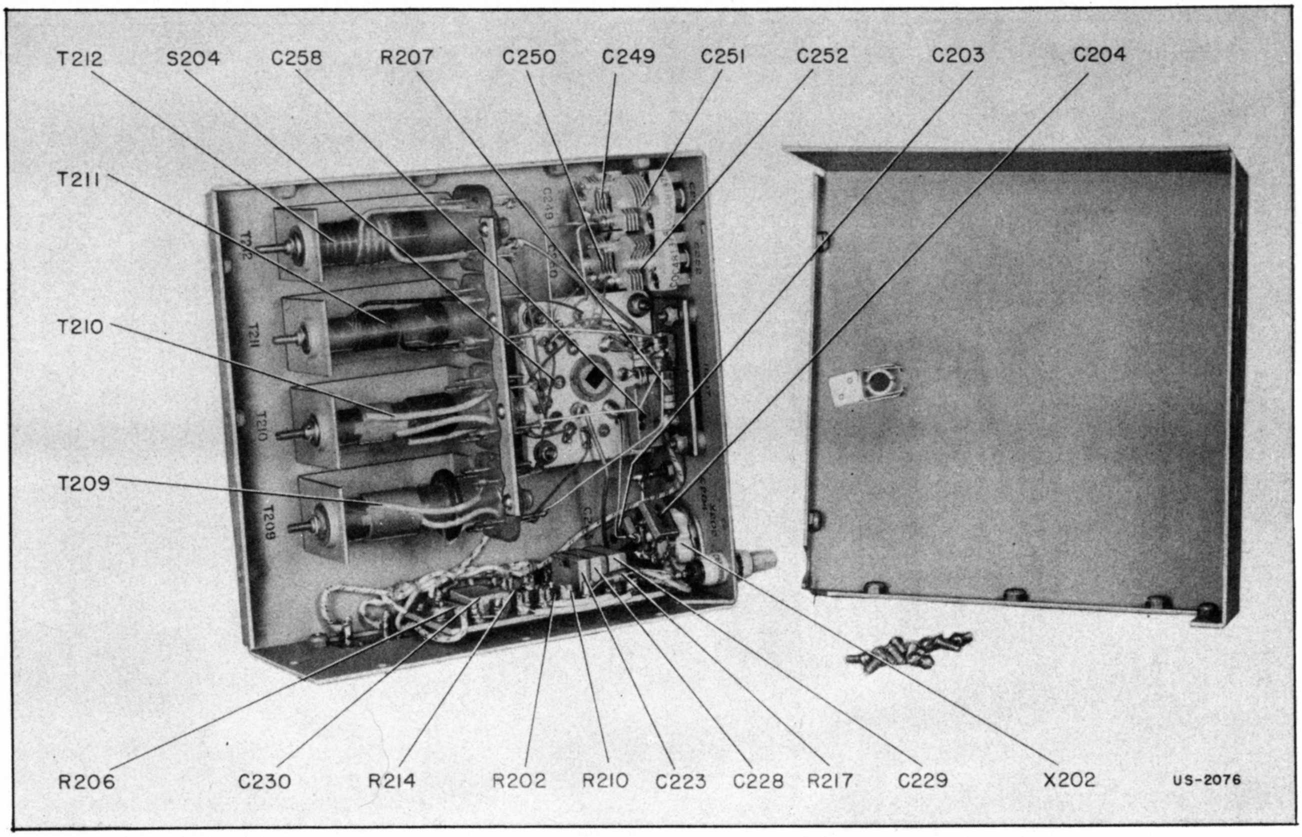


Figure 7-13 — Model RBC Radio Receiver (Second R-F Box, Cover Removed)

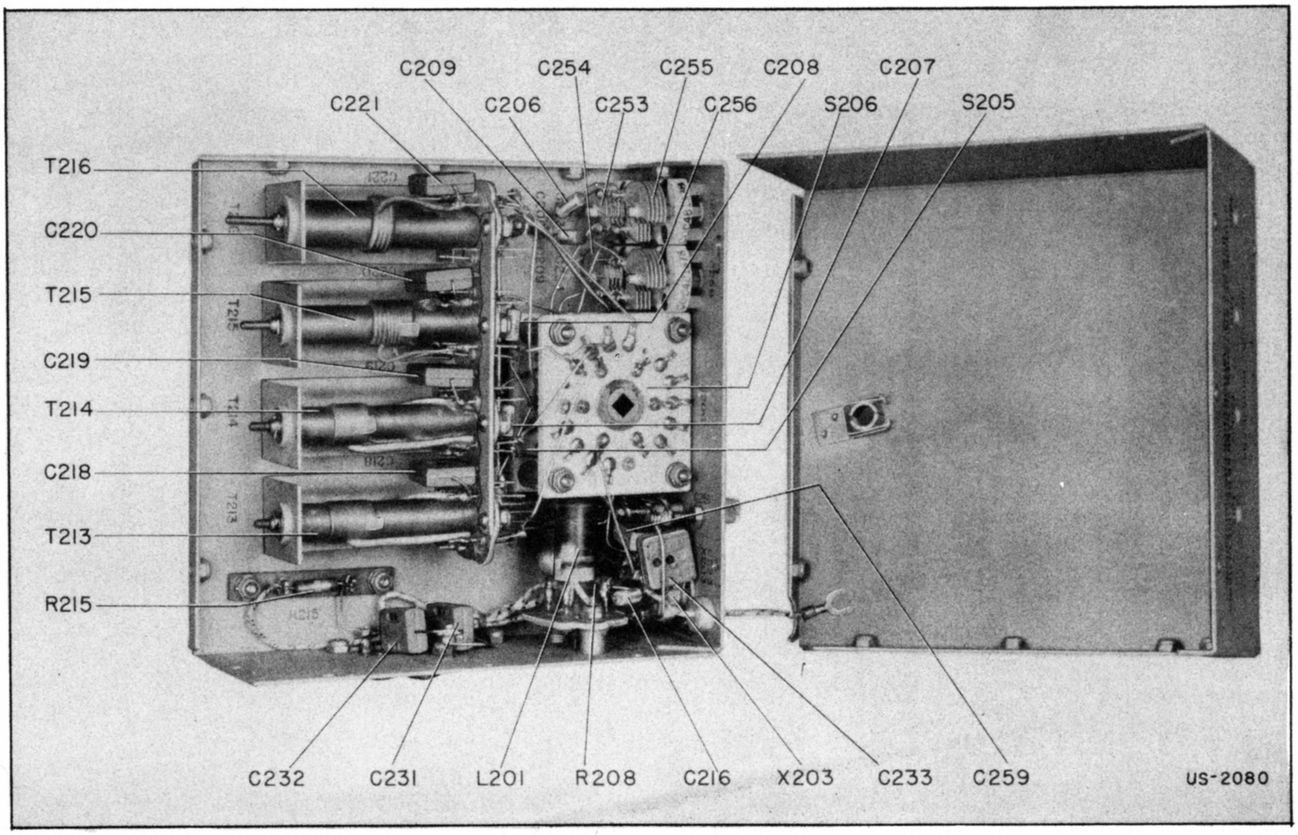


Figure 7-14 — Model RBC Radio Receiver
(Oscillator Box, Cover Removed, Showing Shaft Grounding Clip in Cover)

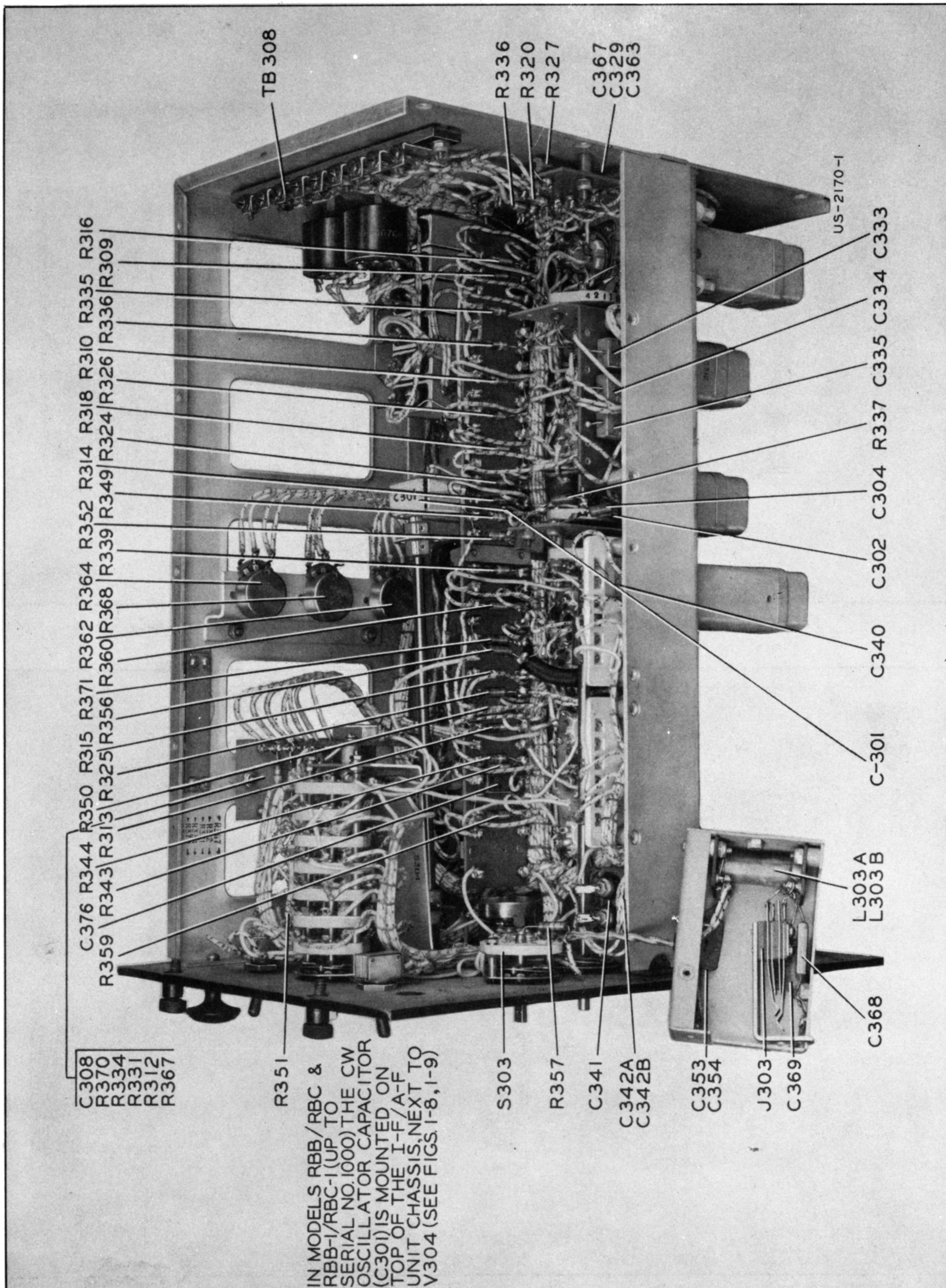


Figure 7-15 — Models RBB/RBC Radio Receivers, I-F/AF Unit Separated From Preselector Unit (Bottom View, Bottom Shield and Phone Jack Box, Cover Removed, Jack Assembly Removed From Normal Position)

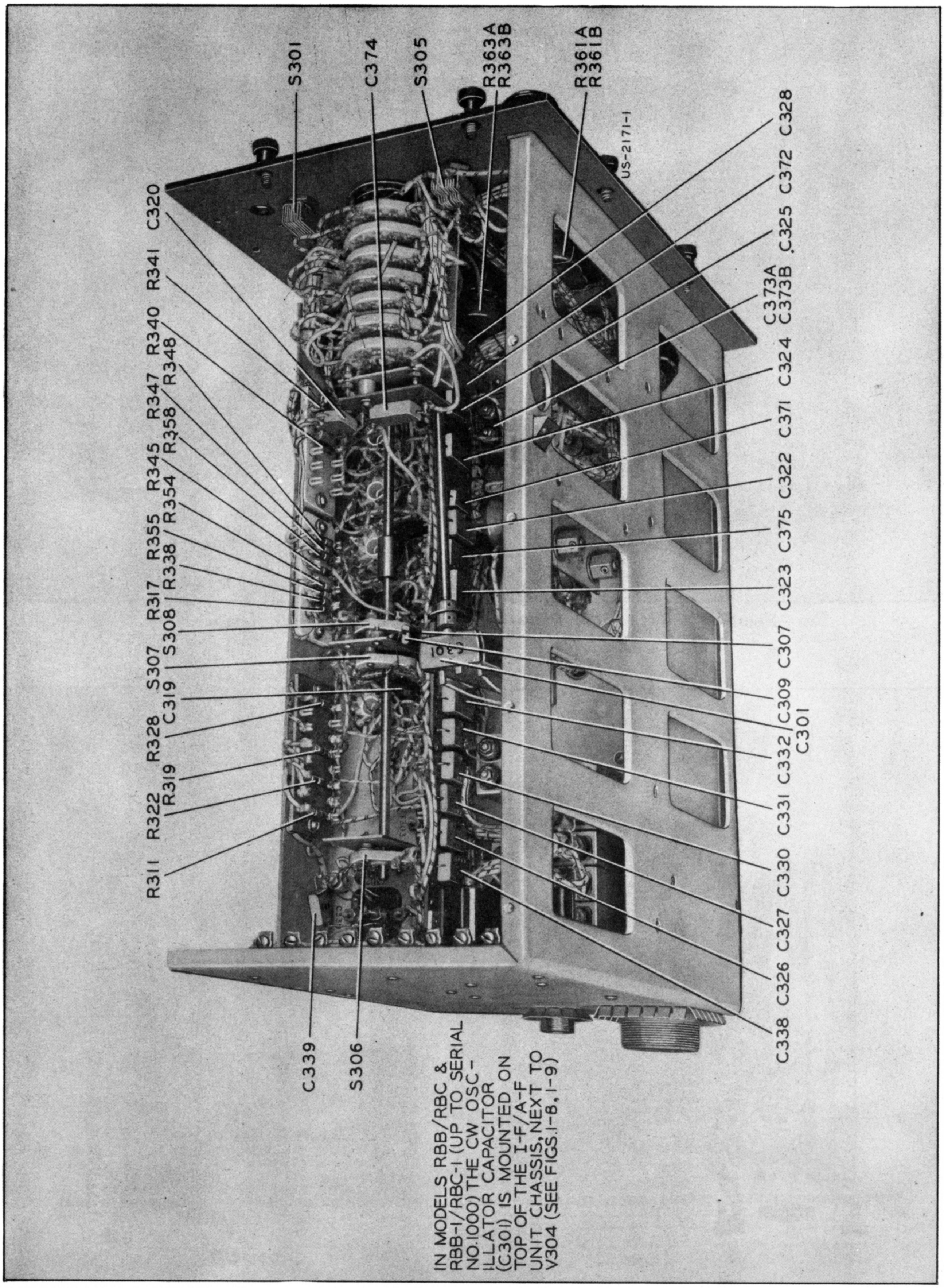


Figure 7-16 — Models RBB/RBC Radio Receivers, I-F/A-F Unit Separated From Preselector Unit (Bottom View)

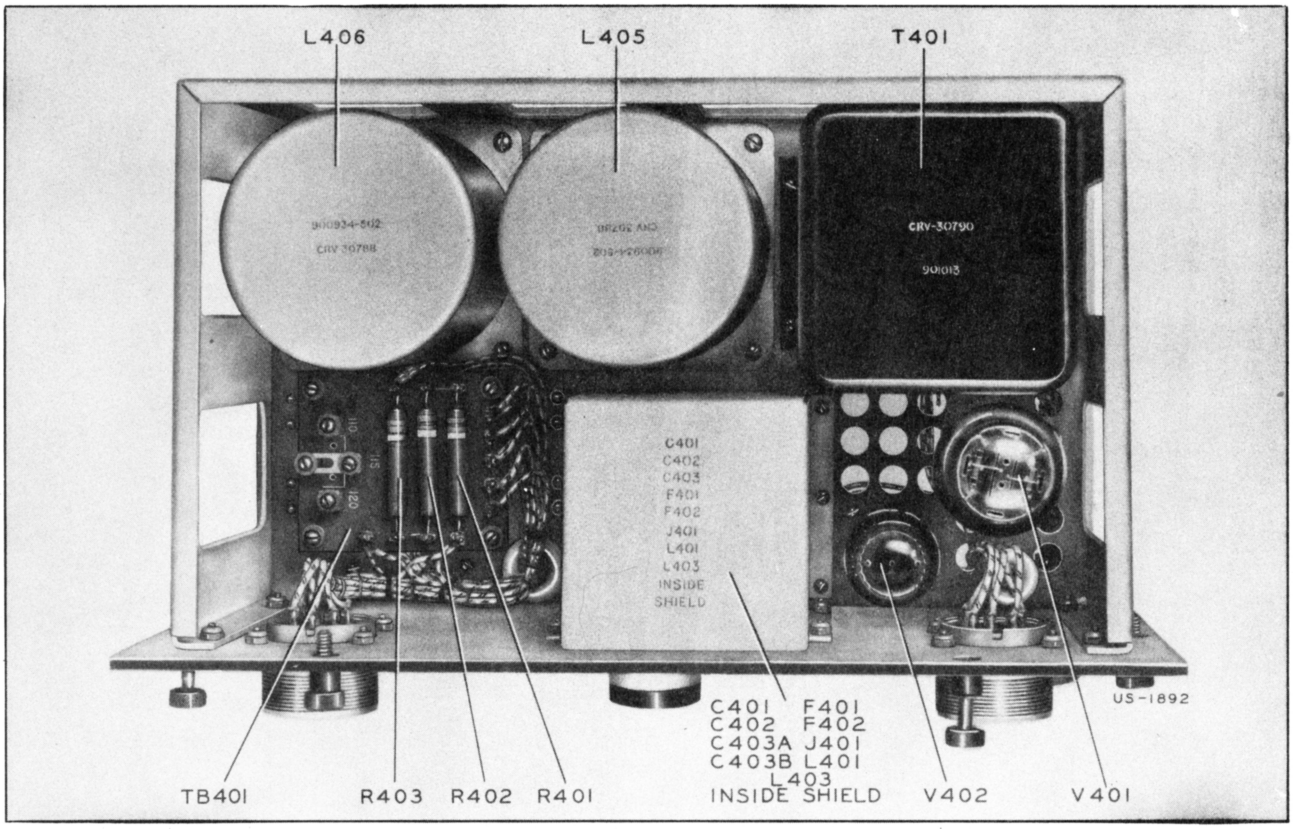


Figure 7-17 — Rectifier Power Unit (Top View, Shields Removed)

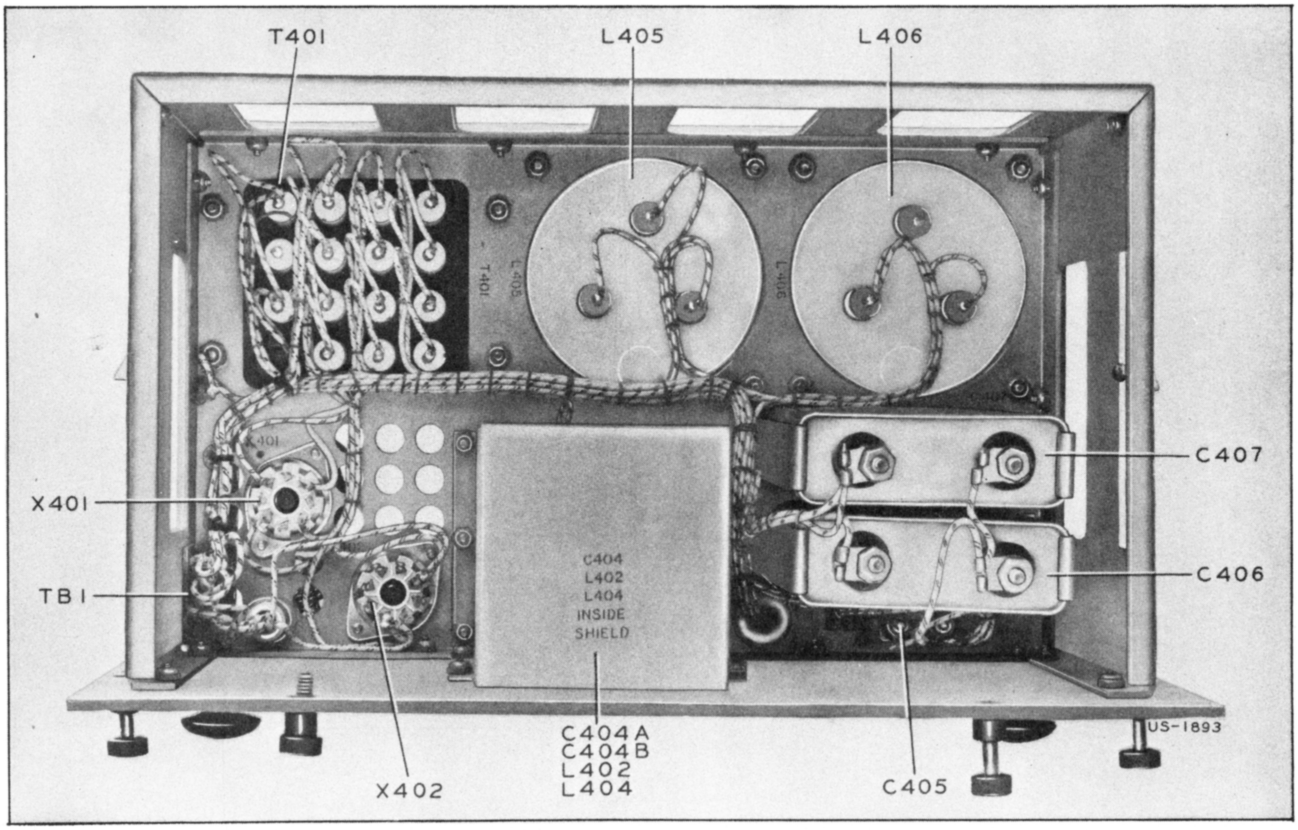


Figure 7-18 — Rectifier Power Unit (Bottom View, Shields Removed)

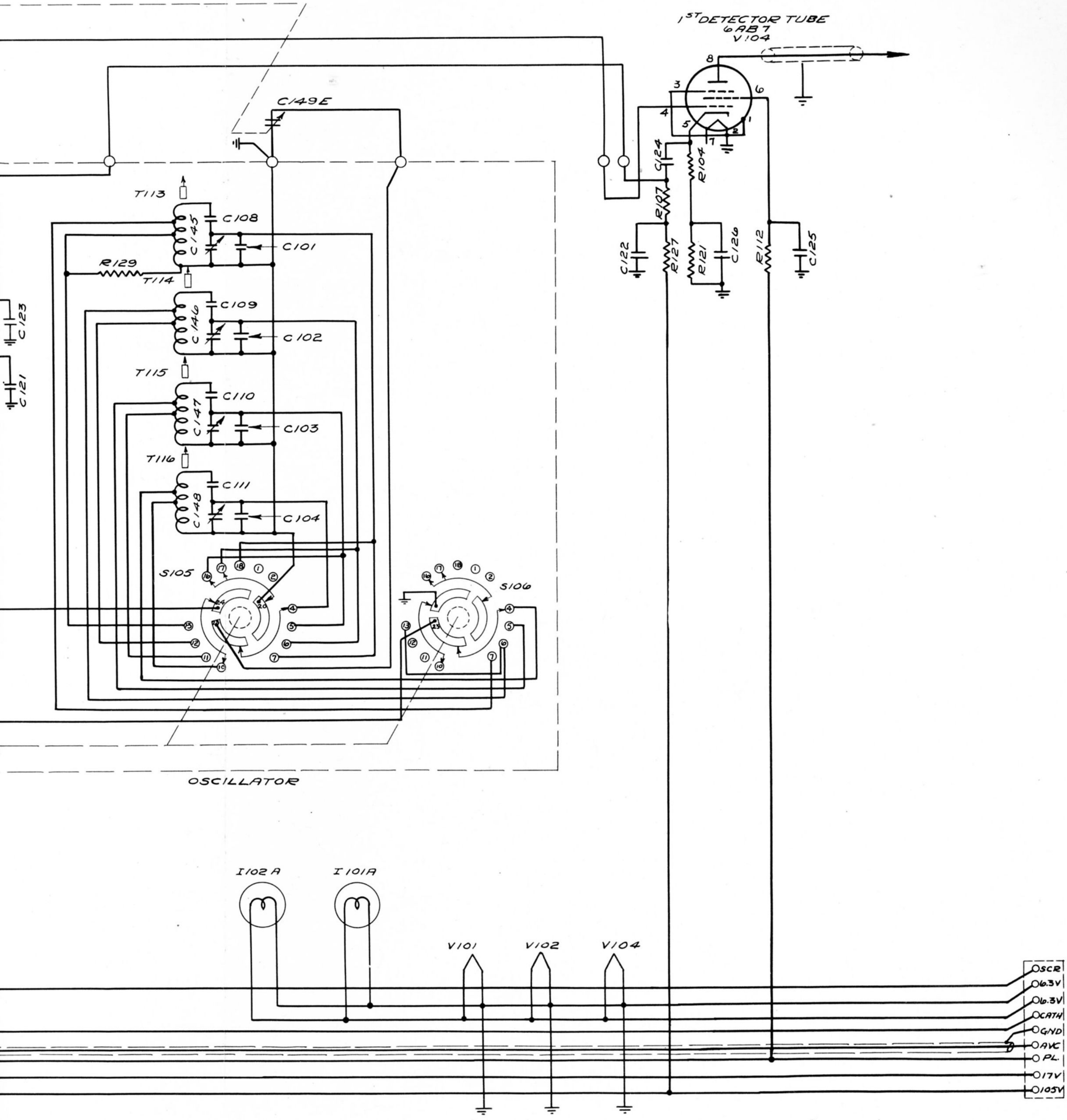
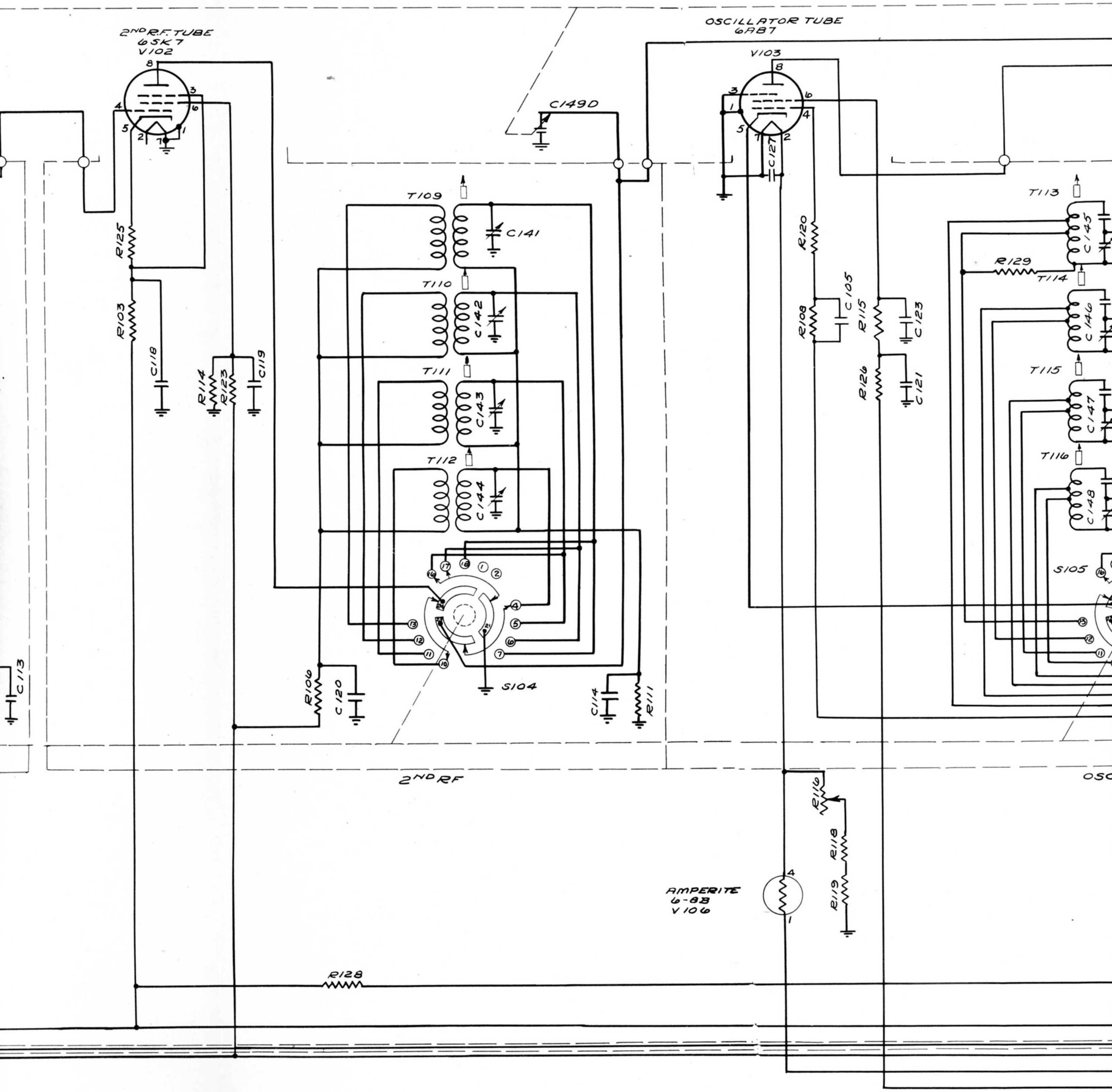
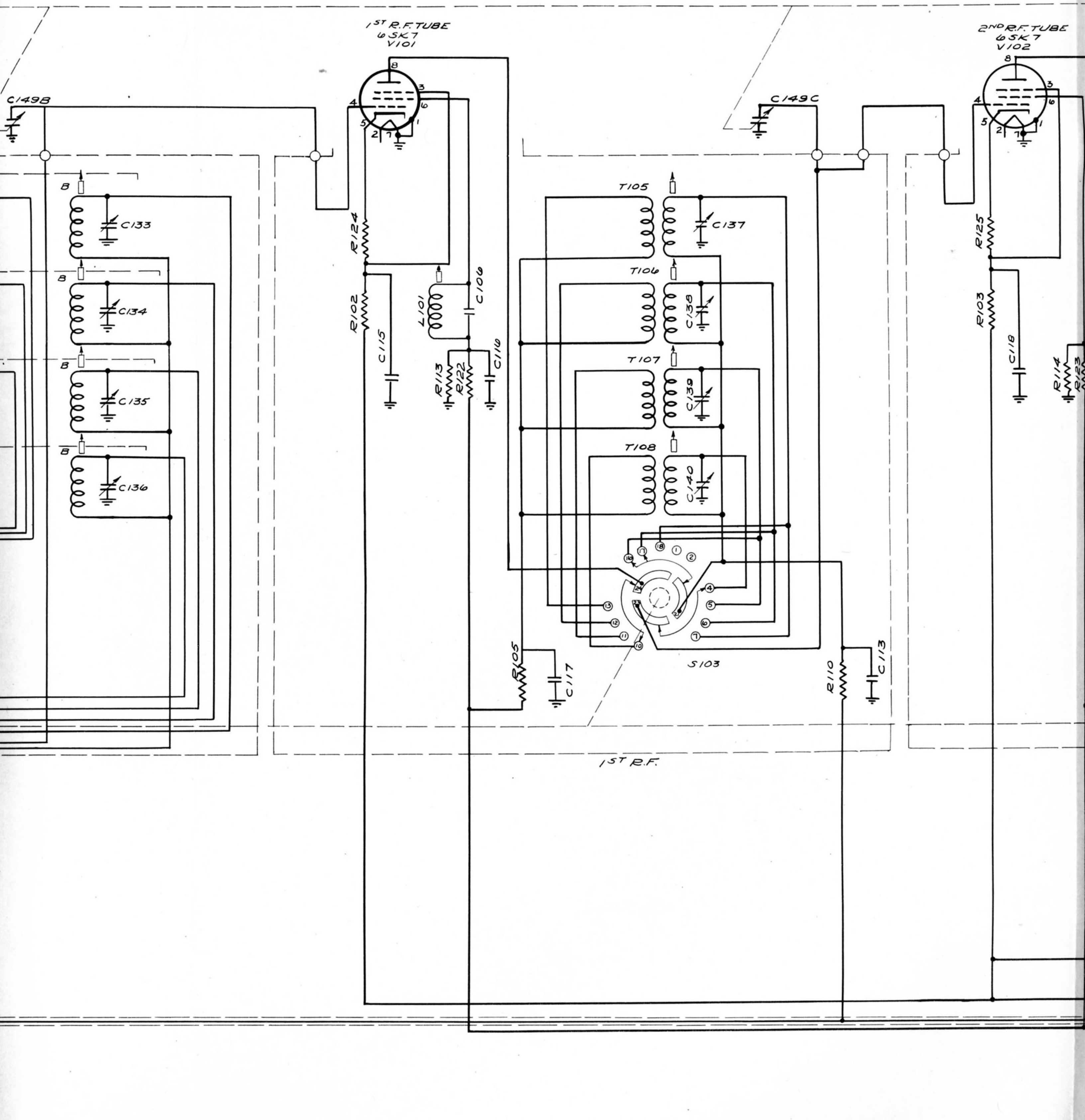


Figure 7-19 — Model RBB Radio Receiver, Preselector Unit (Schematic, TTX-262839)


2ND R.F. TUBE
6SK7
V102
OSCILLATOR TUBE
6A87
V103
C149D
T109
C141
T110
C142
T111
C143
T112
C144
S104
R125
R103
C118
R114
R123
C119
R106
C120
C114
R111
C113
2ND RF
R120
R108
C105
R115
C123
R126
C121
C127
T113
C145
R129
T114
C146
T115
C147
T116
C148
S105
R116
R118
R119
AMPERITE
6-8B
V106
R128
OSC



1ST R.F. TUBE
6SK7
V101
2ND R.F. TUBE
6SK7
V102
C149B
C149C
C133
C134
C135
C136
C137
C138
C139
C140
T105
T106
T107
T108
R124
R102
C115
L101
C106
R113
R122
C116
R125
R103
C118
R114
R123
R105
C117
R110
C113
S103
1ST R.F.

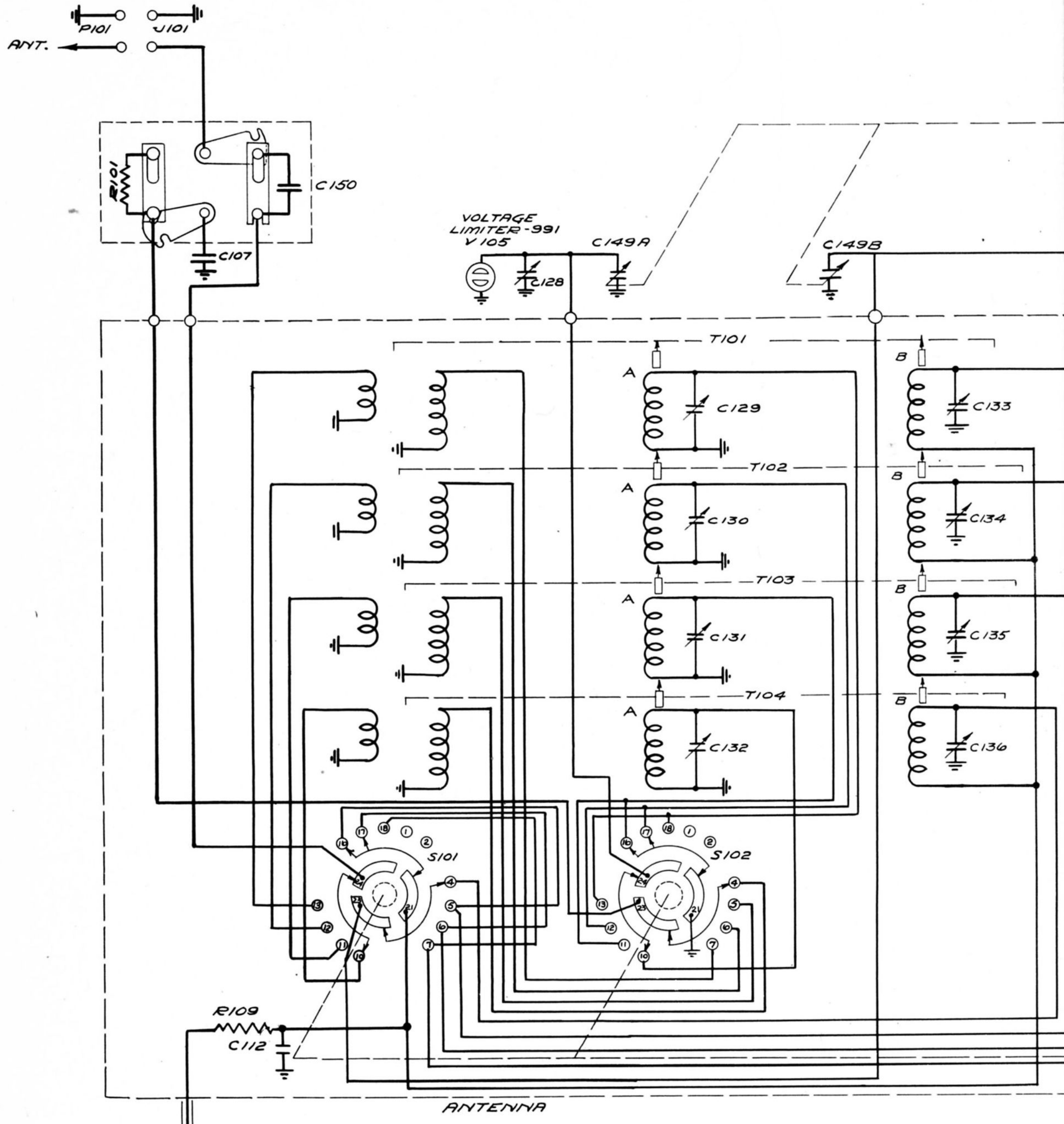
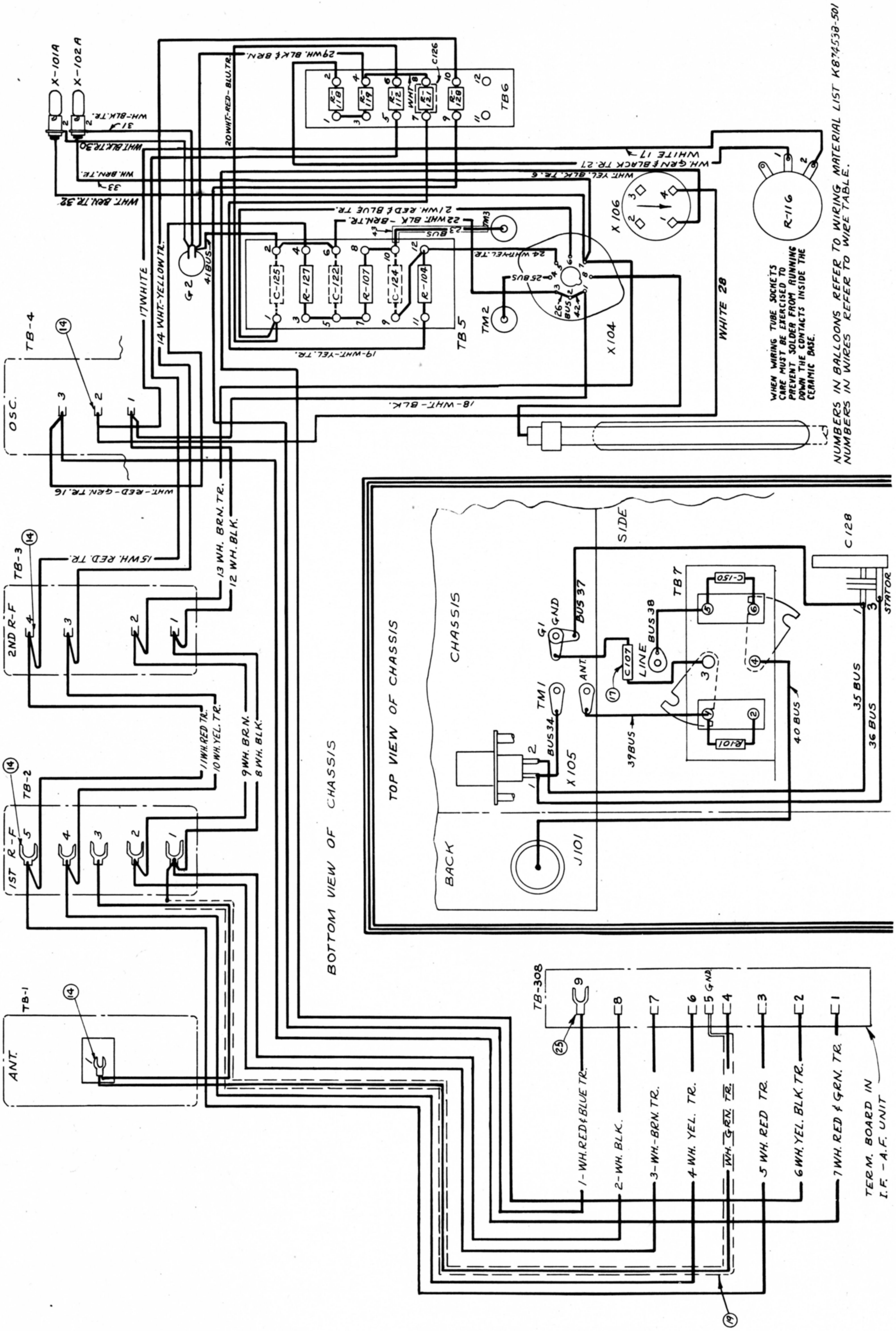

P101
J101
ANT.
R101
C150
C107
VOLTAGE
LIMITER-991
V105
C128
C149A
C149B
T101
T102
T103
T104
A
B
C129
C130
C131
C132
C133
C134
C135
C136
S101
S102
R109
C112
ANTENNA

Figure 7-19 — Model RBB Radio Receiver, Preselector Unit (Schematic, TTX-262839)



NOTE: This dwg. applies to all RBB equipments except for the following differences:

a. For Models RBB (serial Nos. 1-125) and RBB-1 (serial Nos. 1-1000).
(1) TB308 is TB1; (2) Wire No. 32 is connected from X101-A, term. No. 1 to X104, term. No. 7; (3) Wire No. 30 is connected from X101-A, term. No. 2 to G2.

b. For Models RBB (serial Nos. 1-125), RBB-1 (serial Nos. 1-2839) and RBB-2 (Contract NXss-17001, serial Nos. 1-1000A).
(1) In wire table, K-874538 column, P-5 is P-20; (2) On C128 term. No. 3 is No. 2; (3) Wire No. 32 is connected from X101-A, term. No. 1 to X102-A, term. No. 1; (4) Wire No. 30 is connected from X101-A, term. No. 2 to X102-A, term. No. 2; (5) Wire No. 28 is connected from X106, term. No. 4 to R116, term. No. 2; (6) Bus No. 37 is connected to horizontal term. at G1; (7) Vertical term. at G1 is not used.

Figure 7-20 — Model RBB Radio Receiver, Preselector Unit (Connection Diagram, PX-273262)

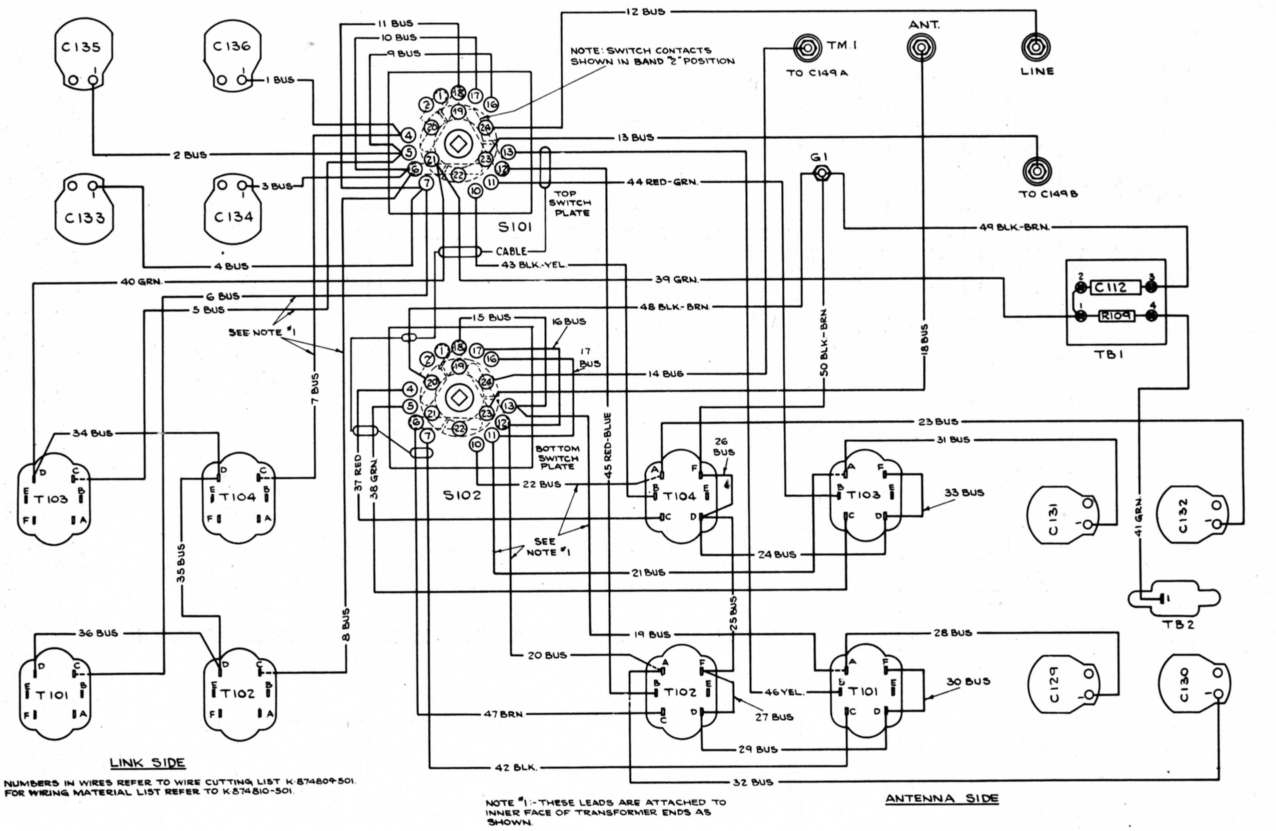


Figure 7-21 — Model RBB Radio Receiver, Antenna Box (Connection Diagram, P-721528)

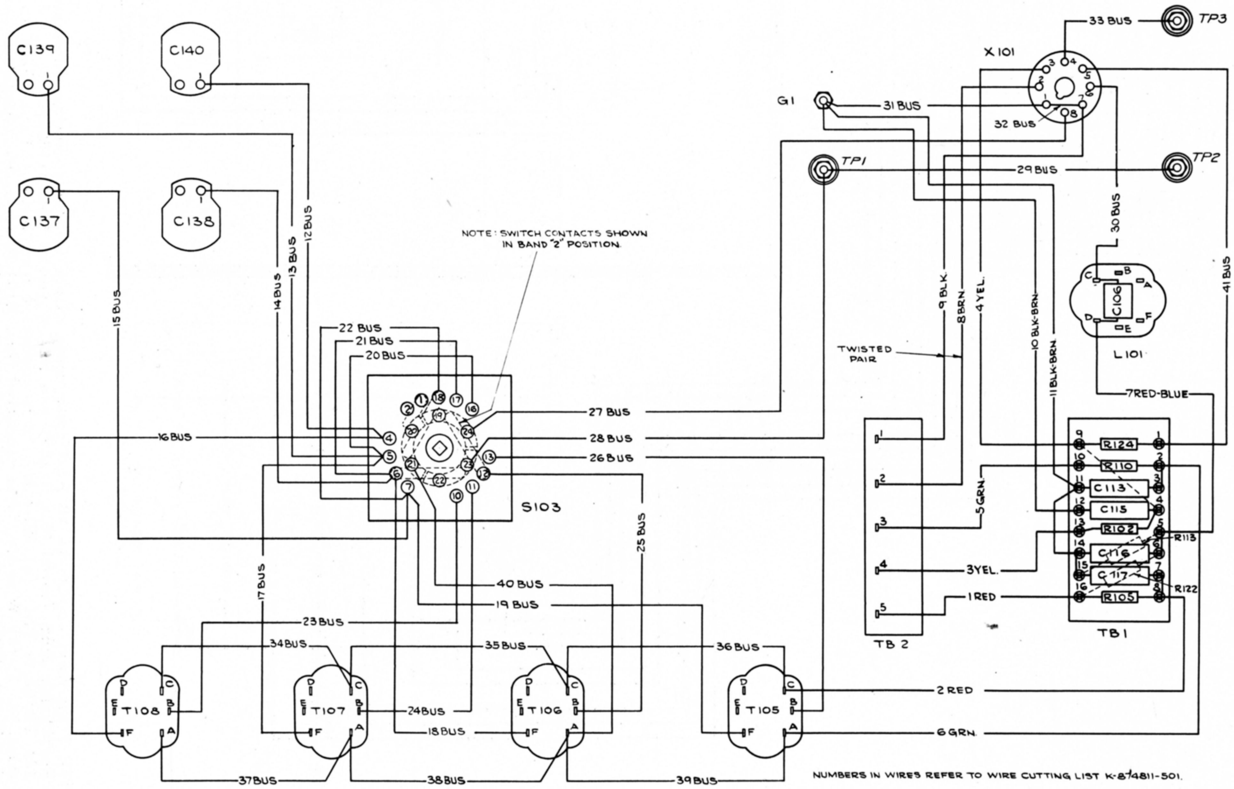


Figure 7-22 — Model RBB Radio Receiver, First R-F Box (Connection Diagram, P-721522)

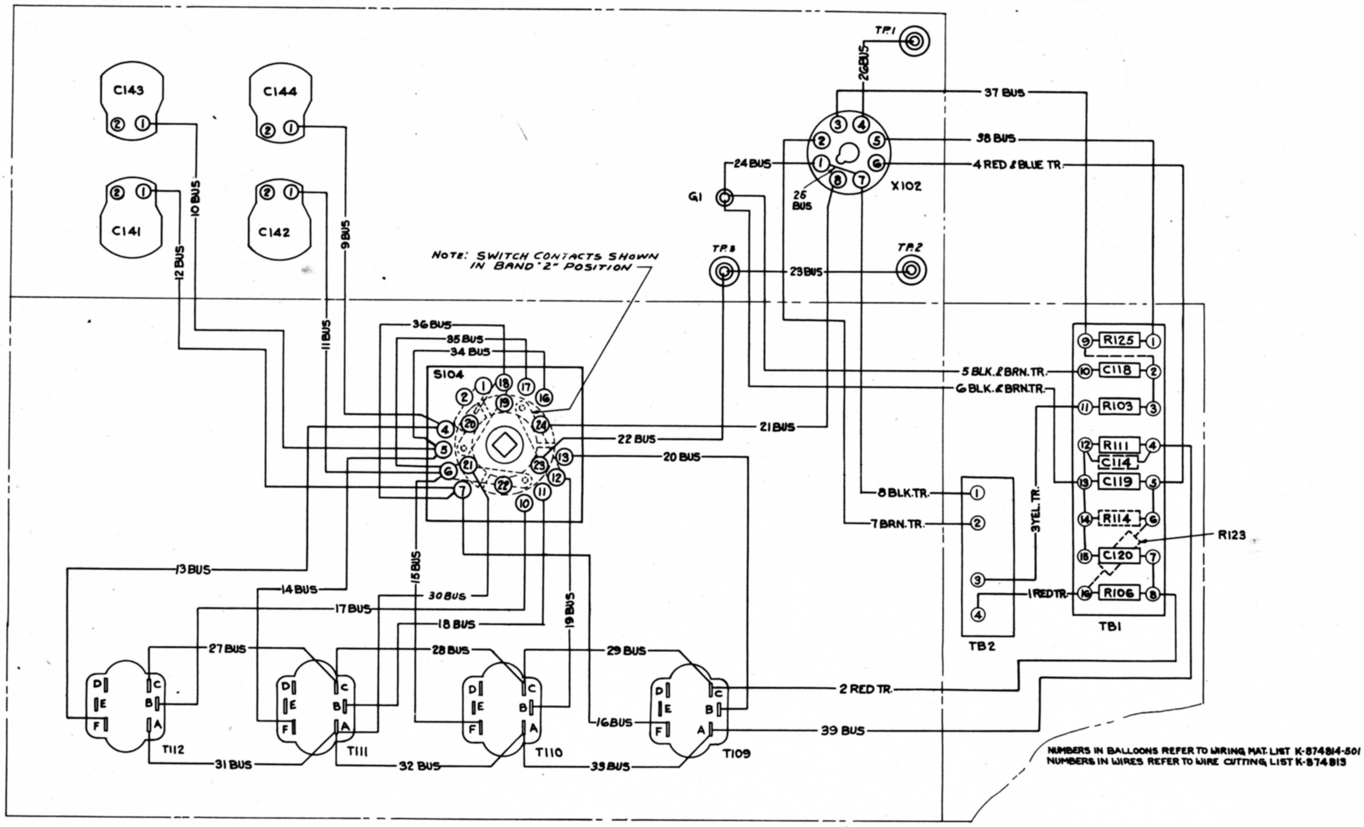


Figure 7-23 — Model RBB Radio Receiver, Second R-F Box (Connection Diagram, P-721530)

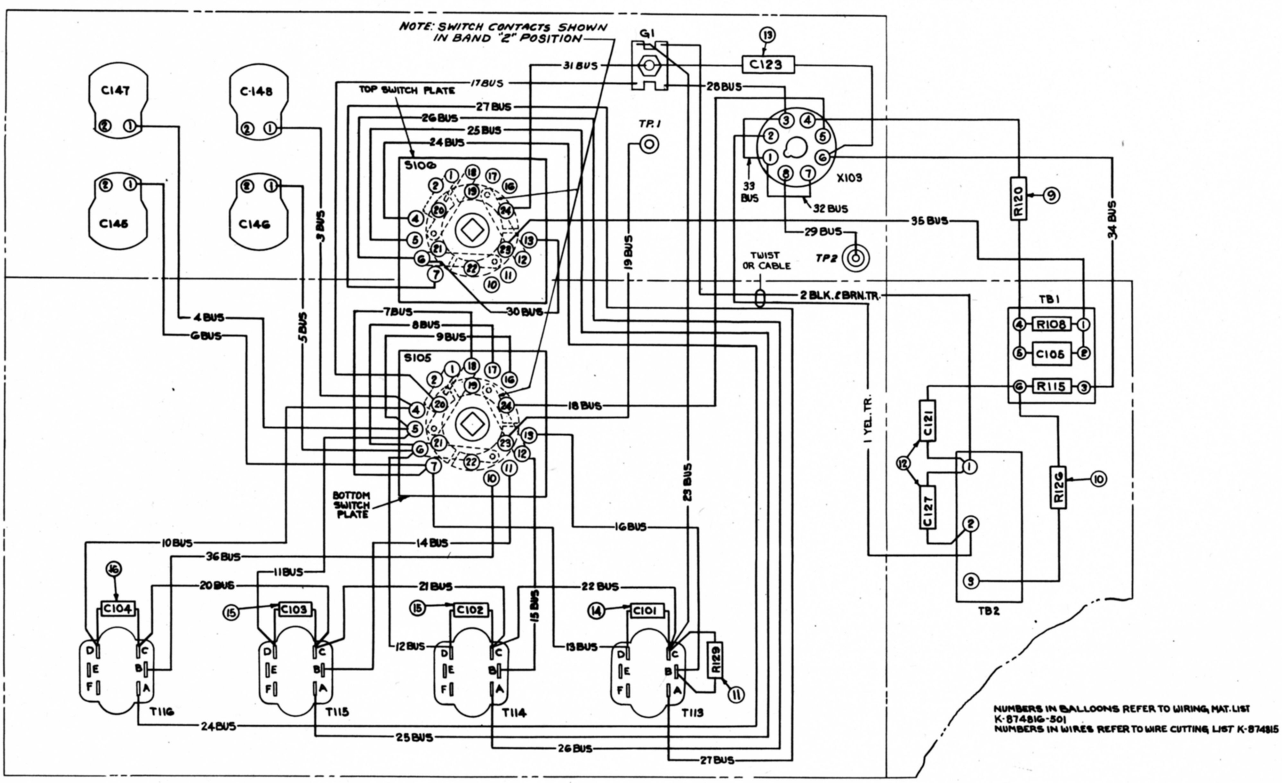


Figure 7-24 — Model RBB Radio Receiver, Oscillator Box (Connection Diagram, P-721527)

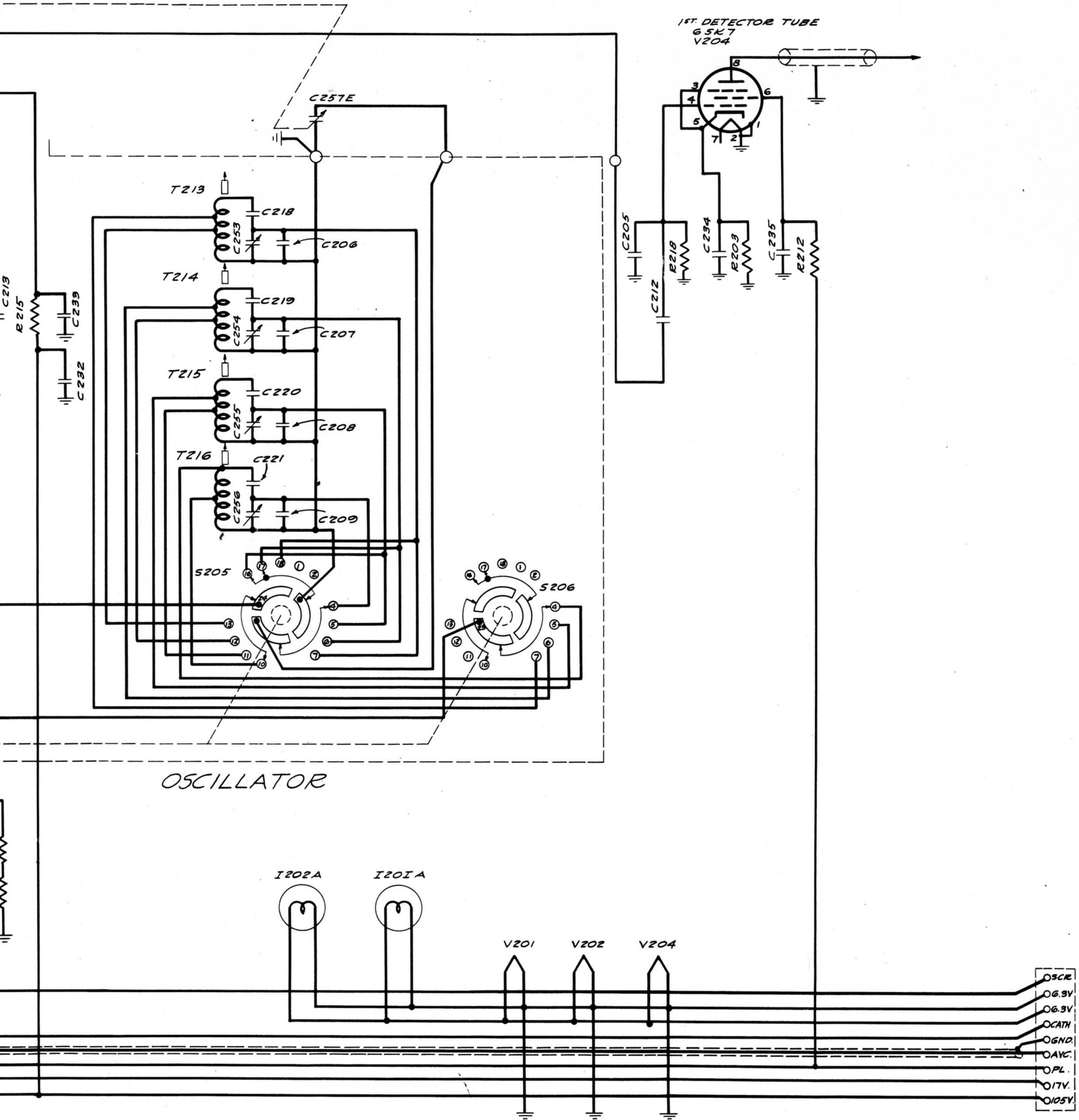
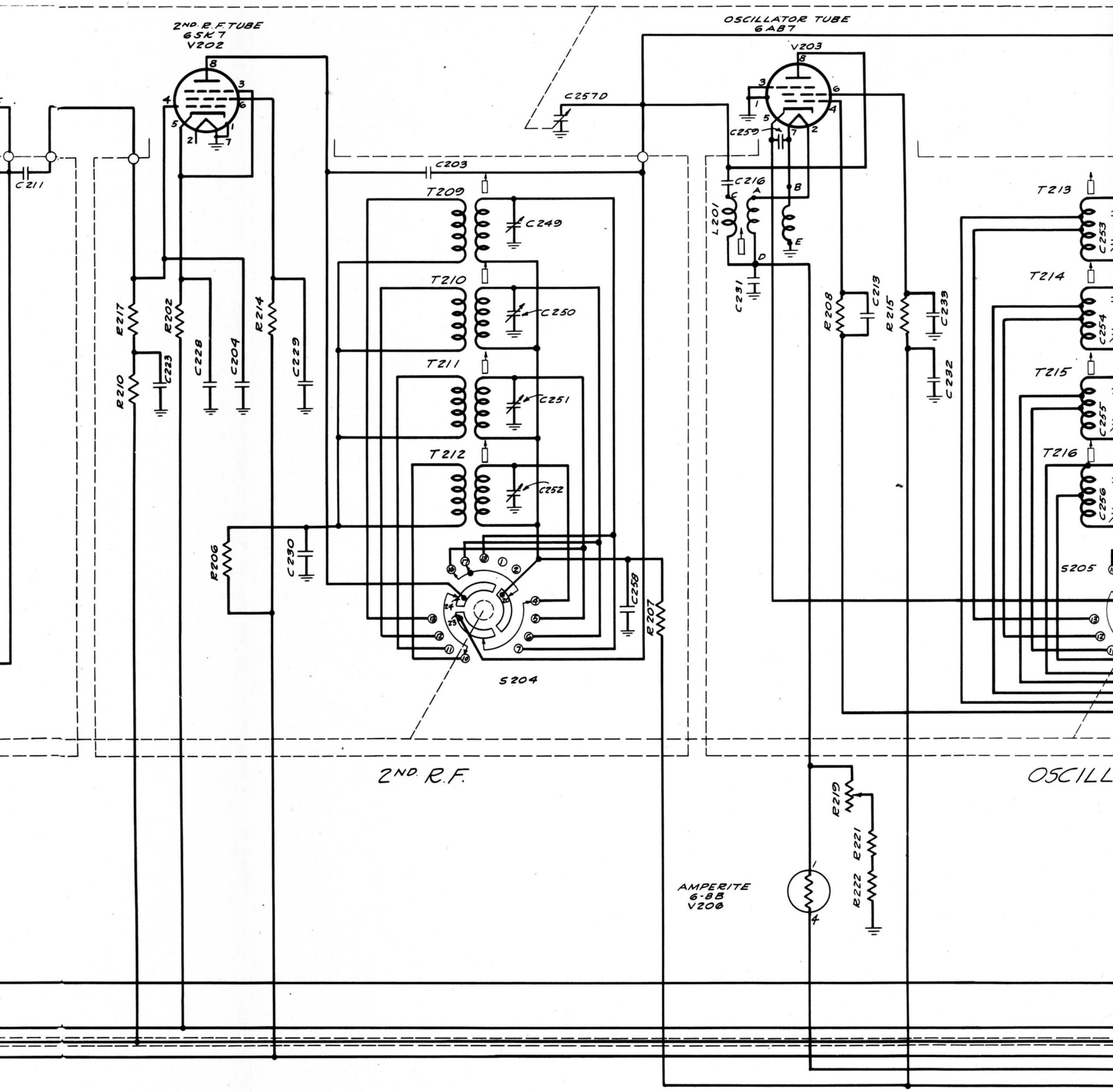
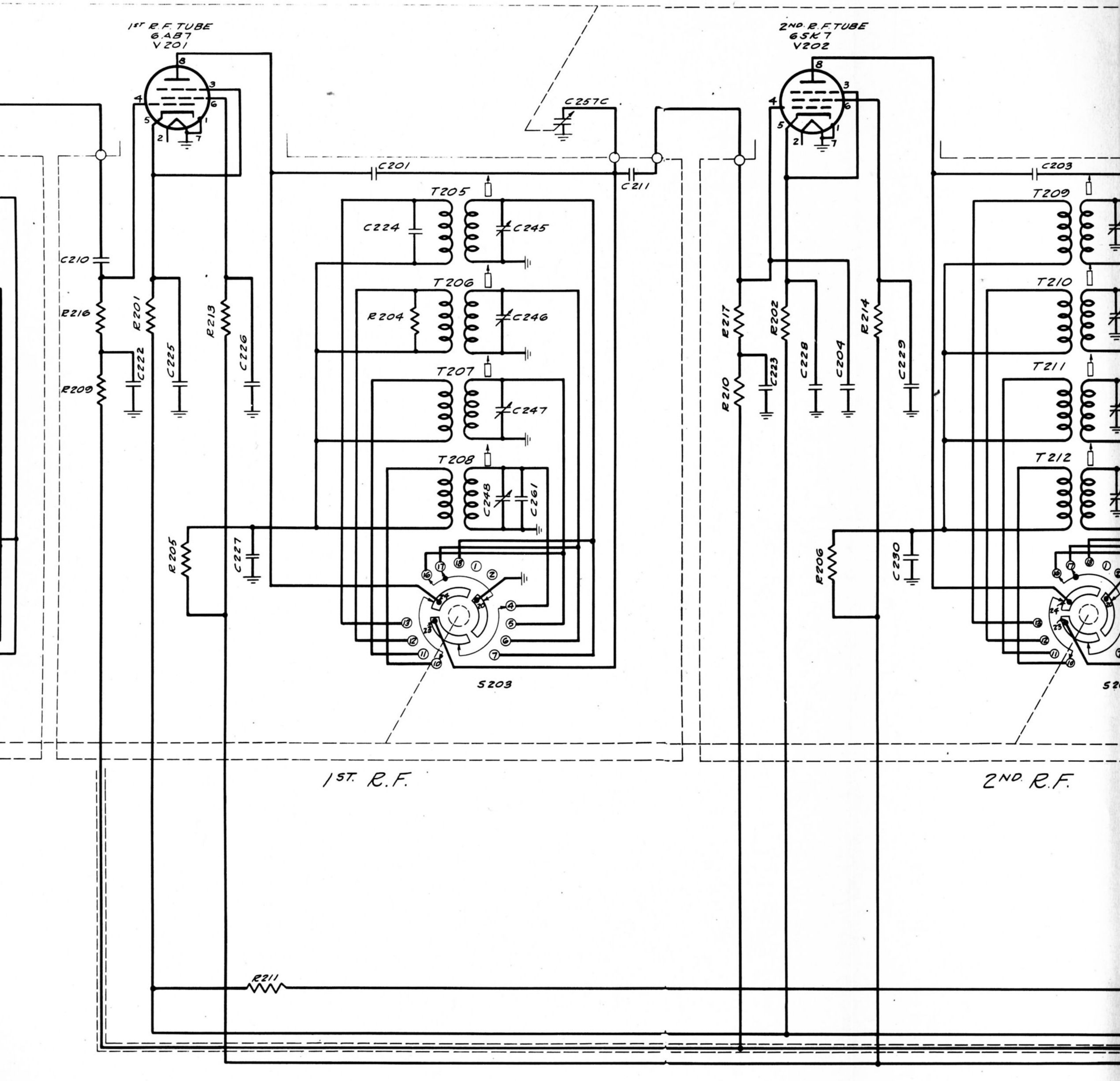
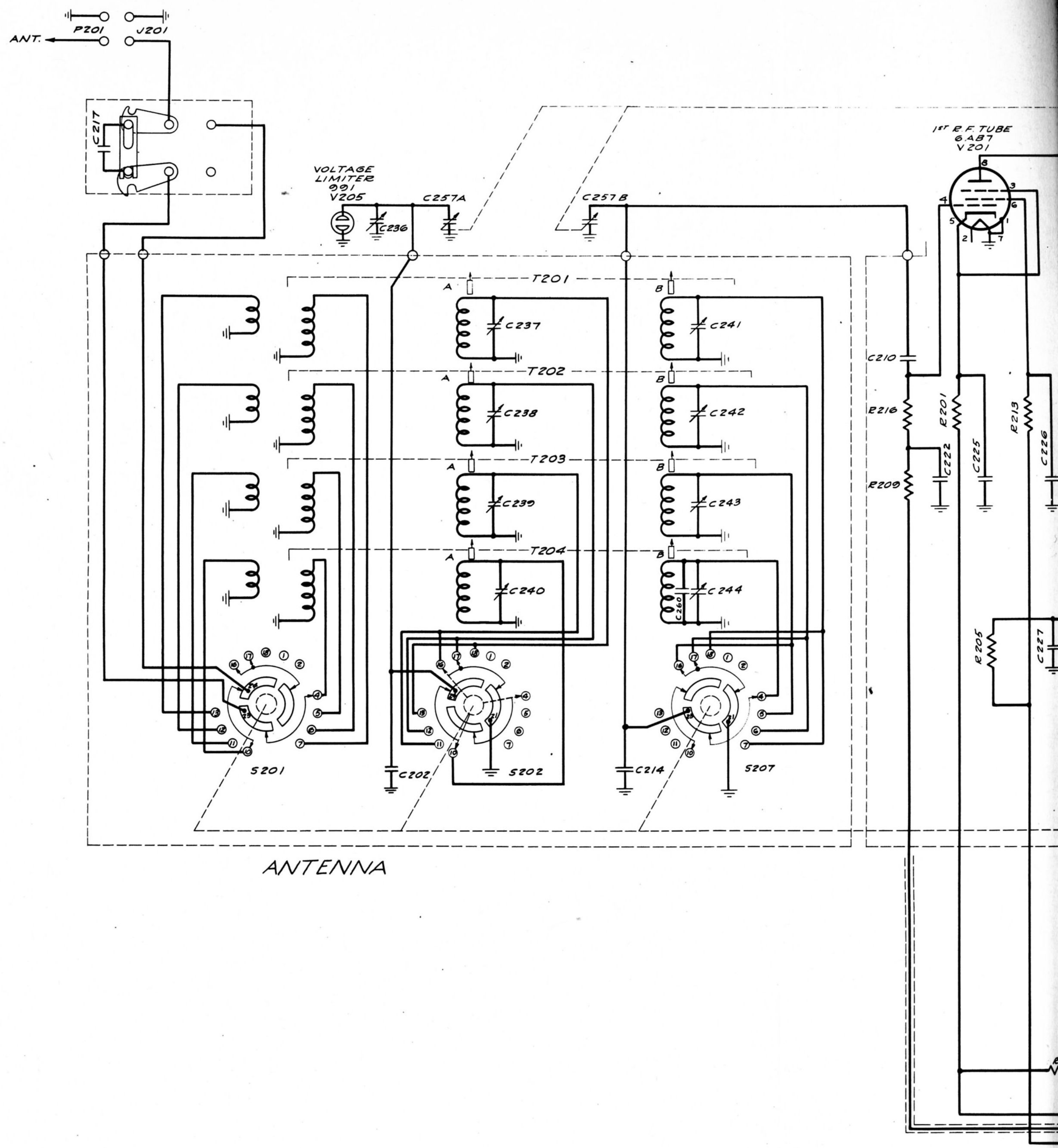


Figure 7-25 — Model RBC Radio Receiver, Preselector Unit (Schematic, TTX-262838)


2ND R.F. TUBE
6SK7
V202
OSCILLATOR TUBE
6AB7
V203
C211
R217
R210
C223
R202
C228
C204
R214
C229
C257D
C203
T209
C249
T210
C250
T211
C251
T212
C252
R206
C230
C258
R207
S204
C259
C216
L201
C231
R208
C213
R215
C233
C232
T213
C253
T214
C254
T215
C255
T216
C256
S205
2ND R.F.
OSCILL
R219
R221
R222
AMPERITE
6-8B
V206

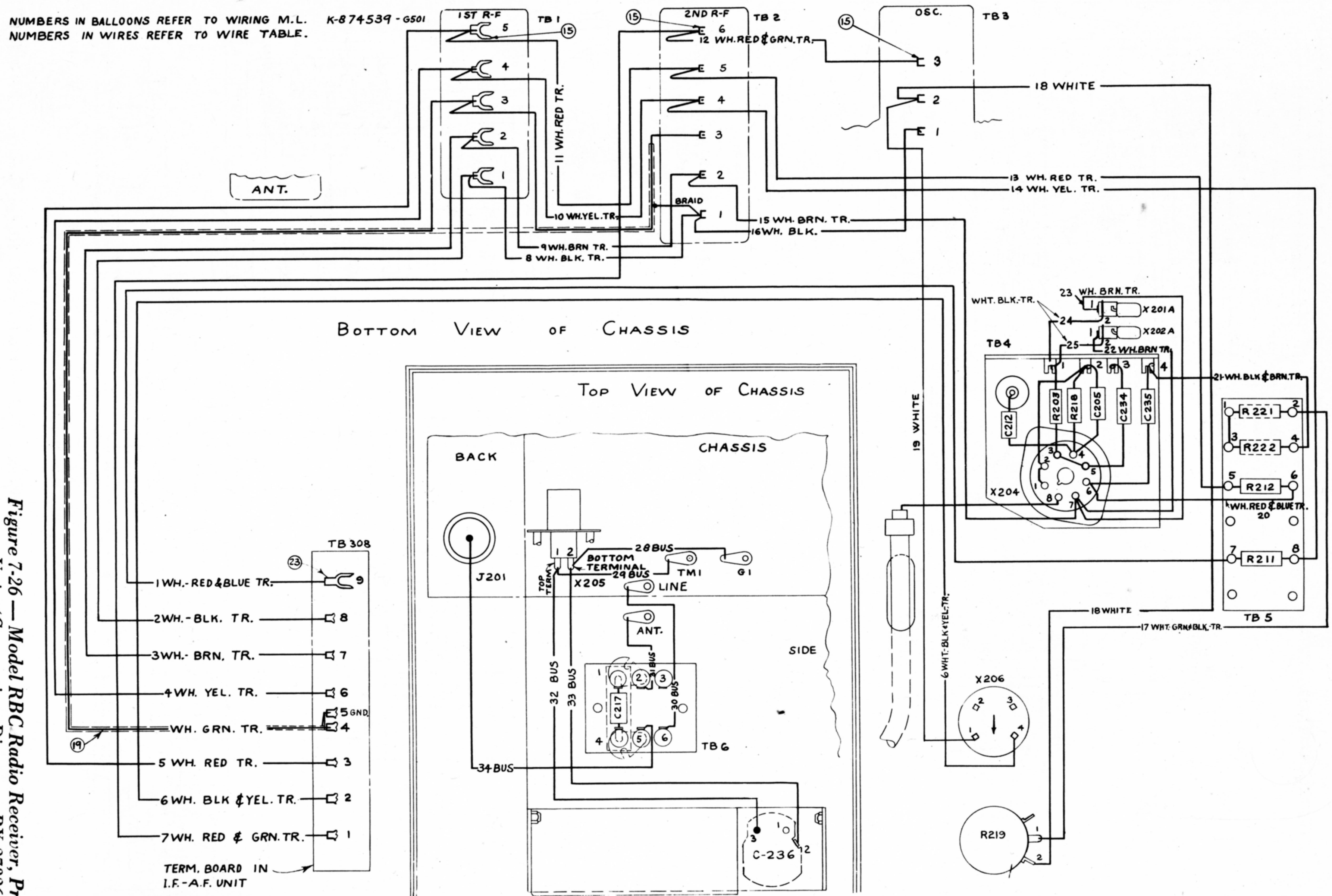


1ST R.F. TUBE
6AB7
V201
2ND R.F. TUBE
6SK7
V202
C257C
C201
C211
C203
T205
T206
T207
T208
T209
T210
T211
T212
C224
C245
R204
C246
C247
C248
C261
C210
R216
R209
R201
R213
C222
C225
C226
R205
C227
S203
R217
R210
R202
R214
C223
C228
C204
C229
R206
C230
R211
1ST. R.F.
2ND. R.F.



ANT.
P201
J201
C217
VOLTAGE LIMITER 991 V205
C236
C257A
C257B
1ST R.F. TUBE 6AB7 V201
T201
T202
T203
T204
C237
C238
C239
C240
C241
C242
C243
C244
C260
C210
R216
R209
C222
R201
C225
R213
C226
R205
C227
S201
S202
S207
C202
C214
ANTENNA

Figure 7-25 — Model RBC Radio Receiver, Preselector Unit (Schematic, TTX-262838)



NOTE: This dwg. applies to all RBC equipments except for the following differences:

a. For Models RBC (serial Nos. 1-125) and RBC-1 (serial Nos. 1-1000).
(1) TB308 is TB1; (2) Wire No. 23 is connected from X204, term. No. 7 to X201-A, term. No. 1; (3) Wire No. 24 is connected from X201-A, term. No. 2 to TB4 term. No. 1.

b. For Models RBC (serial Nos. 1-125), RBC-1 (serial Nos. 1-2839), and RBC-2 (Contract NXss-17001, serial Nos. 1012).
(1) Wire No. 23 is connected from X201-A, term. No. 1 to X202-A, term. No. 1; (2) Wire No. 24 is connected from X201-A, term No. 2 to X202-A, term. No. 2; (3) Wire No. 19 is connected from R219, term. No. 2 to X206, term. No. 1; (4) Wire No. 32 is connected to C236, term. No. 1.

Figure 7-26 — Model RBC Radio Receiver, Preselector Unit (Connection Diagram, PX-273261)

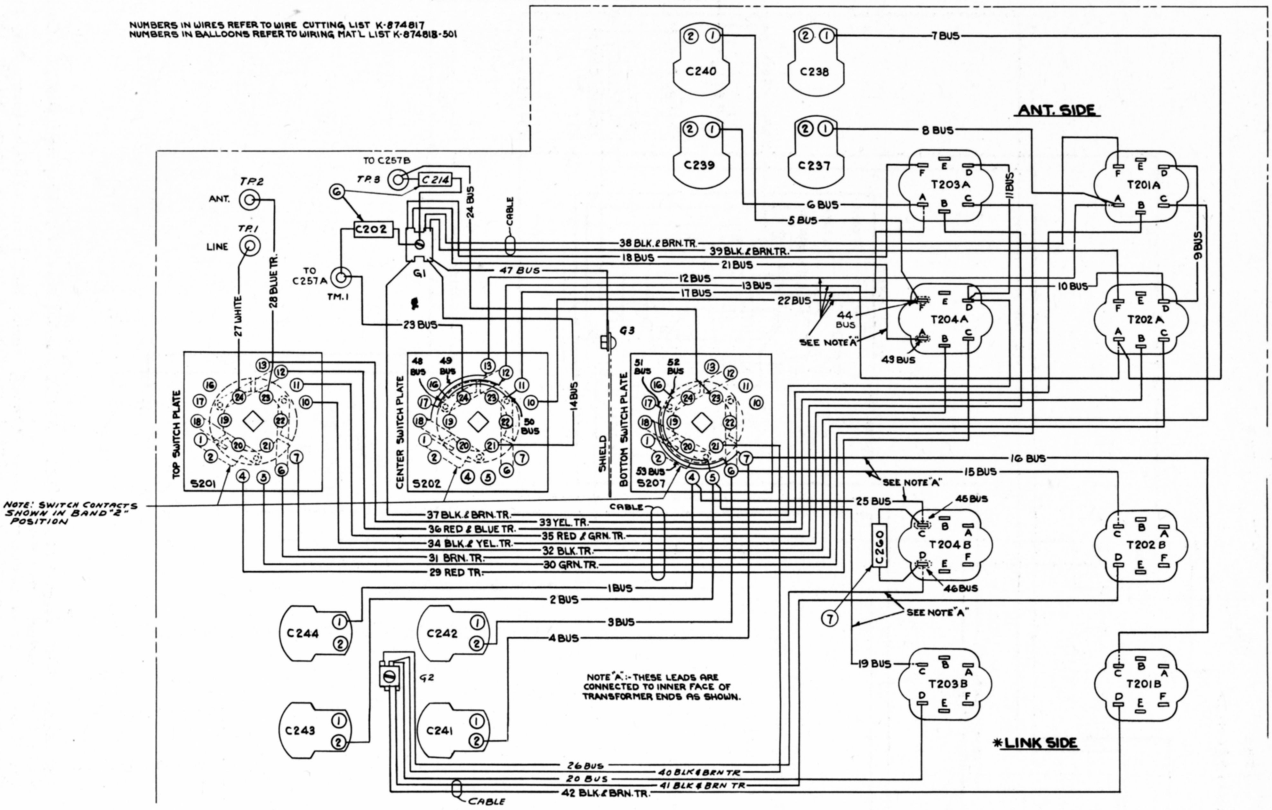


Figure 7-27 — Model RBC Radio Receiver, Antenna Box (Connection Diagram, P-721520)

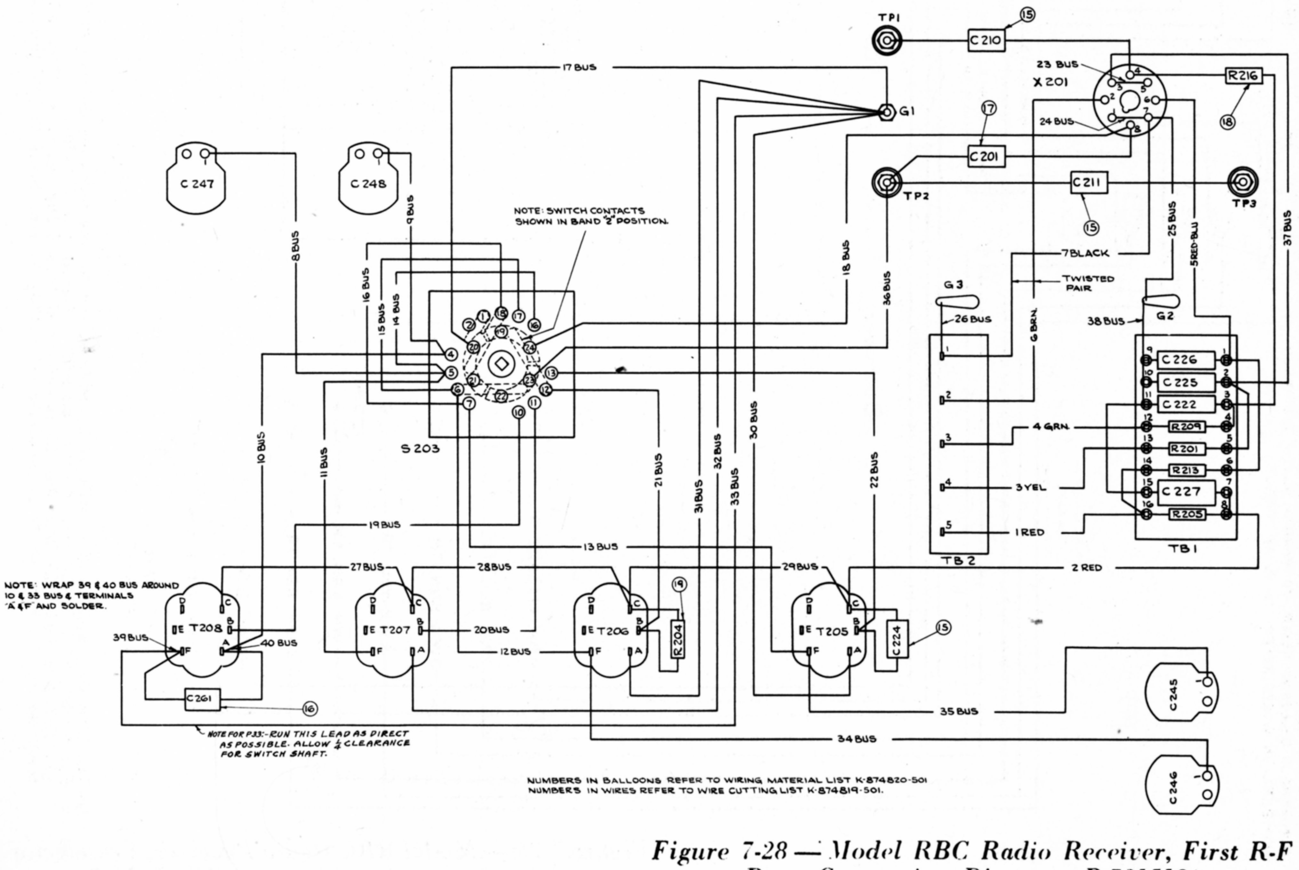


Figure 7-28 — Model RBC Radio Receiver, First R-F Box (Connection Diagram, P-721519)

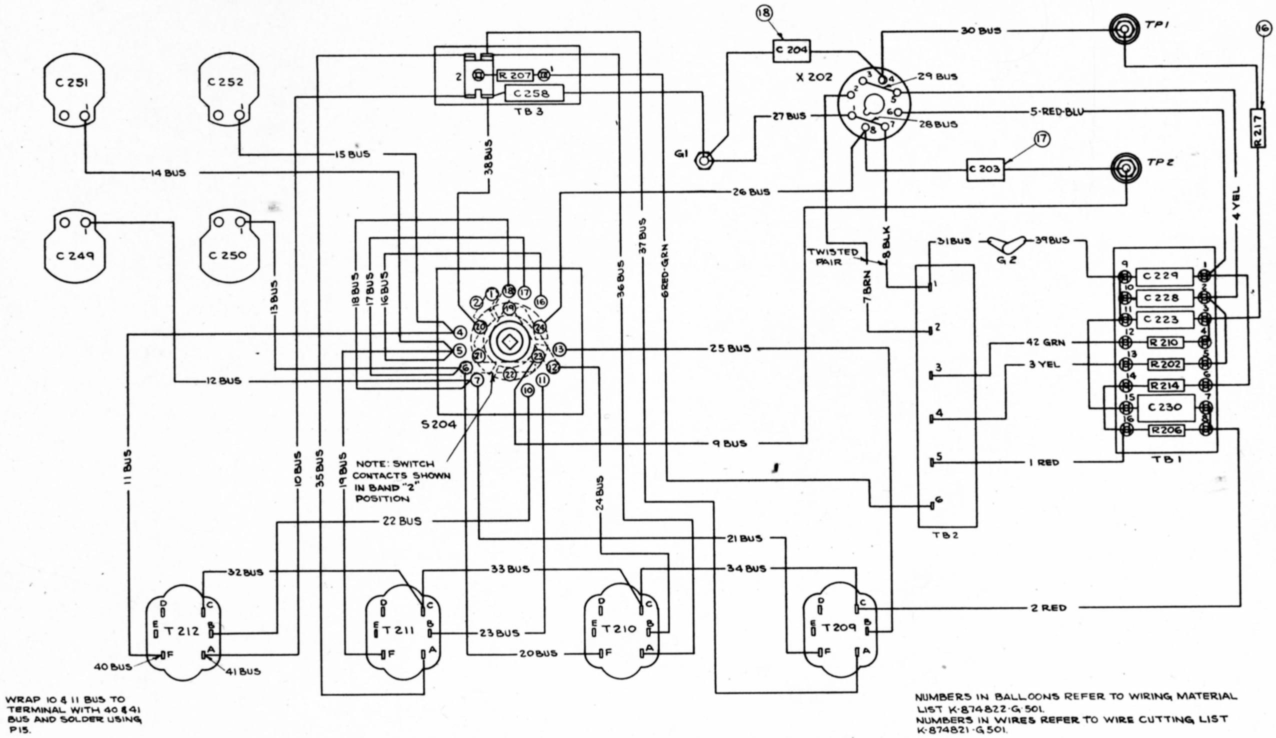


Figure 7-29 — Model RBC Radio Receiver, Second R-F Box (Connection Diagram, P-721517)

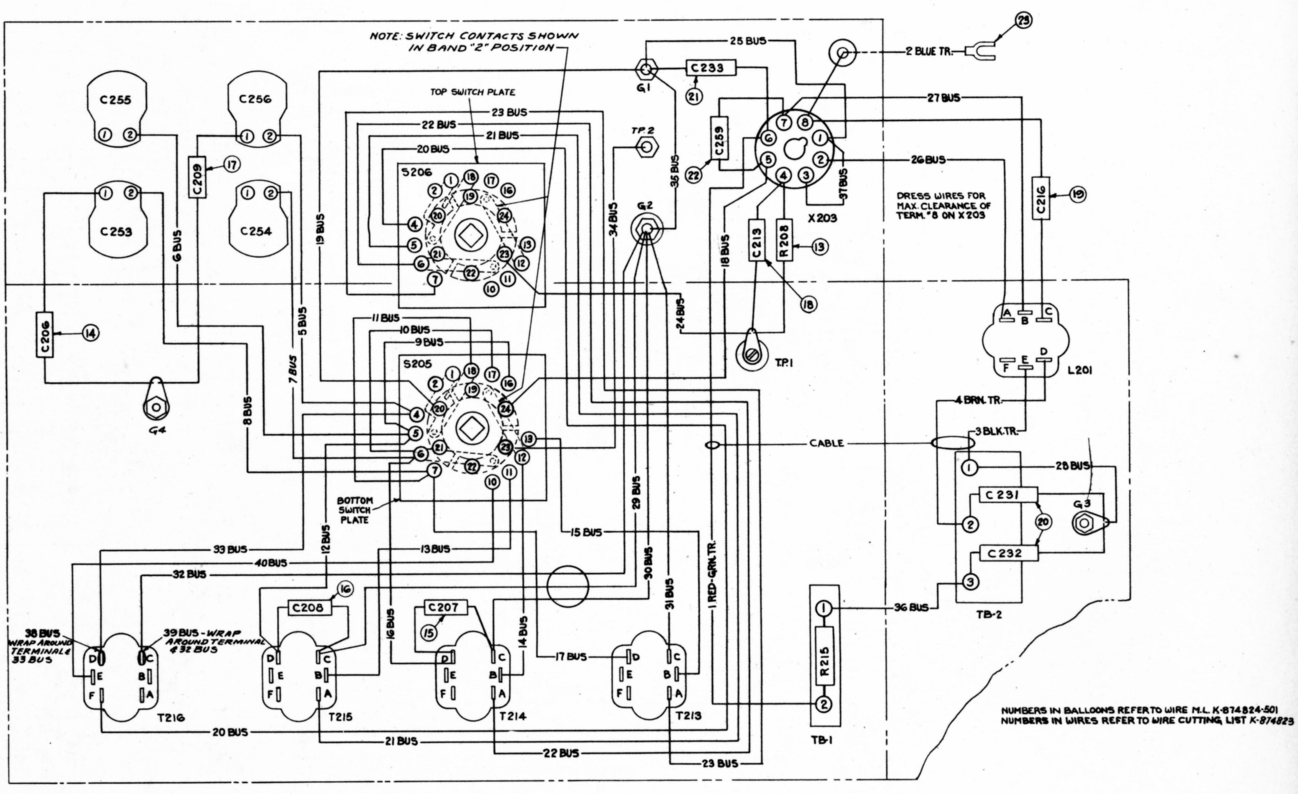
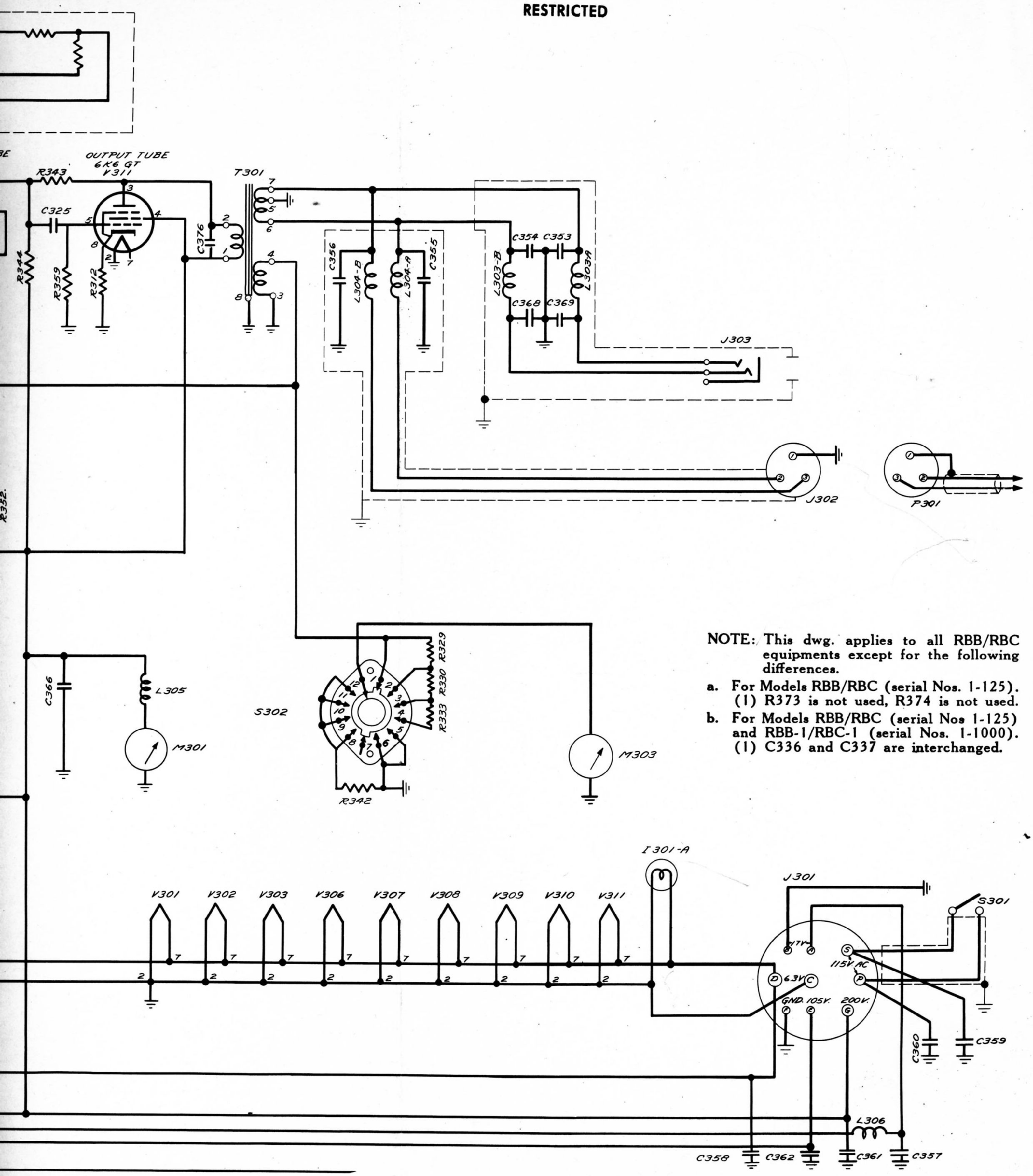


Figure 7-30 — Model RBC Radio Receiver, Oscillator Box (Connection Diagram, P-721518)

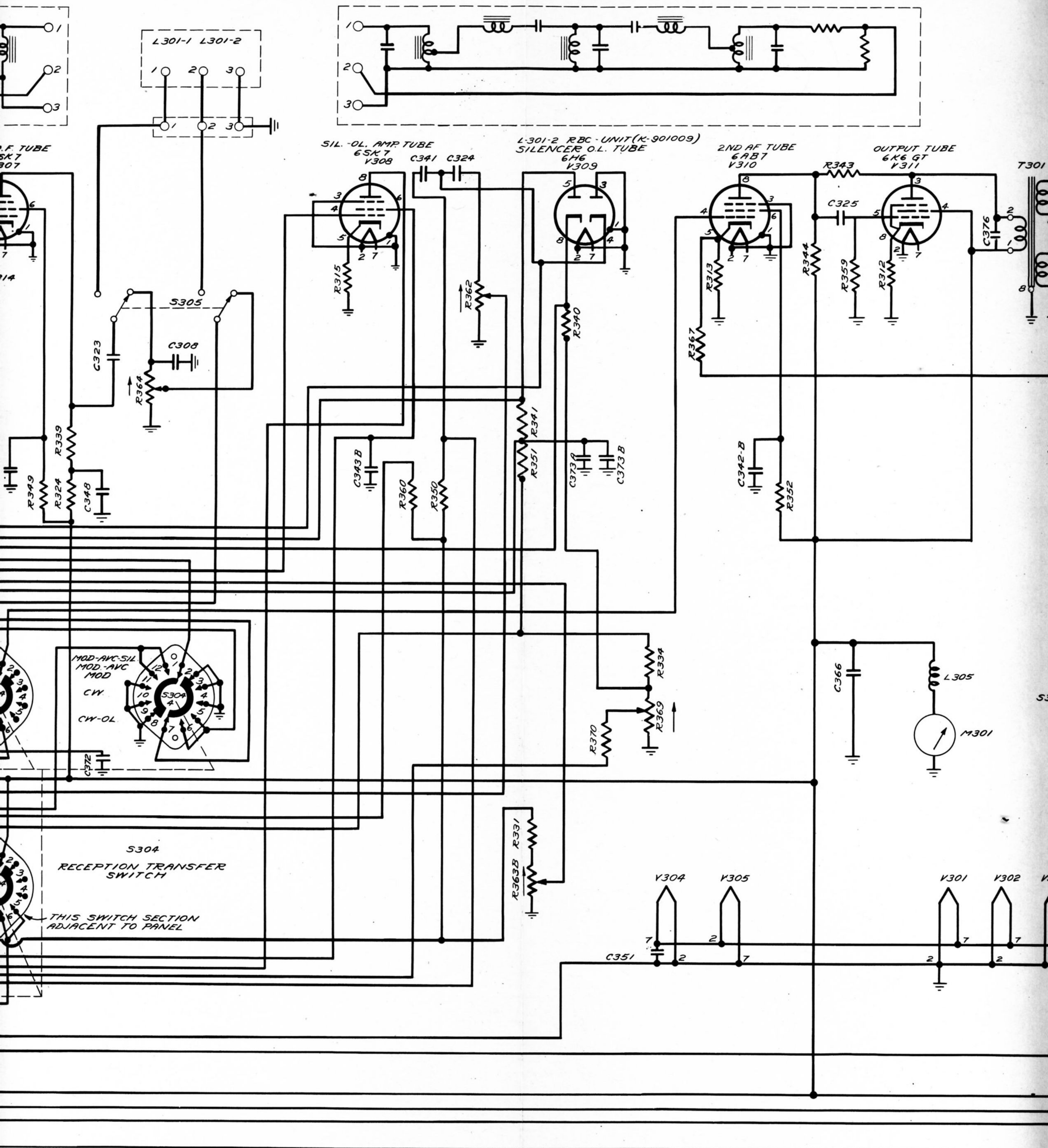


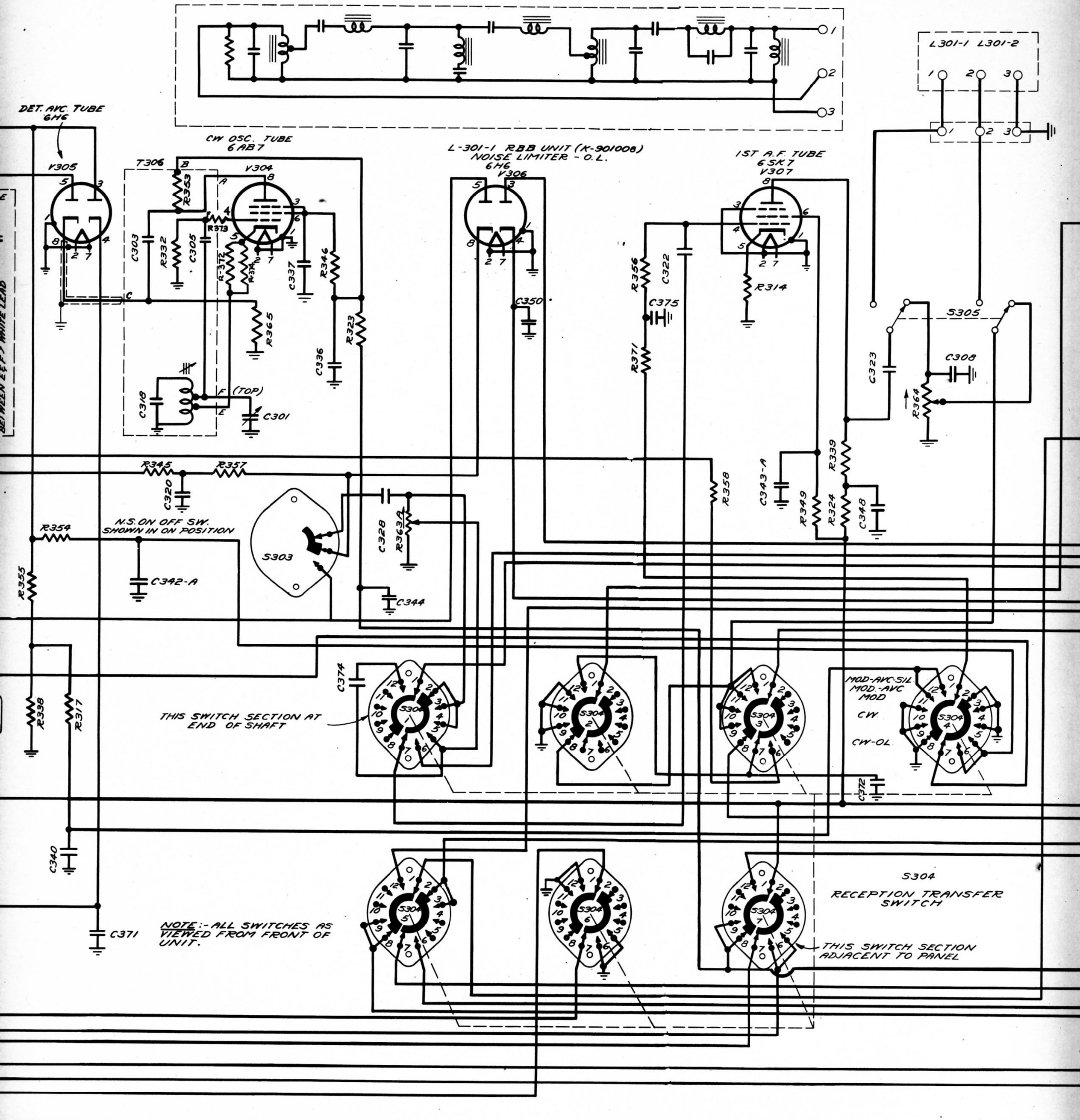
NOTE: This dwg. applies to all RBB/RBC equipments except for the following differences.

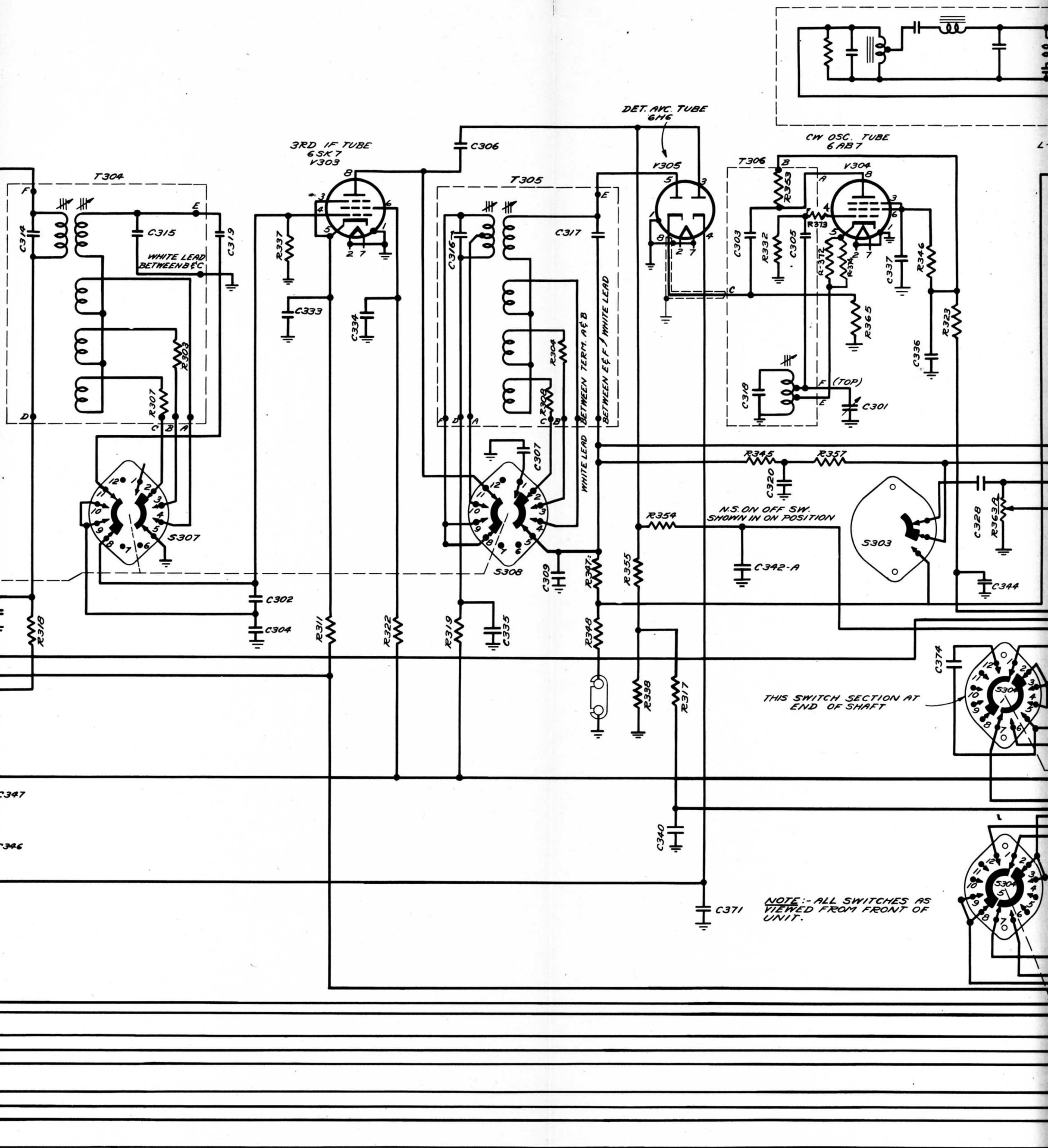
a. For Models RBB/RBC (serial Nos. 1-125).
(1) R373 is not used, R374 is not used.

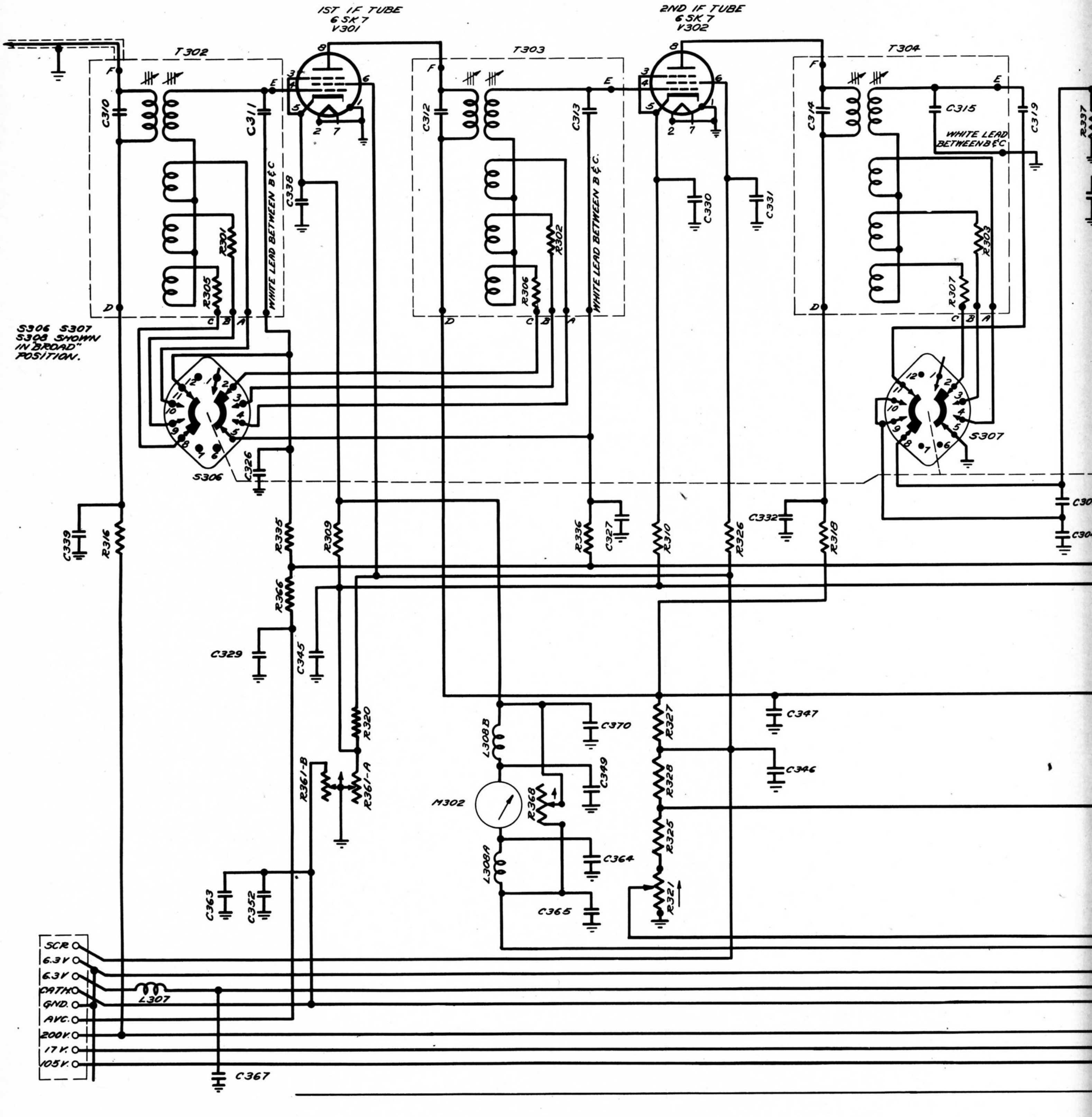
b. For Models RBB/RBC (serial Nos 1-125) and RBB-1/RBC-1 (serial Nos. 1-1000).
(1) C336 and C337 are interchanged.

Figure 7-31 — Models RBB/RBC Radio Receivers, I-F/A-F Unit (Schematic, TTX-262842)


L301-1 L301-2
SIL.-OL. AMP. TUBE
6SK7
V308
C341
C324
L-301-2 RBC-UNIT (K-901009)
SILENCER O.L. TUBE
6H6
V309
2ND AF TUBE
6AB7
V310
R343
OUTPUT TUBE
6K6 GT
V311
T301
C325
C376
R315
R362
R344
R313
R359
R312
R367
S305
C323
C308
R364
R340
R341
R351
C373 A
C373 B
C343 B
R360
R350
C342-B
R352
R339
R349
R324
C348
MOD-AVC-SIL
MOD.-AVC
MOD
CW.
CW-OL.
S304
C372
R334
R369
R370
C366
L305
M301
R331
R363B
S304
RECEPTION TRANSFER
SWITCH
THIS SWITCH SECTION
ADJACENT TO PANEL
V304
V305
V301
V302
C351


DET. AVC. TUBE 6H6
V305
CW OSC. TUBE 6AB7
V304
T306
R353
R373
R332
R372
R374
R346
R365
R323
C303
C305
C337
C336
C318
F (TOP)
C301
L-301-1 RBB UNIT (K-901008)
NOISE LIMITER - O.L.
6H6
V306
C350
1ST A.F. TUBE
6SK7
V307
R356
C322
C375
R371
R314
L301-1 L301-2
S305
C323
C308
R364
R339
R324
R349
C343-A
C348
R345
R357
C320
R358
R354
N.S. ON OFF SW.
SHOWN IN ON POSITION
C342-A
S303
C328
R363A
C344
R355
R338
R317
C374
THIS SWITCH SECTION AT END OF SHAFT
MOD-AVC-SIL
MOD.-AVC
MOD
CW
CW-OL
C372
C340
C371
NOTE:- ALL SWITCHES AS VIEWED FROM FRONT OF UNIT.
S304
RECEPTION TRANSFER SWITCH
THIS SWITCH SECTION ADJACENT TO PANEL


T304
F
C314
C315
E
C319
WHITE LEAD BETWEEN B&C
D
R303
R307
C B A
S307
C302
C304
R318
3RD IF TUBE
6SK7
V303
R337
C333
C334
R311
R322
C306
T305
C317
C316
R304
R308
A D A
BETWEEN TERM. A&B
BETWEEN E&F / WHITE LEAD
WHITE LEAD
C307
S308
C309
R319
C335
R347
R348
DET. AVC. TUBE
6H6
V305
R355
R338
R317
R354
N.S. ON OFF SW.
SHOWN IN ON POSITION
C342-A
R345
R357
C320
S303
CW OSC. TUBE
6AB7
V304
T306
R363
R373
C303
R332
C305
R-372
R374
C337
R346
R365
R323
C336
C318
F (TOP)
E
C301
C328
R363A
C344
C374
THIS SWITCH SECTION AT END OF SHAFT
S304
C340
C371
NOTE:- ALL SWITCHES AS VIEWED FROM FRONT OF UNIT.
C347
C346



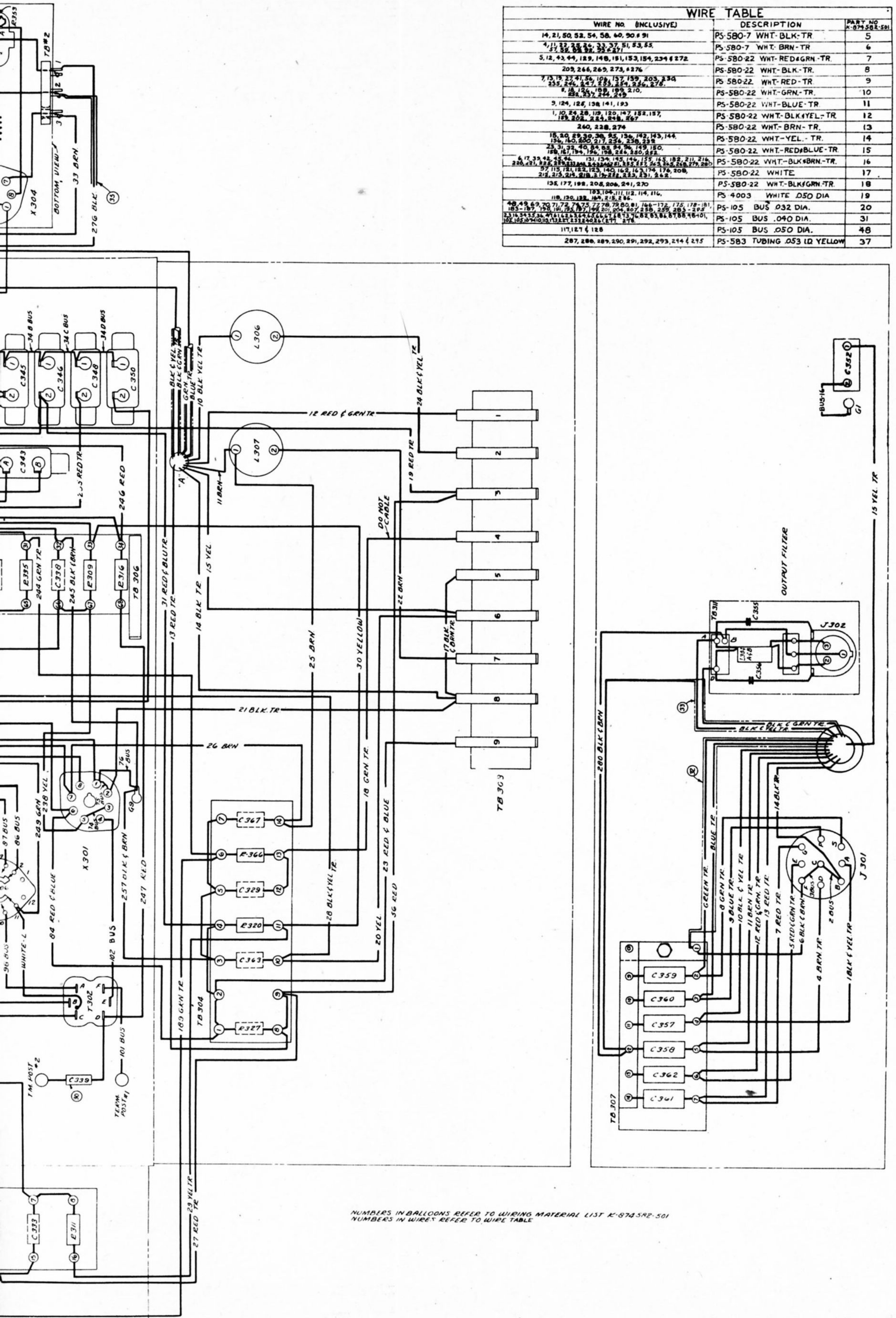
1ST IF TUBE
6SK7
V301
2ND IF TUBE
6SK7
V302
T302
T303
T304
WHITE LEAD BETWEEN B & C
WHITE LEAD BETWEEN B&C.
WHITE LEAD BETWEEN B&C
S306 S307 S308 SHOWN IN "BROAD" POSITION.
S306
S307
C310
C311
C312
C313
C314
C315
C319
C338
C330
C331
C326
C327
C332
C339
C329
C345
C347
C370
C349
C346
C364
C365
C363
C352
C367
R301
R302
R303
R305
R306
R307
R316
R335
R309
R336
R310
R326
R318
R366
R320
R361-B
R361-A
R368
R327
R328
R325
R321
M302
L308B
L308A
L307
SCR.
6.3V
6.3V
CATH.
GND.
AVC.
200V.
17V.
105V.

NOTE: This dwg. applies to all RBB/RBC equipments except for the following differences.

a. For Models RBB/RBC (serial Nos. 1-125). (1) R373 is not used, R374 is not used.

b. For Models RBB/RBC (serial Nos 1-125) and RBB-1/RBC-1 (serial Nos. 1-1000). (1) C336 and C337 are interchanged.

Figure 7-31 — Models RBB/RBC Radio Receivers, I-F/A-F Unit (Schematic, TTX-262842)



WIRE TABLE

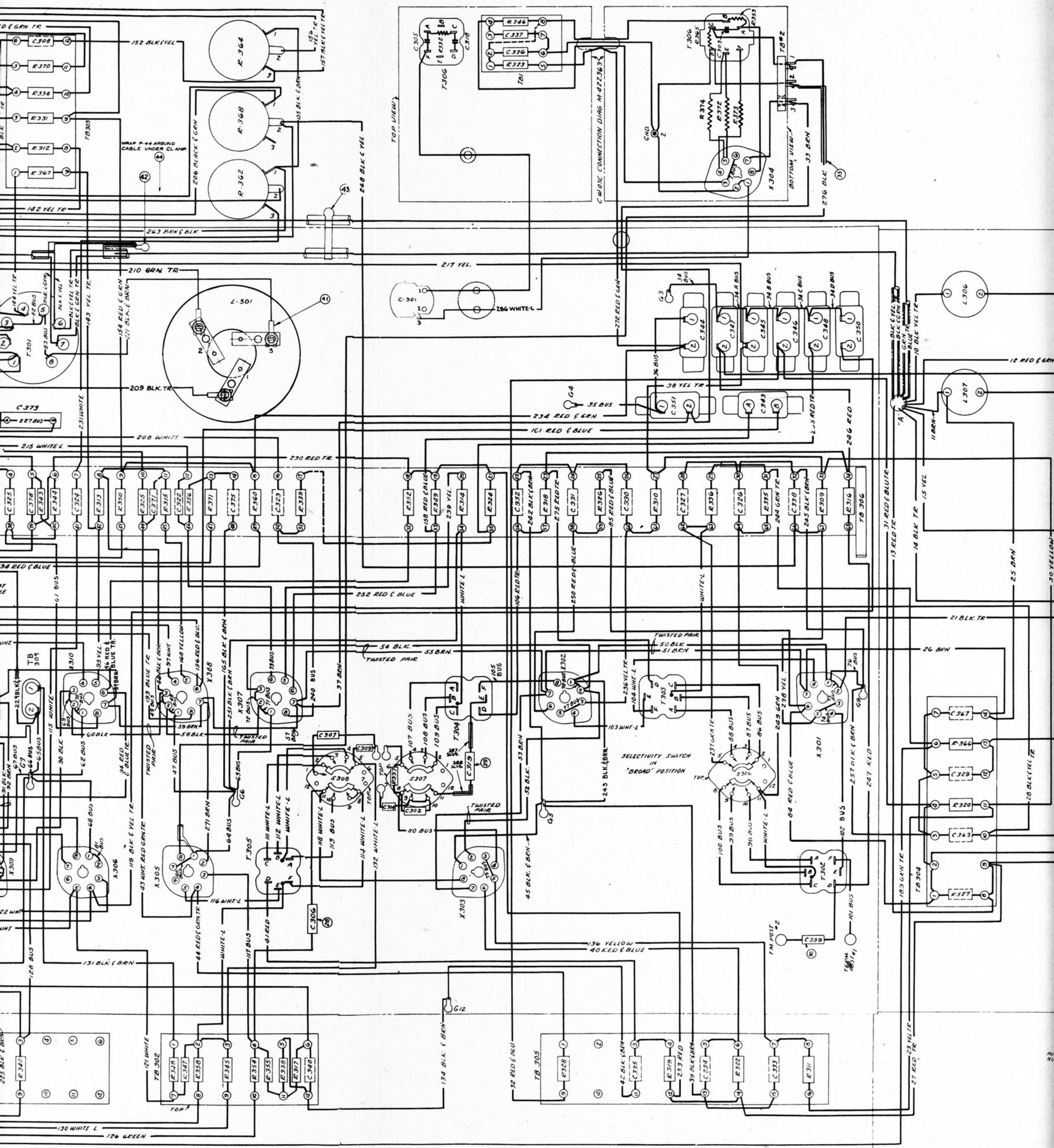
WIRE NO. (INCLUSIVE)	DESCRIPTION	PART NO K-874582-501
14, 21, 50, 52, 54, 58, 60, 90 & 91	PS-580-7 WHT-BLK-TR	5
4, 11, 22, 25, 26, 33, 37, 51, 53, 55, 57, 59, 62, 92, 93 & 271	PS-580-7 WHT-BRN-TR	6
5, 12, 43, 44, 129, 148, 151, 153, 154, 234 & 272	PS-580-22 WHT-RED&GRN-TR.	7
209, 266, 269, 273, & 276	PS-580-22 WHT-BLK.-TR.	8
7, 13, 19, 27, 41, 56, 106, 137, 139, 203, 230, 235, 246, 247, 253, 254, 256, 275.	PS 580-22 WHT-RED-TR	9
8, 18, 124, 188, 189, 210, 232, 237, 244, 249	PS-580-22 WHT.-GRN.-TR.	10
9, 124, 125, 138, 141, 193	PS-580-22 WHT-BLUE-TR	11
1, 10, 24, 28, 119, 120, 147, 152, 157, 159, 202, 224, 248, 267	PS-580-22 WHT.-BLK&YEL.-TR.	12
260, 228, 274	PS-580-22 WHT.-BRN.-TR.	13
15, 20, 29, 30, 38, 95, 136, 142, 143, 144, 156, 160, 200, 217, 236, 238, 239	PS-580-22 WHT.-YEL.-TR.	14
23, 31, 32, 40, 84, 85, 94, 96, 149, 150, 158, 161, 194, 196, 198, 226, 250, 252	PS-580-22 WHT.-RED&BLUE-TR.	15
6, 17, 39, 42, 45, 46, 131, 134, 145, 146, 155, 165, 182, 211, 216, 220, 221, 225, 229, 233, 242, 243, 246, 251, 255, 257, 263, 265, 268, 279, 280	PS-580-22 WHT.-BLK&BRN.-TR.	16
97, 115, 121, 122, 123, 140, 162, 163, 174, 176, 208, 212, 213, 214, 218, 219, 222, 223, 231, 262.	PS-580-22 WHITE	17
135, 177, 192, 205, 206, 241, 270	PS-580-22 WHT.-BLK&GRN.-TR.	18
103, 104, 111, 112, 114, 116, 118, 130, 132, 164, 215, 286.	PS 4003 WHITE .050 DIA	19
48, 49, 69, 70, 71, 72, 74, 75, 77, 78, 79, 80, 81, 166-172, 175, 178-181, 183-187, 190, 191, 195, 197, 199, 201, 204, 207, 258, 259, 283-295	PS-105 BUS .032 DIA.	20
2, 3, 16, 34, 35, 36, 47, 61, 62, 63, 64, 65, 66, 67, 68, 73, 76, 82, 83, 86, 87, 88, 98-101, 102, 105, 107-110, 113, 173, 227, 233, 240, 261, 277, 278.	PS-105 BUS .040 DIA.	31
117, 127 & 128	PS-105 BUS .050 DIA.	48
287, 288, 289, 290, 291, 292, 293, 294 & 295	PS-583 TUBING .053 I.D. YELLOW	37

NOTE: This dwg. applies to all RBB/RBC equipments except for the following differences:

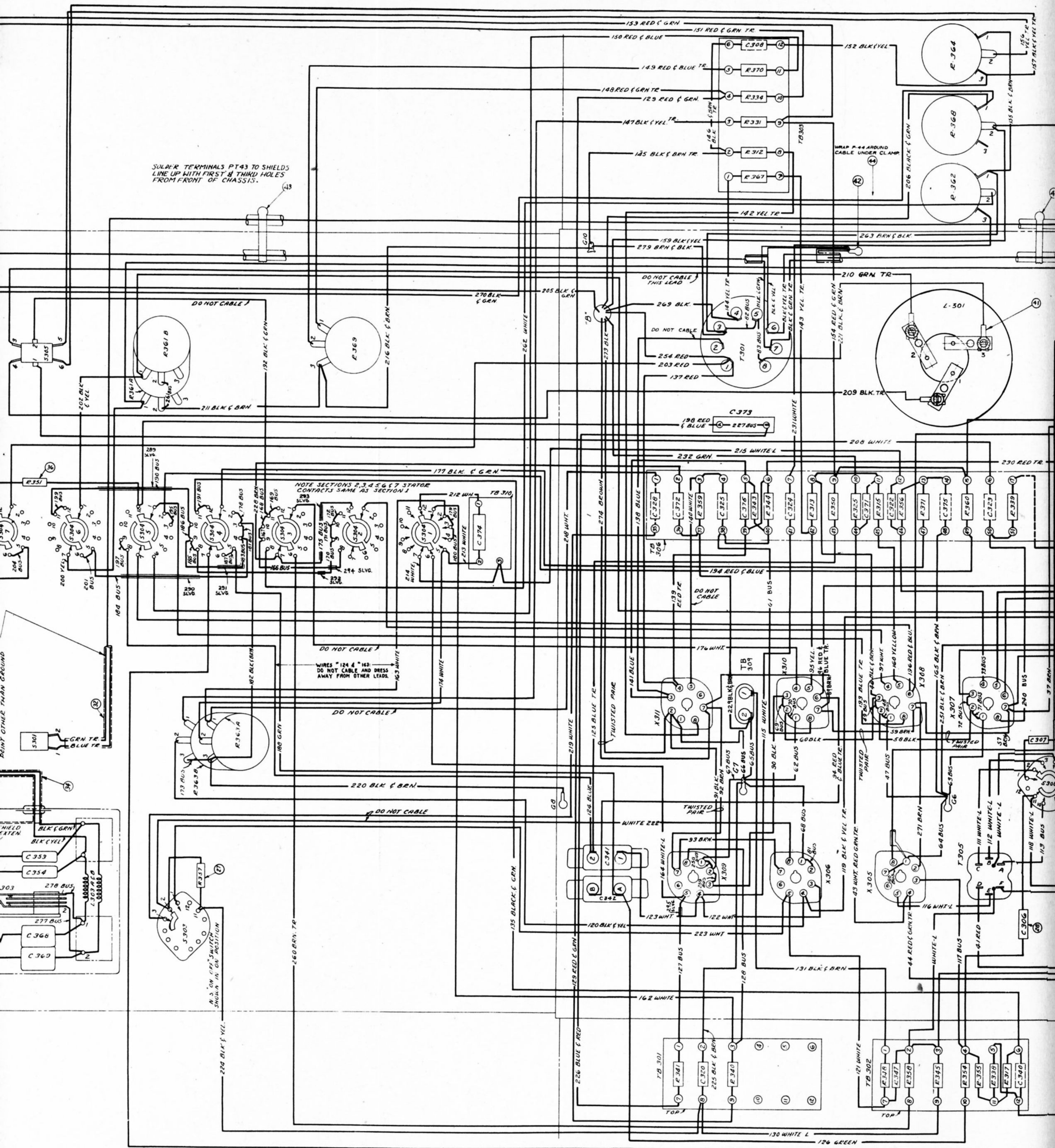
a. For Models RBB/RBC (serial Nos. 1-125). (1) Bus wire Nos. 282 to 285 inclusive are not used; (2) On TB304, lead between term. No. 8 and No. 9 is No. 133 bus; (3) Wire No. 14 is connected to term. "C" on J301; (4) Wire No. 233 is marked "bus"; (5) "White L" wire on T305 is connected to TB302, term. No. 3; (6) Wire No. 66 is marked "bus"; (7) Wire No. 127 is marked "White L"; (8) Wire No. 117 and No. 128 are marked "White L"; (9) R373 and R374 not used; (10) See also b. below.

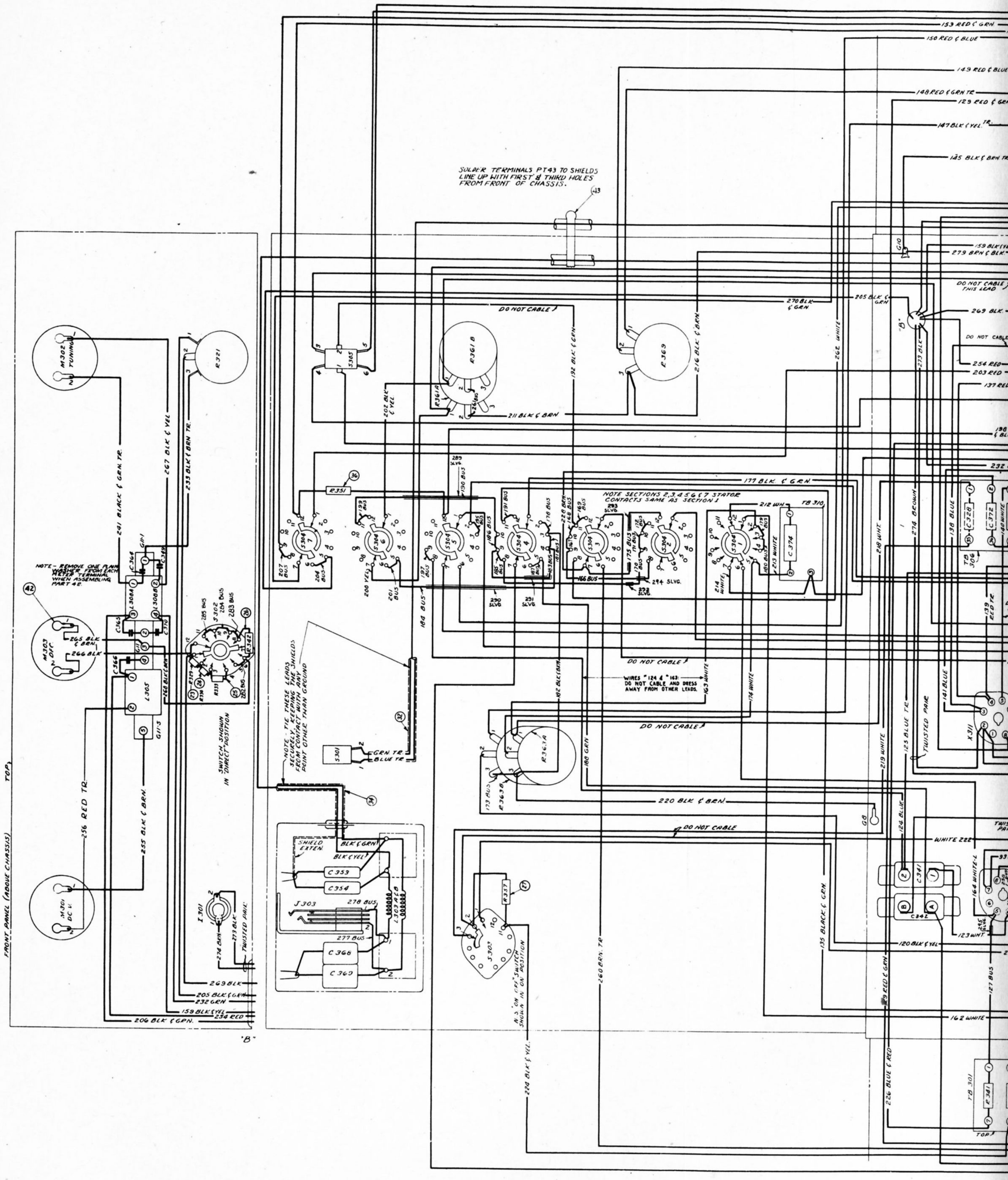
b. For Models RBB/RBC (serial Nos. 1-125) and RBB-1/RBC-1 (serial Nos. 1-1000). (1) G1 is located on CW oscillator shelf; (2) C301 is mounted on CW oscillator shelf; (3) C301, term. No. 3 is connected to G1 on CW oscillator shelf; (4) Wire No. 286 is not used; (5) In reference to C352 wire No. 15 is connected to term. No. 2 and wire No. 16 is connected to term. No. 1; (6) Wire No. 50 is connected to X302, term. No. 2 and wire No. 54 is connected to X302, term. No. 1; (7) Wire No. 66 is marked black and brown; (8) Wire No. 89 is connected to X306, term. No. 7; (9) Wire No. 243 is marked bus; (10) Wire No. 237 is connected to TB306, term. No. 63; (11) Wires Nos. 61, 102, 105, and 240 are marked "White L".

Figure 7-32 — Models RBB/RBC Radio Receivers, I-F/A-F Unit (Connection Diagram, WW-305501)



SELECTIVITY SWITCH IN "BROAD" POSITION
WRAP P-44 AROUND CABLE UNDER CLAMP
C.W. OSC. CONNECTION DIAG. M-422363
TOP VIEW
BOTTOM VIEW
TWISTED PAIR
TB 302
TB 303
TB 304
TB 305
TB 306
TB 309
S306
S307
S308
T301
T302
T303
T304
T305
T306
X301
X302
X303
X304
X305
X306
X307
X308
X309
X310
L-301
L306
L307
R-364
R-368
R-362
C-301
TERM. POST #1
T.M. POST #2
217 YEL.
210 GRN. TR.
209 BLK. TR.
208 WHITE
215 WHITE L
230 RED TR.
234 RED & GRN.
161 RED & BLUE
252 RED & BLUE
263 BRN & BLK.
142 YEL TR.
152 BLK & YEL.
286 WHITE-L
21 BLK. TR.
26 BRN
12 RED & GRN
136 YELLOW
40 RED & BLUE
131 BLK & BRN
130 WHITE L
126 GREEN


SOLDER TERMINALS PT43 TO SHIELDS LINE UP WITH FIRST & THIRD HOLES FROM FRONT OF CHASSIS.
WRAP P-44 AROUND CABLE UNDER CLAMP
NOTE SECTIONS 2,3,4,5,6 & 7 STATOR CONTACTS SAME AS SECTION 1
WIRES "124 & "163 DO NOT CABLE AND DRESS AWAY FROM OTHER LEADS.
DO NOT CABLE
TWISTED PAIR
L-301
T301
T305
TB 301
TB 302
TB 303
TB 306
TB 309
TB 310
R 361 A
R 361 B
R 369
R-364
R-368
R-362
S 303
S 304
X 305
X 306
X 307
X 308
X 309
X 310
X 311
C 341
C 342
C 373
153 RED & GRN
151 RED & GRN TR
150 RED & BLUE
149 RED & BLUE TR
148 RED & GRN TR
129 RED & GRN
147 BLK & YEL TR
145 BLK & BRN TR
152 BLK & YEL
142 YEL TR
263 BRN & BLK
159 BLK & YEL
279 BRN & BLK
210 GRN TR
209 BLK TR
269 BLK
254 RED
203 RED
137 RED
205 BLK & GRN
270 BLK & GRN
211 BLK & BRN
177 BLK & GRN
232 GRN
215 WHITE L
208 WHITE
230 RED TR
194 RED & BLUE
176 WHT
220 BLK & BRN
120 BLK & YEL
223 WHT
131 BLK & BRN
162 WHITE
130 WHITE L
124 GREEN
A.S. "ON CPL" SWITCH SHOWN IN ON POSITION
TOP


SOLDER TERMINALS PT43 TO SHIELDS LINE UP WITH FIRST & THIRD HOLES FROM FRONT OF CHASSIS.
NOTE - REMOVE ONE PLAIN WASHER FROM EACH METER TERMINAL WHEN ASSEMBLING PART 42.
NOTE SECTIONS 2,3,4,5,6 & 7 STATOR CONTACTS SAME AS SECTION 1
NOTE - TIE THESE LEADS SECURELY, KEEPING THE SHIELDS FROM CONTACT WITH ANY POINT OTHER THAN GROUND
WIRES "124 & "163 DO NOT CABLE AND DRESS AWAY FROM OTHER LEADS.
SWITCH SHOWN IN "DIRECT" POSITION
A.S. "ON-OFF" SWITCH SHOWN IN ON POSITION
DO NOT CABLE
TWISTED PAIR
FRONT PANEL (ABOVE CHASSIS)
TOP
M302 TUNING
M303 OFF
M301 DC V.
R321
R361B
R369
R361A
S305
S301
S303
L305
I 301
J 303
C353
C354
C368
C369
TB 301
X311
153 RED & GRN
150 RED & BLUE
149 RED & BLUE
148 RED & GRN TR.
129 RED & GRN
147 BLK & YEL TR.
145 BLK & BRN TR.
241 BLACK & GRN TR.
267 BLK & YEL
235 BLK & BRN TR.
236 RED TR.
255 BLK & BRN.
269 BLK
205 BLK & GRN
232 GRN
159 BLK & YEL
206 BLK & GRN.
234 RED
211 BLK & BRN
177 BLK & GRN
220 BLK & BRN
162 WHITE
120 BLK & YEL
"B"

WIRE TABLE		
WIRE NO. (INCLUSIVE)	DESCRIPTION	PART NO K-874582-501
14, 21, 50, 52, 54, 58, 60, 90 & 91	PS-580-7 WHT-BLK-TR	5
4, 11, 22, 25, 26, 33, 37, 51, 53, 55, 57, 59, 62, 92, 93 & 271	PS-580-7 WHT-BRN-TR	6
5, 12, 43, 44, 129, 148, 151, 153, 154, 234 & 272	PS-580-22 WHT-RED & GRN-TR	7
209, 266, 269, 273, & 276	PS-580-22 WHT-BLK-TR.	8
7, 13, 19, 27, 41, 56, 106, 137, 139, 203, 230, 235, 246, 247, 253, 254, 236, 275	PS 580-22 WHT-RED-TR	9
8, 18, 126, 188, 189, 210, 232, 237, 244, 249	PS-580-22 WHT-GRN-TR.	10
9, 124, 125, 138, 141, 193	PS-580-22 WHT-BLUE-TR	11
1, 10, 24, 28, 119, 120, 147, 152, 157, 189, 202, 224, 248, 267	PS-580-22 WHT-BLK & YEL-TR	12
260, 228, 274	PS-580-22 WHT-BRN-TR.	13
15, 20, 29, 30, 38, 95, 136, 142, 143, 144, 156, 160, 200, 217, 256, 238, 239	PS-580-22 WHT-YEL.-TR.	14
23, 31, 32, 40, 84, 85, 94, 96, 149, 150, 158, 161, 194, 196, 198, 226, 250, 252	PS-580-22 WHT-RED & BLUE-TR	15
6, 17, 39, 42, 45, 46, 131, 134, 145, 146, 155, 165, 182, 211, 216, 220, 221, 225, 229, 233, 243, 242, 245, 251, 255, 257, 263, 265, 268, 279, 280	PS-580-22 WHT-BLK & BRN-TR.	16
97, 115, 121, 122, 123, 140, 162, 163, 174, 176, 208, 212, 213, 214, 218, 219, 222, 223, 231, 262	PS-580-22 WHITE	17
135, 177, 192, 205, 206, 241, 270	PS-580-22 WHT-BLK & GRN-TR.	18
103, 104, 111, 112, 114, 116, 118, 130, 132, 164, 215, 286.	PS 4003 WHITE .050 DIA	19
48, 49, 69, 70, 71, 72, 74, 75, 77, 78, 79, 80, 81, 166-172, 175, 178-181, 183-187, 190, 191, 195, 197, 199, 201, 204, 207, 258, 259, 283-295	PS-105 BUS .032 DIA.	20
2, 3, 16, 34, 35, 36, 47, 61, 62, 63, 64, 65, 66, 67, 68, 73, 76, 82, 83, 86, 87, 88, 98-101, 102, 105, 107-110, 113, 173, 227, 233, 240, 261, 277, 278	PS-105 BUS .040 DIA.	31
117, 127 & 128	PS-105 BUS .050 DIA.	48
287, 288, 289, 290, 291, 292, 293, 294 & 295	PS-583 TUBING .053 I.D. YELLOW	37

NOTE: This dwg. applies to all RBB/RBC equipments except for the following differences:

a. For Models RBB/RBC (serial Nos. 1-125).
(1) Bus wire Nos. 282 to 285 inclusive are not used; (2) On TB304, lead between term. No. 8 and No. 9 is No. 133 bus; (3) Wire No. 14 is connected to term. "C" on J301; (4) Wire No. 233 is marked "bus"; (5) "White L" wire on T305 is connected to TB302, term. No. 3; (6) Wire No. 66 is marked "bus"; (7) Wire No. 127 is marked "White L"; (8) Wire No. 117 and No. 128 are marked "White L"; (9) R373 and R374 not used; (10) See also b. below.

b. For Models RBB/RBC (serial Nos. 1-125) and RBB-1/RBC-1 (serial Nos. 1-1000).
(1) G1 is located on CW oscillator shelf; (2) C301 is mounted on CW oscillator shelf; (3) C301, term. No. 3 is connected to G1 on CW oscillator shelf; (4) Wire No. 286 is not used; (5) In reference to C352 wire No. 15 is connected to term. No. 2 and wire No. 16 is connected to term. No. 1; (6) Wire No. 50 is connected to X302, term. No. 2 and wire No. 54 is connected to X302, term. No. 1; (7) Wire No. 66 is marked black and brown; (8) Wire No. 89 is connected to X306, term. No. 7; (9) Wire No. 243 is marked bus; (10) Wire No. 237 is connected to TB306, term. No. 63; (11) Wires Nos. 61, 102, 105, and 240 are marked "White L".

Figure 7-32 — Models RBB/RBC Radio Receivers, I-F/A-F Unit (Connection Diagram, WW-305501)

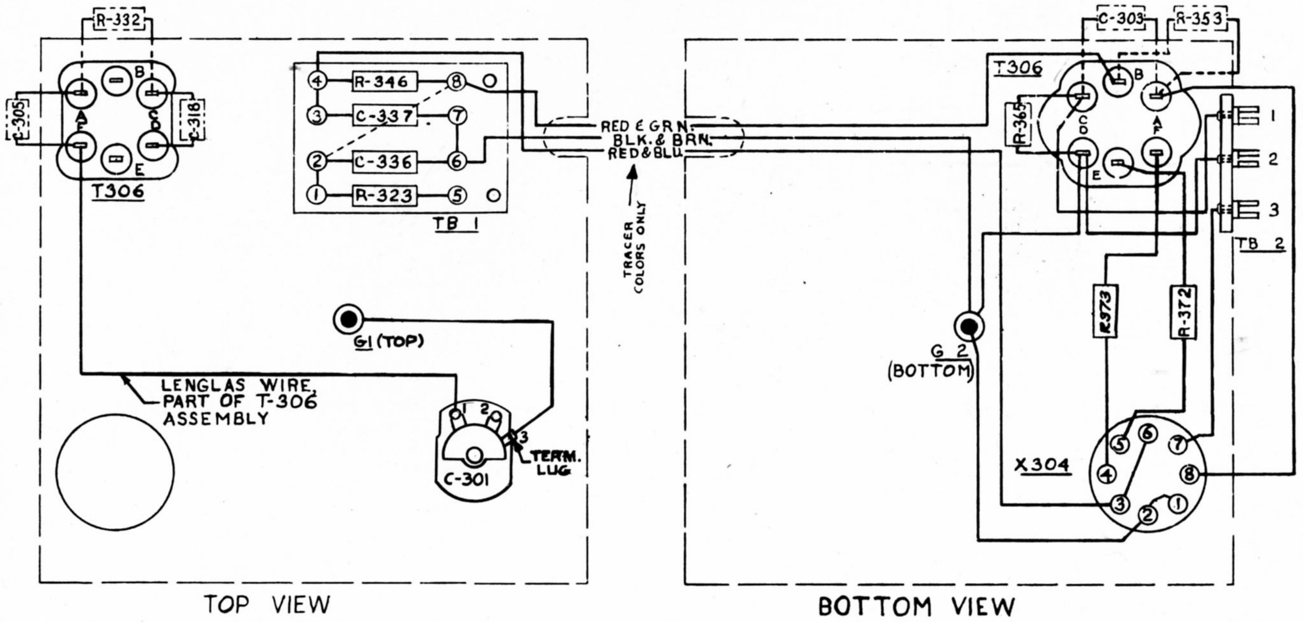
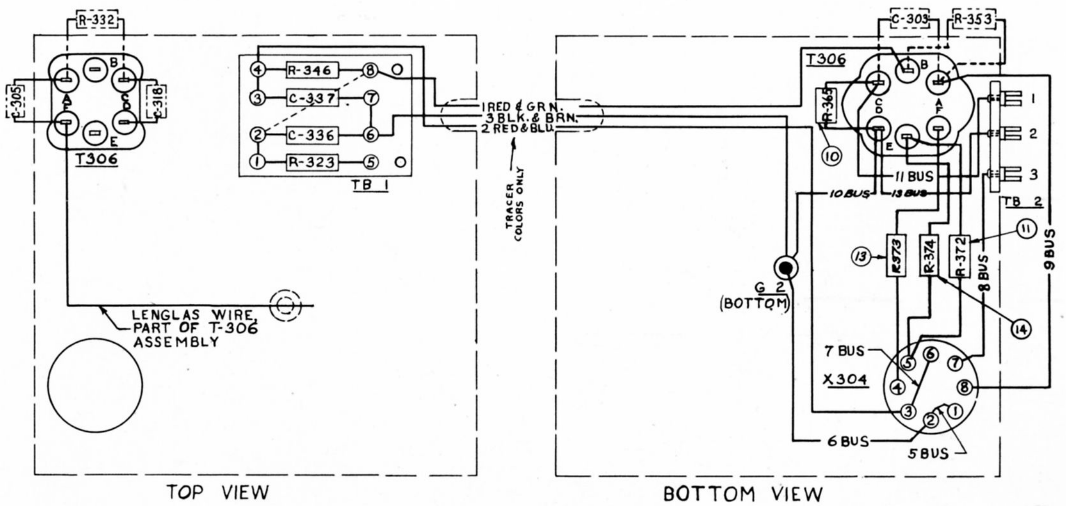


Figure 7-33 — Models RBB/RBC (only) or Models RBB-1/RBC-1 (up to Serial No. 1,000) Radio Receivers, CW Oscillator (Connection Diagram, M-439748)



NUMBERS IN WIRES REFER TO WIRE TABLE.
NUMBERS IN BALLOONS REFER TO WIRING MAT'L LIST K-874858-501.

Figure 7-34 — Models RBB-1/RBC-1 (above Serial No. 1,000) or Models RBB-2/RBC-2 Radio Receivers, CW Oscillator (Connection Diagram, M-422363)

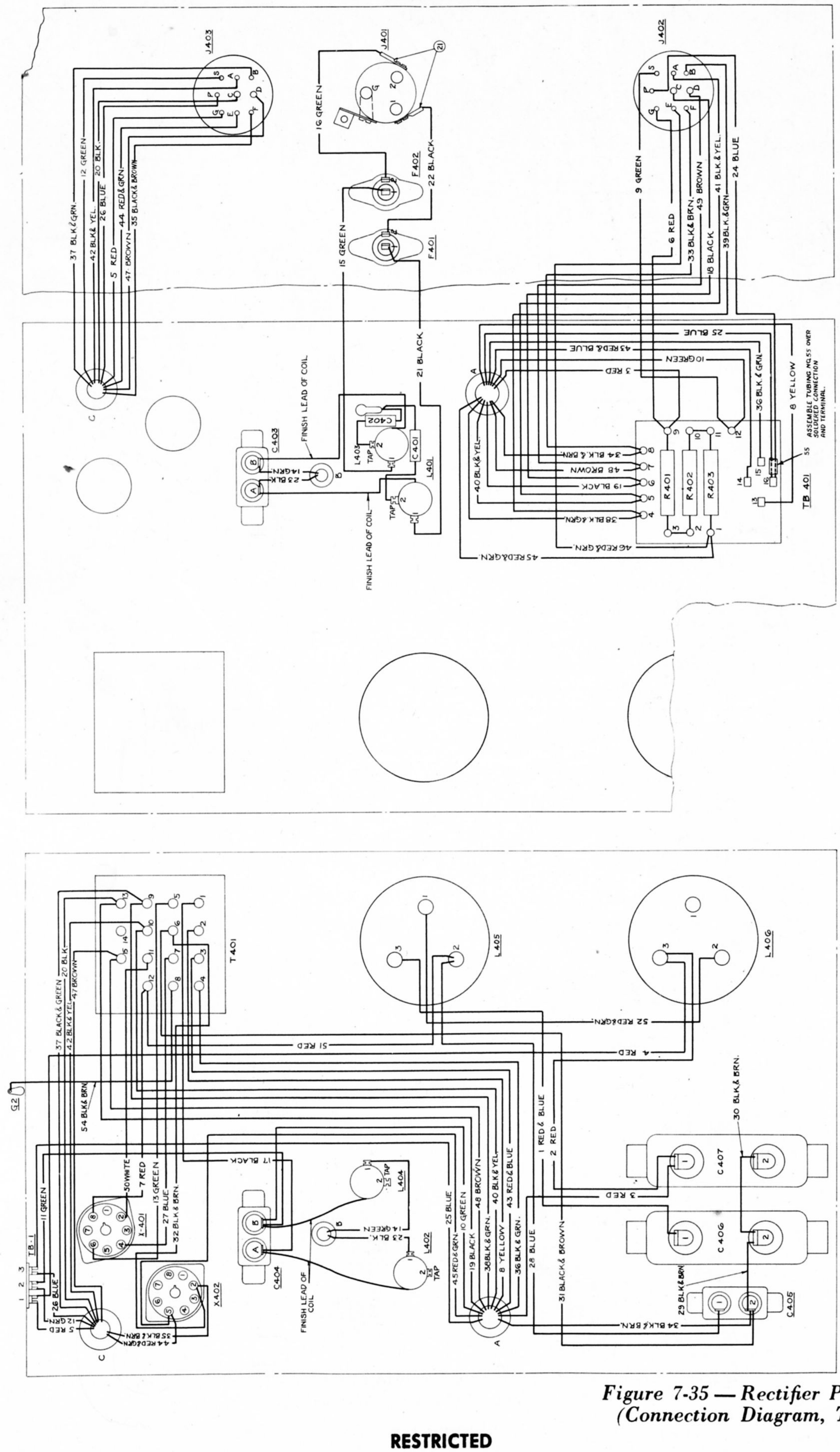


Figure 7-35 — Rectifier Power Unit (Connection Diagram, T-620737)

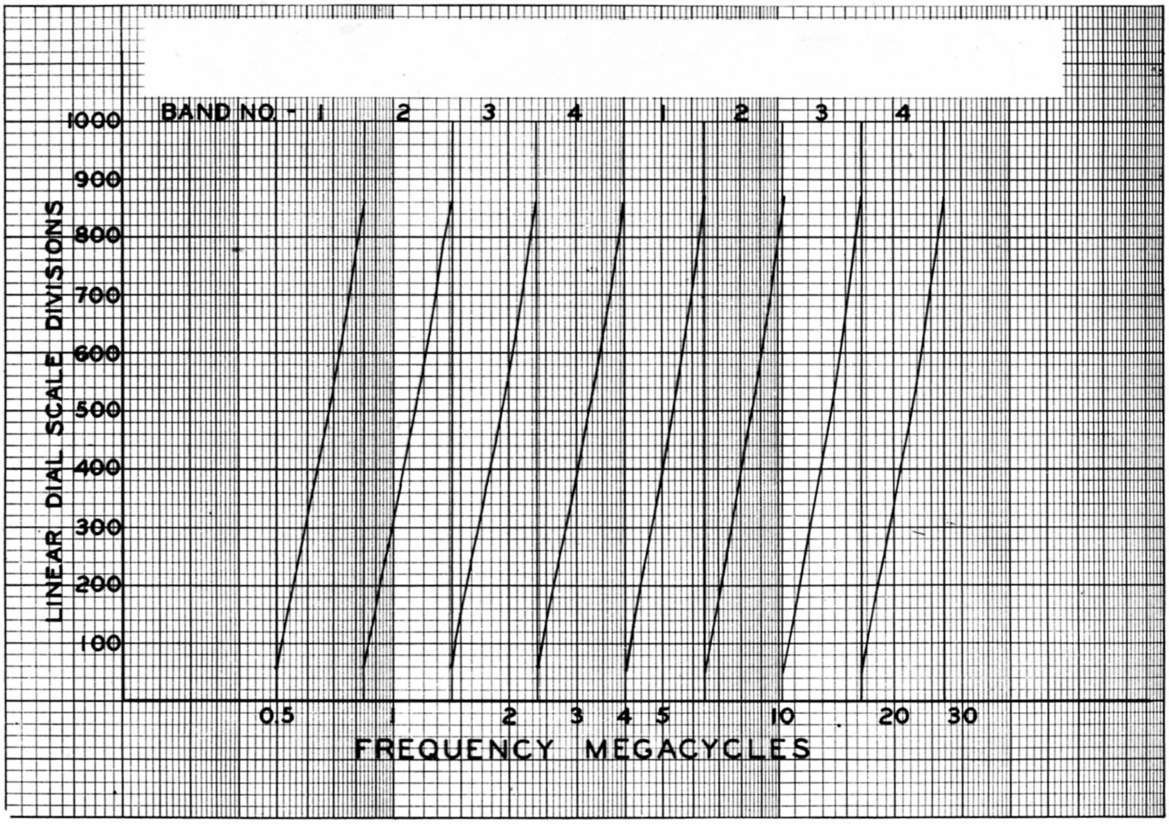


Figure 7-36 — Models RBB/RBC Radio Receivers, Dial Calibration (Average Curves, S-880023)

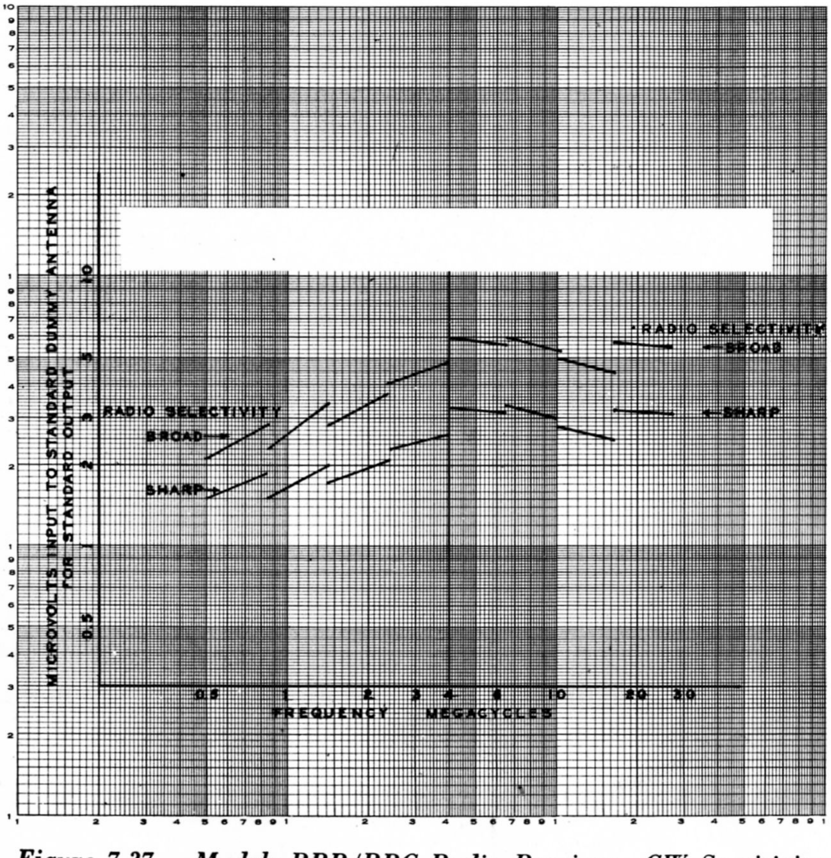


Figure 7-37 — Models RBB/RBC Radio Receivers, CW Sensitivity (Average Curves, S-880024)

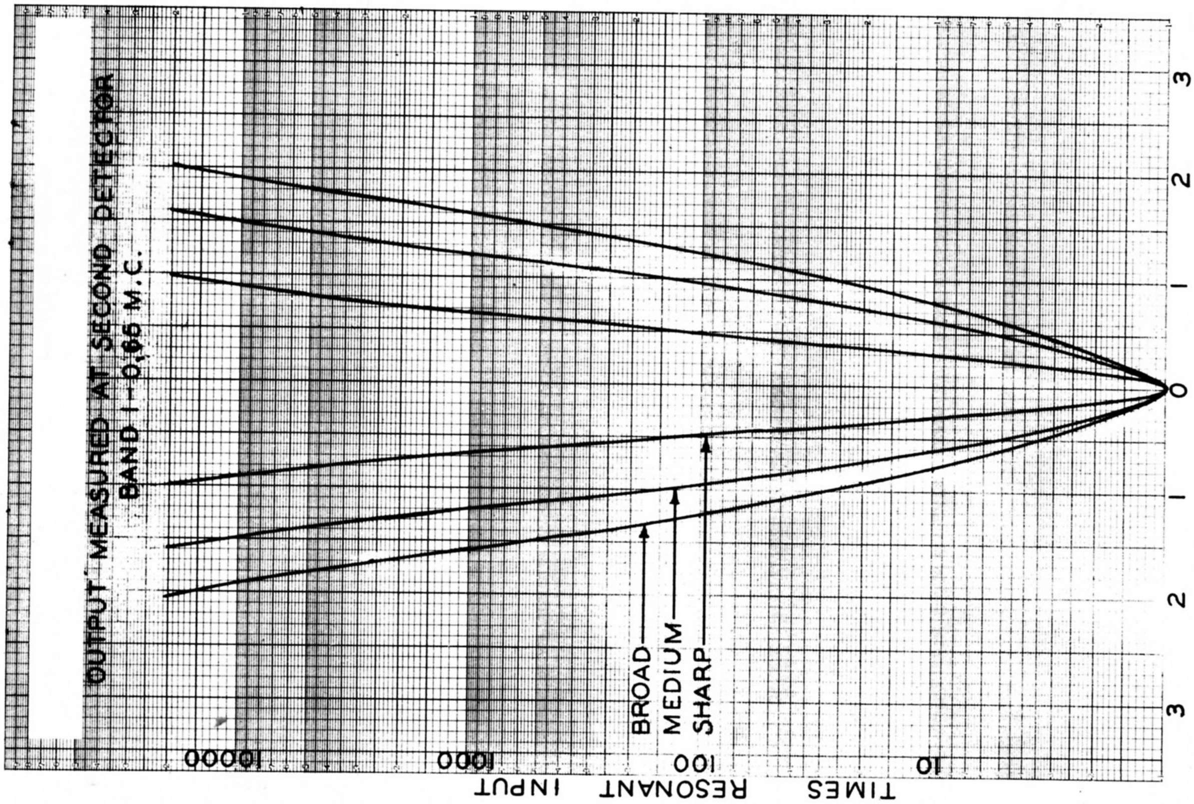


Figure 7-38 — Model RBB Radio Receiver, Overall Selectivity, Band 1 (Average Curves, S-880025)

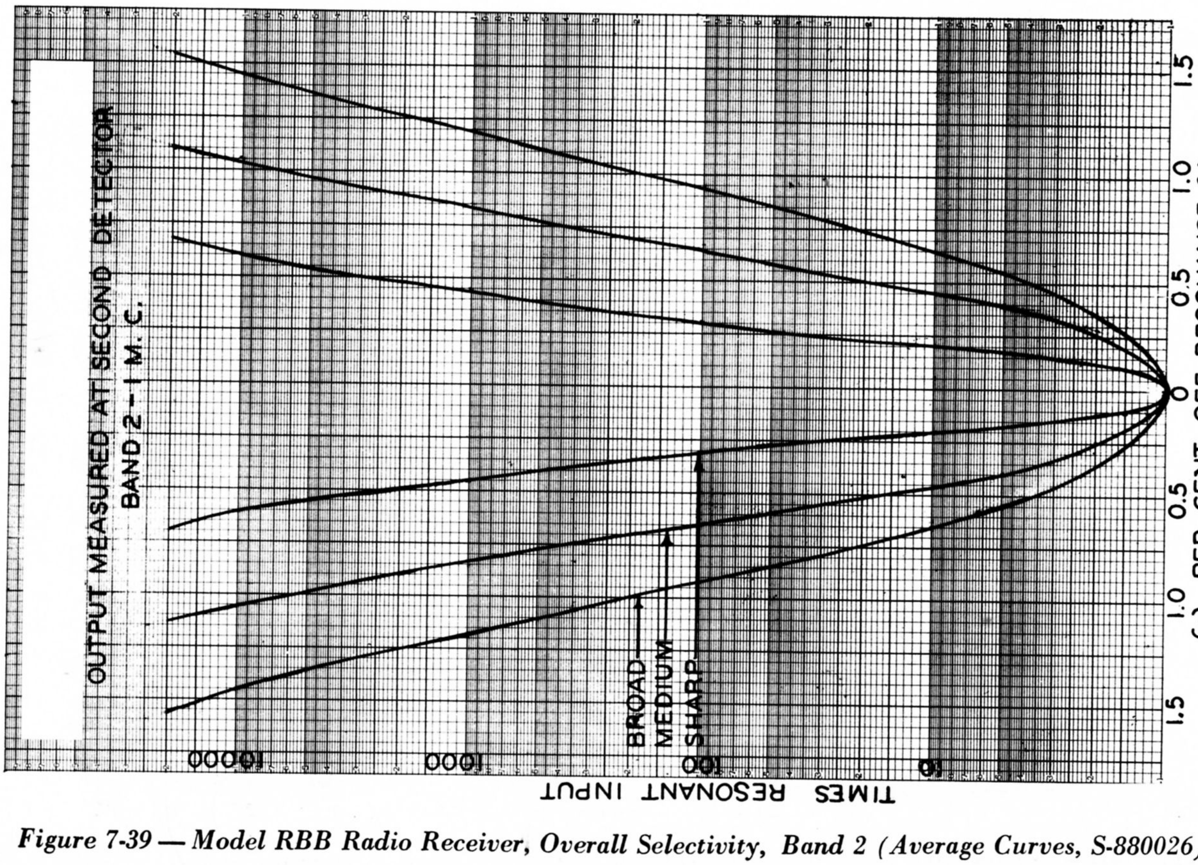


Figure 7-39 — Model RBB Radio Receiver, Overall Selectivity, Band 2 (Average Curves, S-880026)

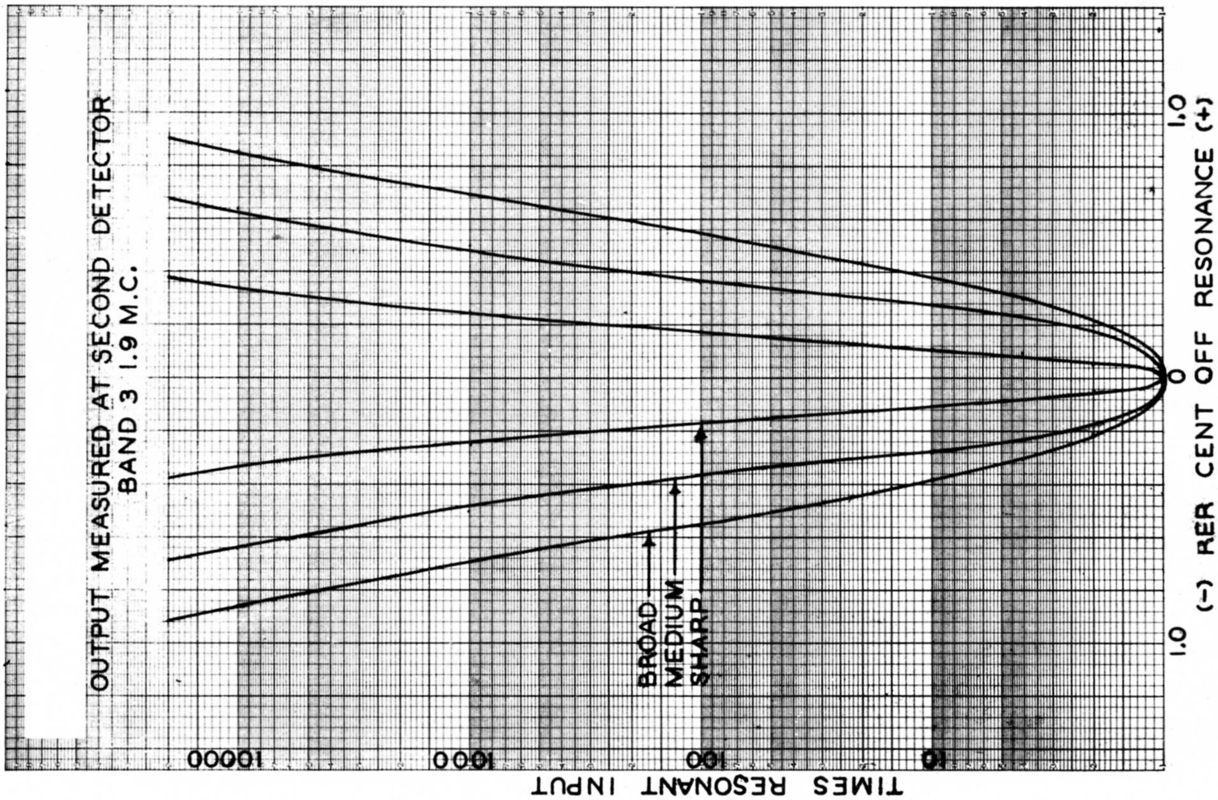


Figure 7-40 — Model RBB Radio Receiver, Overall Selectivity, Band 3 (Average Curves, S-880027)

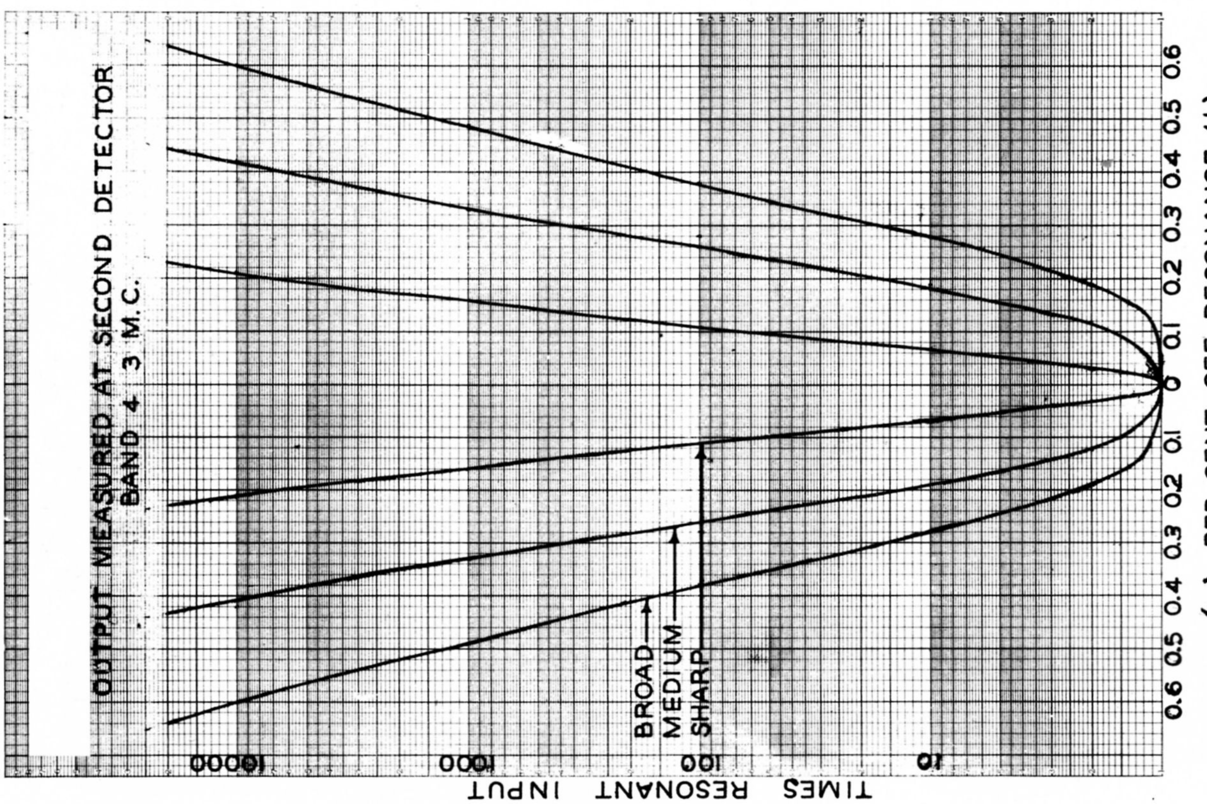


Figure 7-41 — Model RBB Radio Receiver, Overall Selectivity, Band 4 (Average Curves, S-880028)

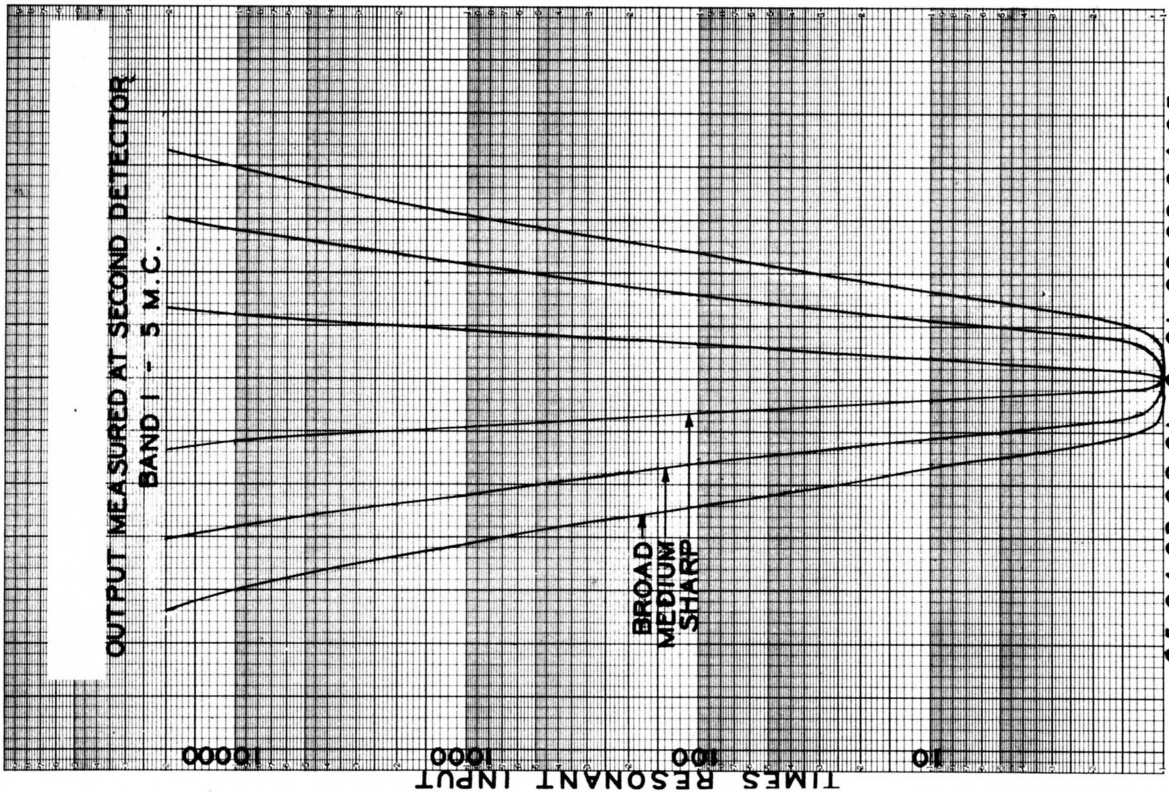


Figure 7-42 — *Model RBC Radio Receiver, Overall Selectivity, Band 1 (Average Curves, S-880029)*

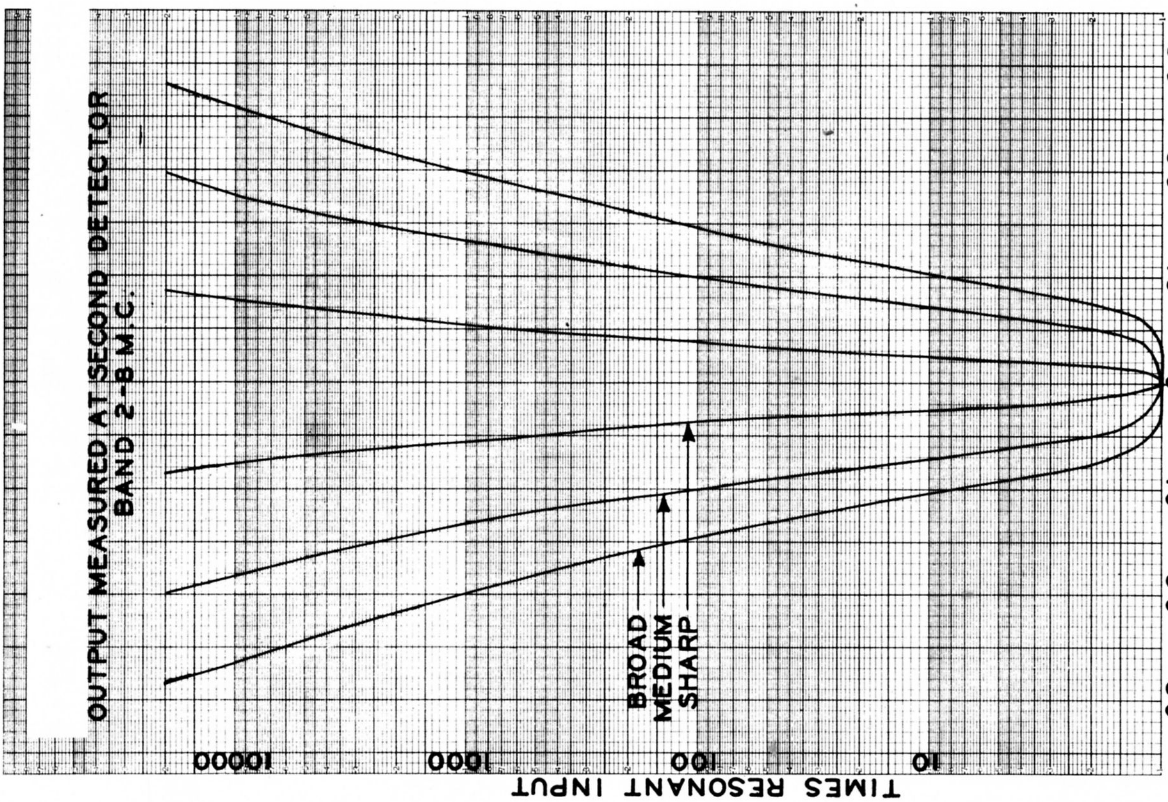


Figure 7-43 — *Model RBC Radio Receiver, Overall Selectivity, Band 2 (Average Curves, S-880030)*

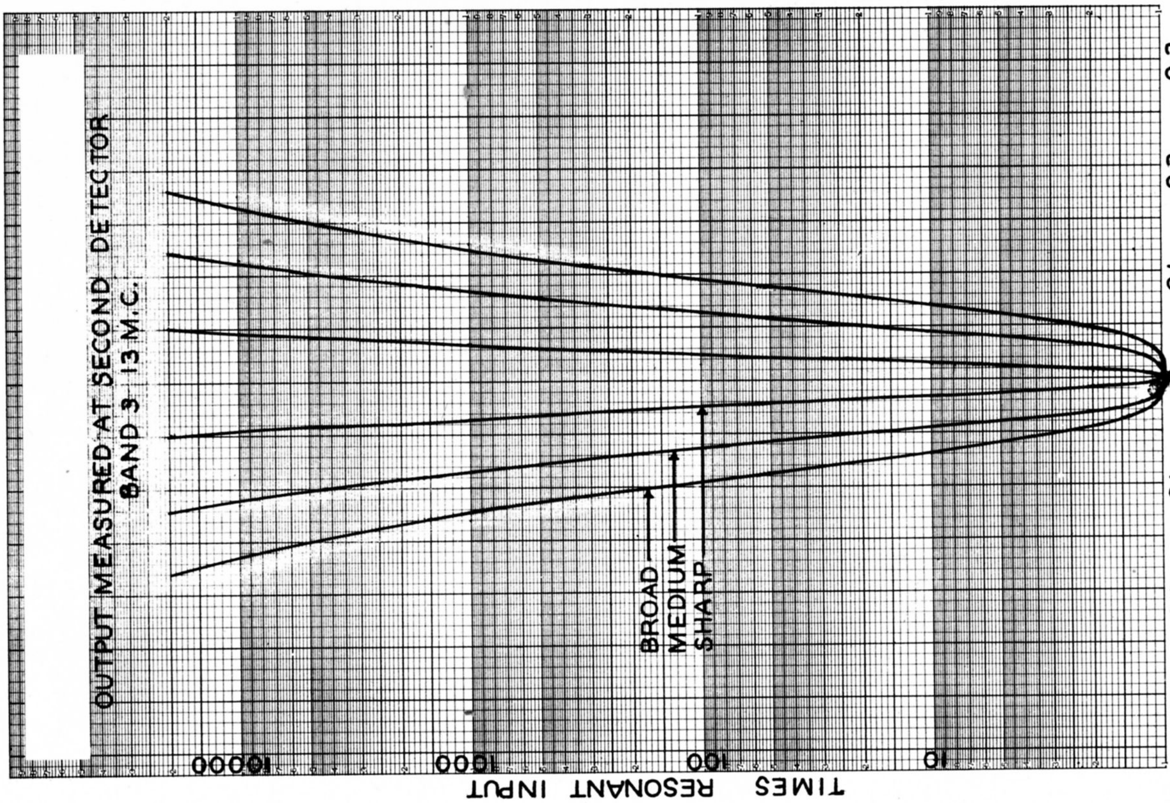


Figure 7-44 — Model RBC Radio Receiver, Overall Selectivity, Band 3 (Average Curves, S-880031)

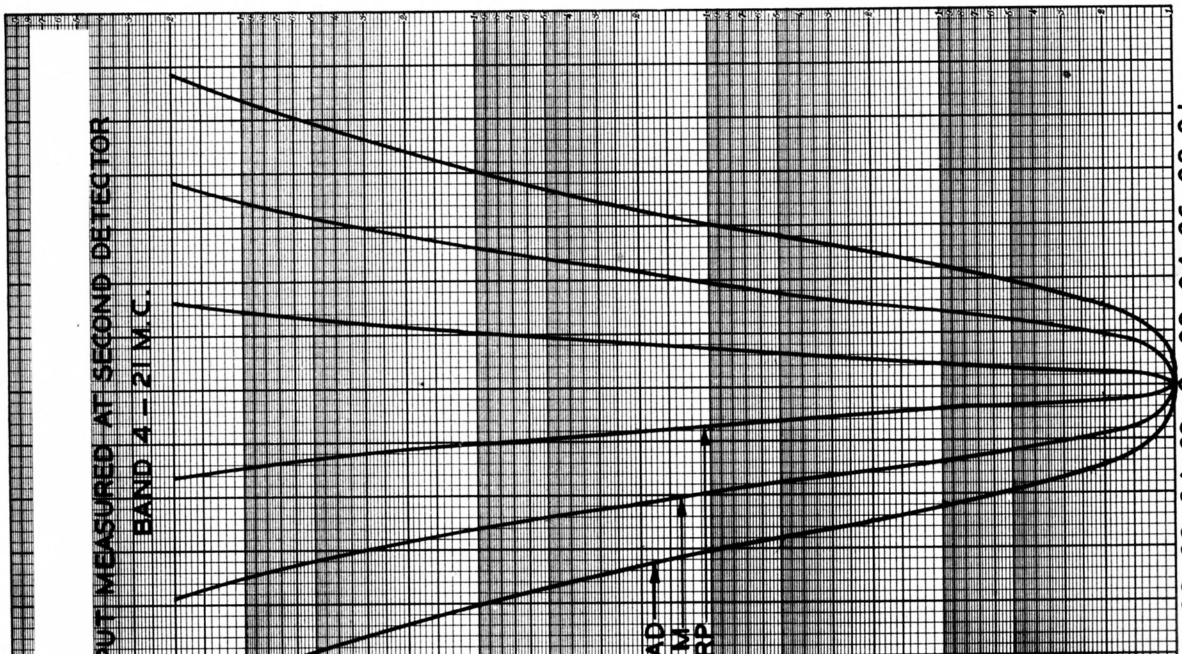


Figure 7-45 — Model RBC Radio Receiver, Overall Selectivity, Band 4 (Average Curves, S-880032)

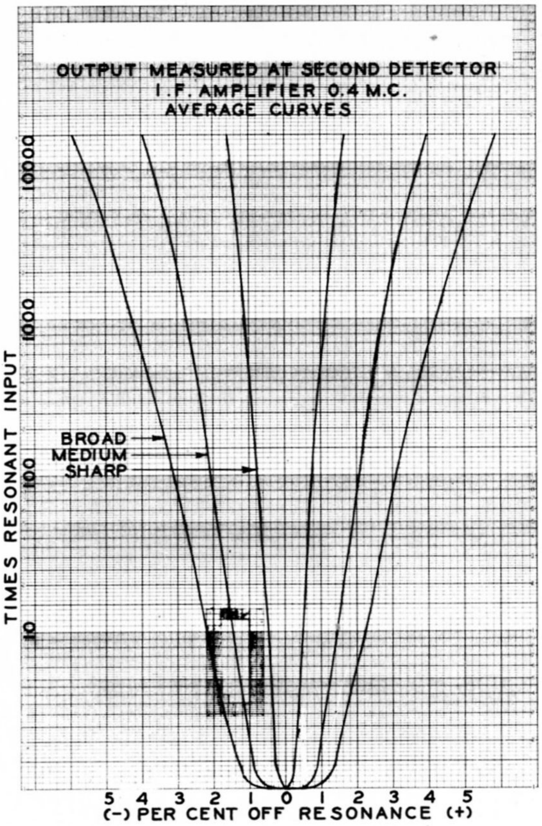


Figure 7-46 — Models RBB/RBC Radio Receivers, I-F Selectivity (Average Curves, S-880033)

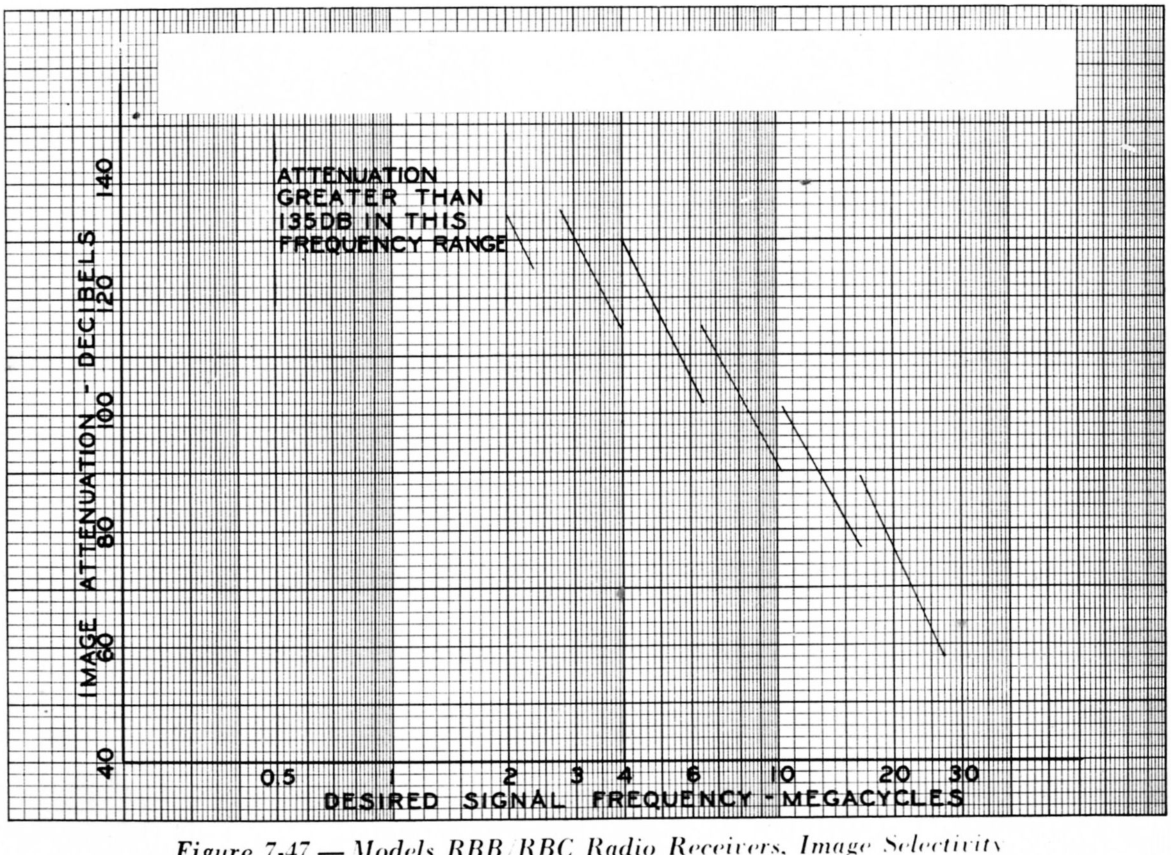


Figure 7-47 — Models RBB/RBC Radio Receivers, Image Selectivity (Average Curves, S-880034)

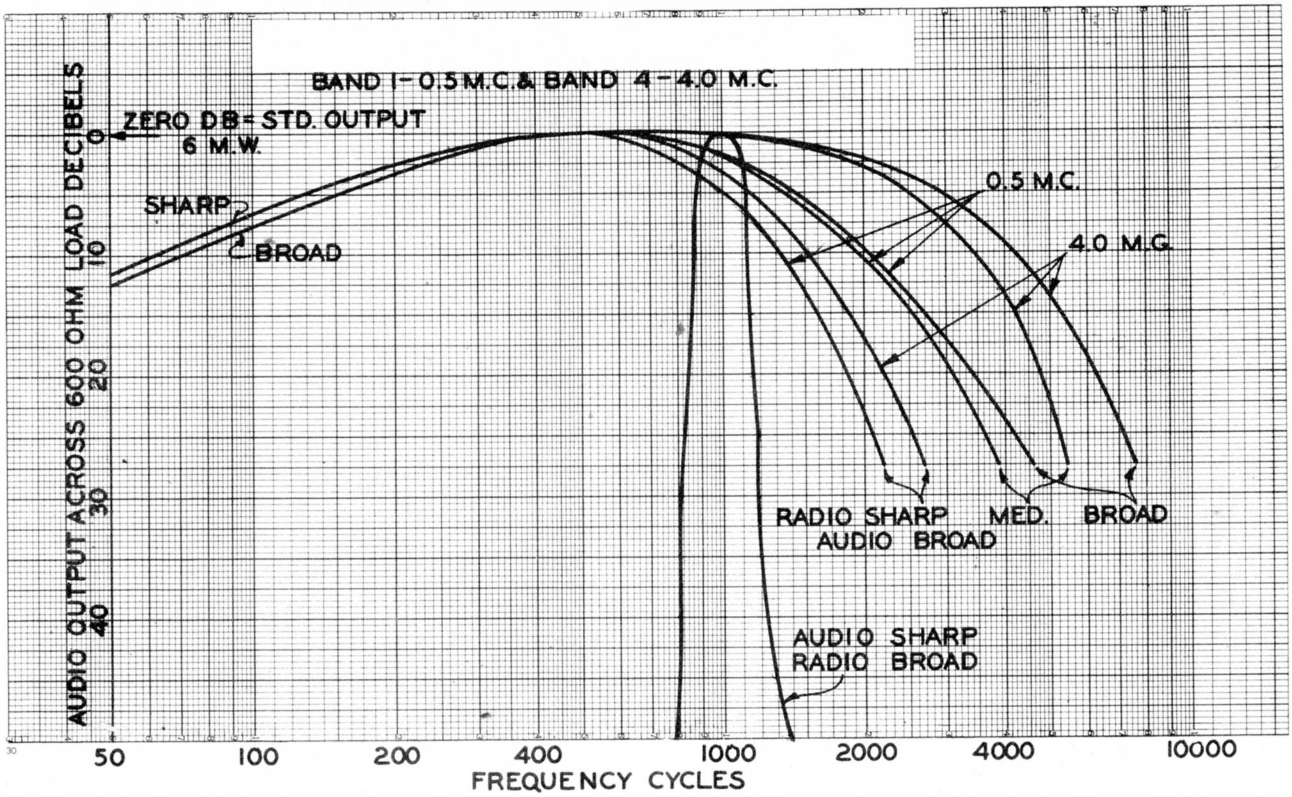


Figure 7-48 — Model RBB Radio Receiver, Overall Audio Fidelity (Average Curves, S-880035)

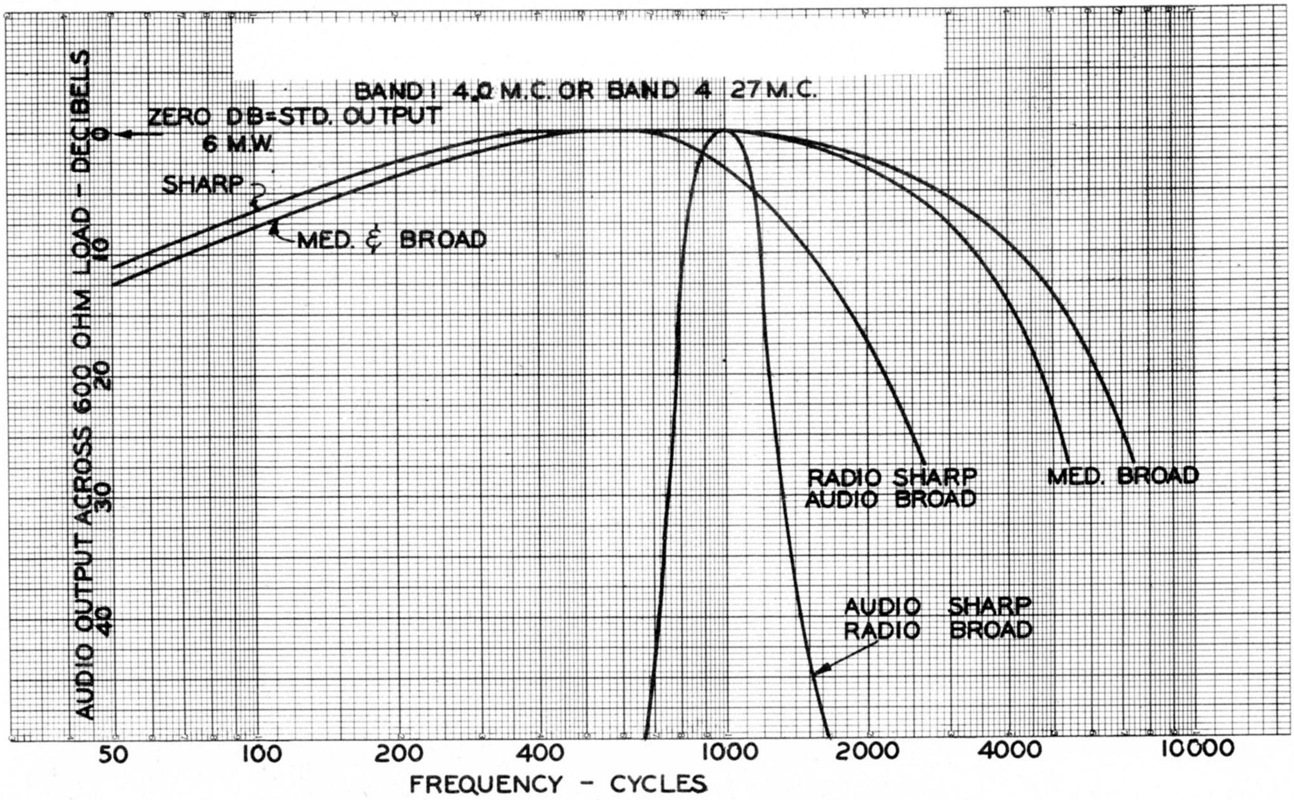


Figure 7-49 — Model RBC Radio Receiver, Overall Audio Fidelity (Average Curves, S-880036)

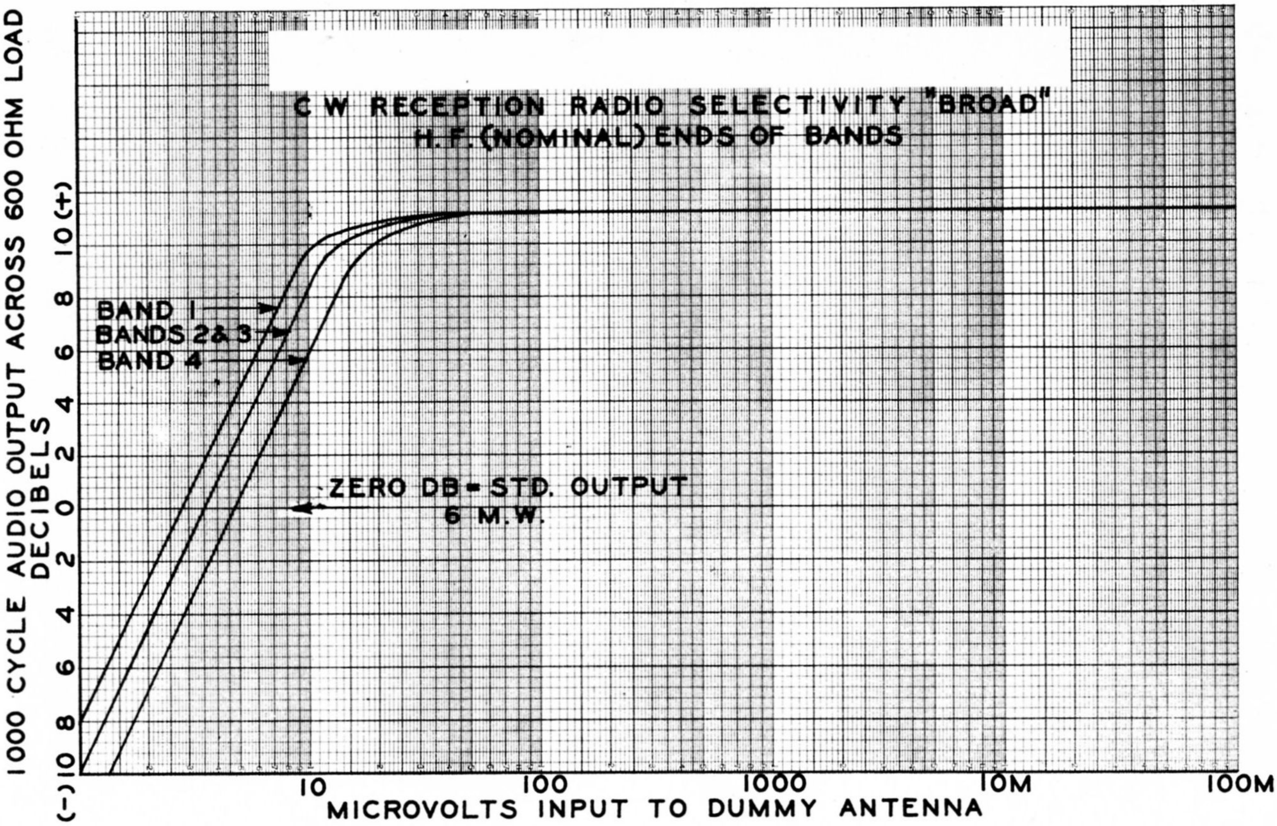


Figure 7-50 — Model RBB Radio Receiver, Resonant Overload
(Average Curves, S-880037)

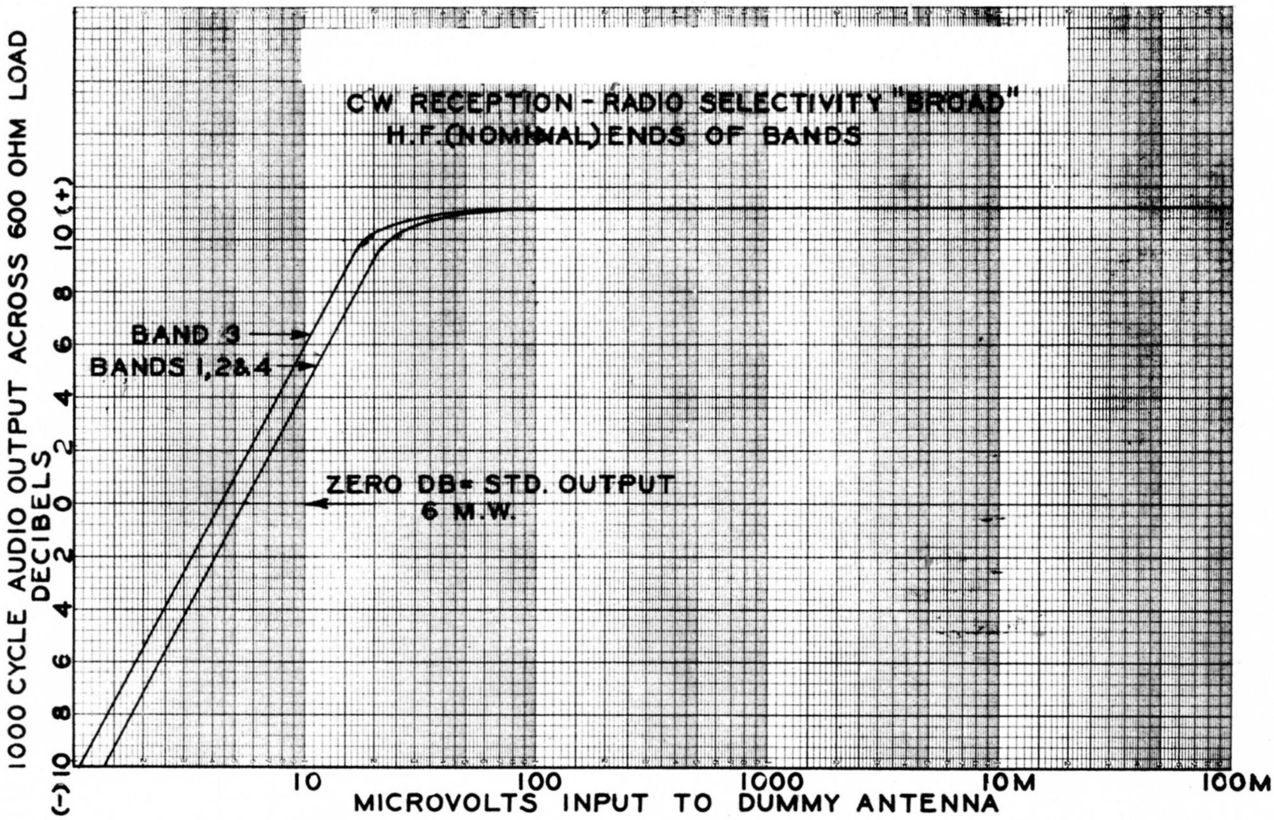


Figure 7-51 — Model RBC Radio Receiver, Resonant Overload
(Average Curves, S-880038)

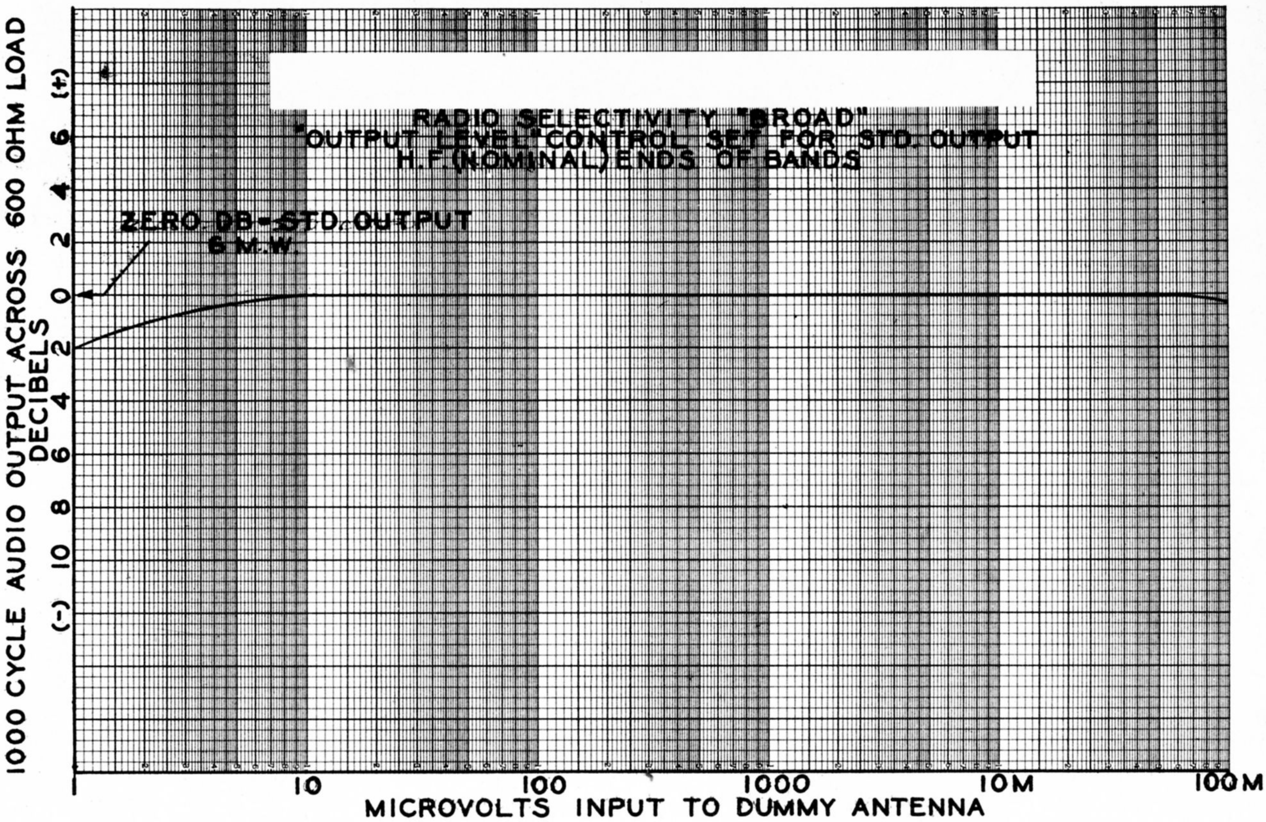


Figure 7-52 — Model RBB Radio Receiver, Automatic Volume Control (Average Curves, S-880039)

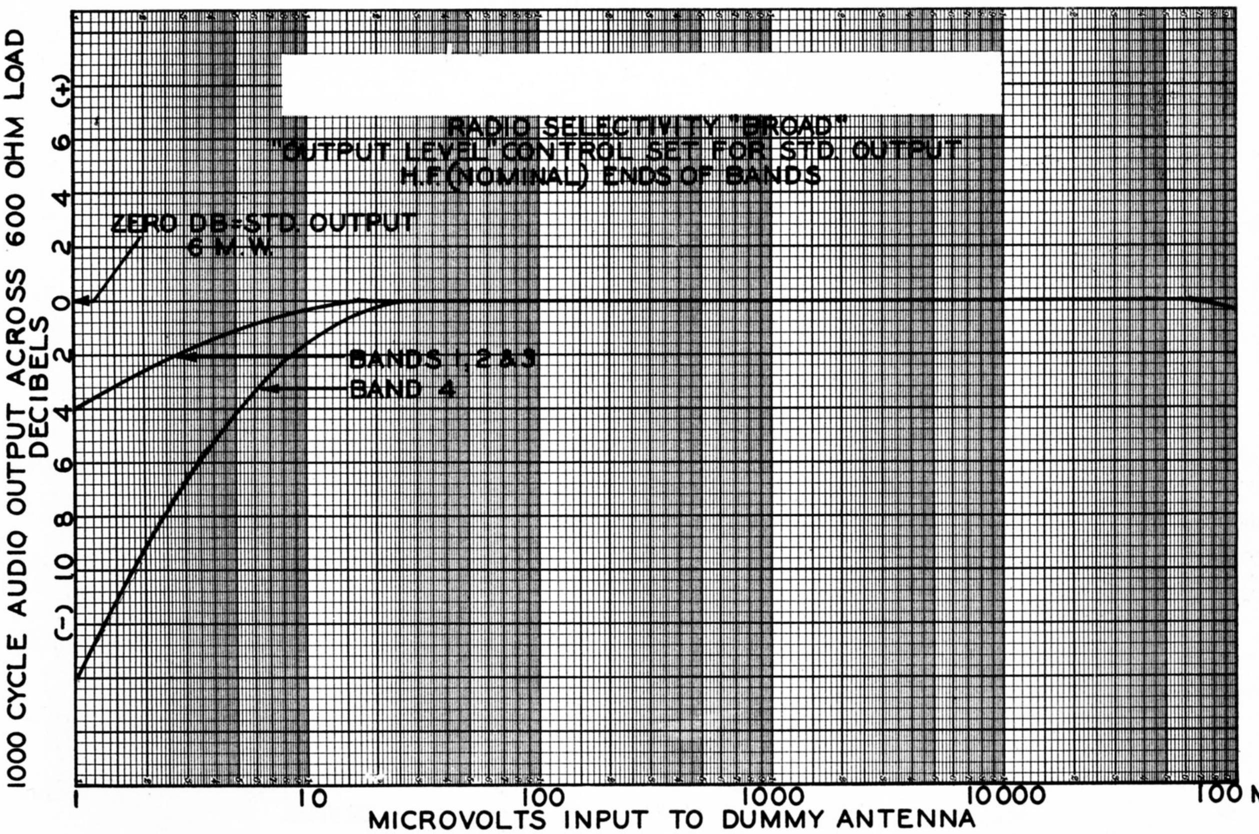


Figure 7-53 — Model RBC Radio Receiver, Automatic Volume Control (Average Curves, S-880040)

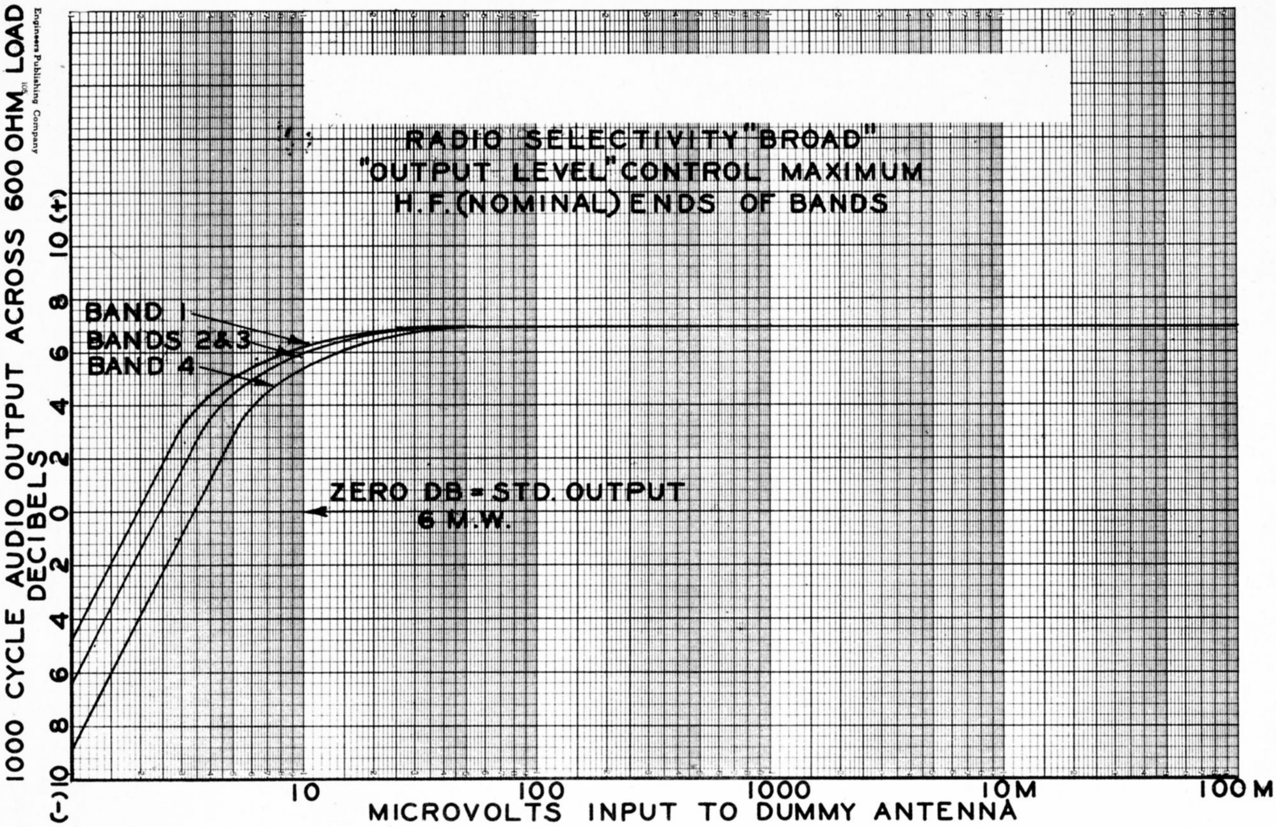


Figure 7-54 — Model RBB Radio Receiver, Output Limiter (Average Curves, S-880041)

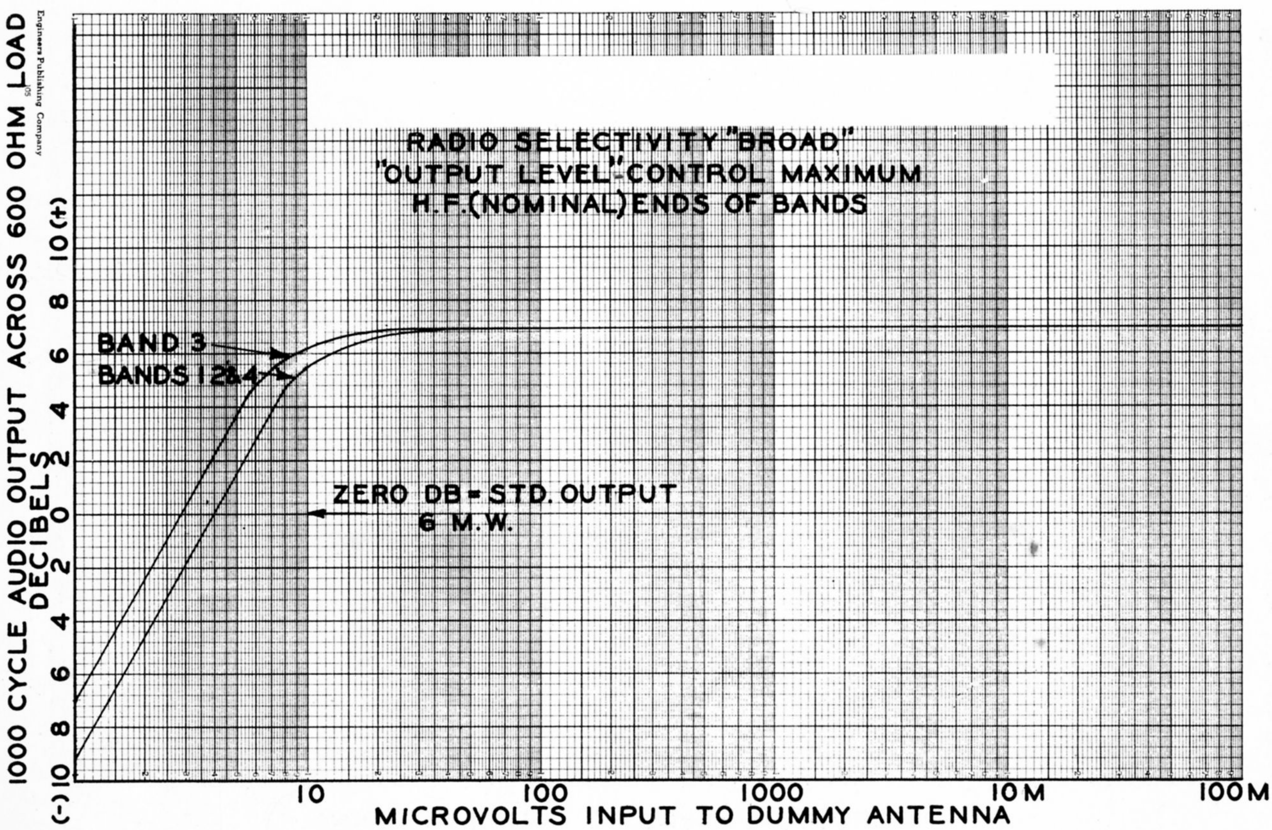


Figure 7-55 — Model RBC Radio Receiver, Output Limiter (Average Curves, S-880042)