Handbook of Preliminary Instructions

for

NAVY MODEL

RAX-1

Aircraft Radio Equipment

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TABLE OF CONTENTS

		Page
I.	GENERAL DESCRIPTION	1
	A. Major Units	1
	B. Vacuum Tubes	2
	C. Dimensions and Weights	2
	D. Power Drain	3
II.	DETAIL DESCRIPTION	3
	A. Mechanical Features	3
	B. Electrical Circuits	5
III.	INSTALLATION	13
	A. Location	13
	B. Receiver Units	13
	C. Junction Box	13
	D. Cables	14
	E. Connections	14
	F. Adjustment of Antenna Trimmers	14
IV.	OPERATION AND ADJUSTMENTS	14
	A. Operation	15
	B. Adjustments	16
V.	MAINTENANCE	17
VI.	LOCATION AND CORRECTION TROUBLES	18
	List of Major Units	26
	Table VI—Parts List by Symbol Designations	27
	Operating Spare Parts List	73

LIST OF CURVES

Page

RECEIVER UNIT NO. 1

K-7883551 — AVC Curve 83
K-7883552 — MCW Overload Curve 84
K-7883553 — CW Overload Curve 85
K-7883554 — I-f Selectivity Curve 86
K-7883555 — Over-all Selectivity Curve, Band No. 1 87
K-7883556 — Over-all Selectivity Curve, Band No. 2 88
K-7883557 — Over-all Selectivity Curve, Band No. 3 and 4 89
K-7883558 — Sensitivity Curve 90
K-7883559 — I-f and Image Rejection 91

RECEIVER UNIT NO. 2

K-7883560 — AVC Curve 92
K-7883561 — MCW Overload Curve 93
K-7883562 — CW Overload Curve 94
K-7883563 — I-f Selectivity Curve 95
K-7883564 — Over-all Selectivity Curve, Band No. 1 96
K-7883565 — Over-all Selectivity Curve, Band No. 2 97
K-7883566 — Over-all Selectivity Curve, Band No. 3 and 4 98
K-7883567 — Sensitivity Curve 99
K-7883568 — I-f and Image Rejection 100

RECEIVER UNIT NO. 3

K-7883569 — AVC Curve 101
K-7883570 — MCW Overload Curve 102
K-7883571 — CW Overload Curve 103
K-7883572 — I-f Selectivity Curve 104
K-7883573 — Over-all Selectivity Curve, Band No. 1 105
K-7883574 — Over-all Selectivity Curve, Band No. 2 106
K-7883575 — Over-all Selectivity Curve, Band No. 3 and 4 107
K-7883576 — Sensitivity Curve 108
K-7883577 — I-f and Image Rejection 109

Page

LIST OF DRAWINGS

W-7350950 — Outline Drawing of Single Receiver, Model RAX-1 Radio Receiving Equipment 111-112
W-7350826 — Schematic Diagram, Type CG-46115 Receiver Unit No. 1 113–114
WW-7350184 — Schematic Diagram, Type CG-46116 Receiver Unit No. 2 115–116
WW-7350185 — Schematic Diagram, Type CG-46117 Receiver Unit No. 3 117–118
M-7465168 — Cable Connections 119-120
W-7350828 — Connection Diagram, Type CG-46115 Receiver Unit No. 1 121–122
W-7350840 — Connection Diagram, R-f Units Type CG-46115 Radio Receiver No. 1 123–124
W-7350830 — Connection Diagram, Type CG-46116 Receiver Unit No. 2 125–126
W-7350829 — Connection Diagram, R-f Units, Type CG-46116 Radio Receiver No. 2 127–128
WW-7350186 — Connection Diagram, Type CG-46117 Receiver Unit No. 3 129–130
W-7350847 — Connection Diagram, R-f Units, Type CG-46117 Radio Receiver No. 3 131–132
P-7763365 — Schematic Diagram of Single Receiver Mounting and External Connections 133–134
M-7465399 — Connection Diagram, Type CG-46128 Receiver Rack .. 135
M-7465393 — Outline Drawing, Type CG-68028 Junction Box 136
M-7465404 — Connection Diagram, Type CG-68028 Junction Box.... 137
K-7883550 — Base Connections of Tube Types used in Navy Model RAX-1 Radio Receiving Equipment 138
P-7764087 — Cabling Diagram, Model RAX-1 Radio Receiving Equipment 139-140

GUARANTEE

The equipment, including all parts and spare parts, except vacuum tubes, is guaranteed for a service period of ONE YEAR 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 TWO 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. Re-designed 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 items 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 TWO YEARS and the service period of ONE YEAR 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 ONE YEAR of satisfactory service.

The design of this equipment is such that the vacuum tubes will operate within their published ratings at all times and in such a manner that a tube life of 2000 hours of service may be expected. Vacuum tubes of the normal 50-watt envelope size and larger are guaranteed for 1000 hours of service life, in accordance with the provisions of Section V of Specifications RE-13A-600B.

All smaller tubes, i.e., tubes not subject to the above-mentioned 1000-hour service life guarantee, are covered by a manufacturer's warranty regarding freedom from defects of design, material, and workmanship.

Batteries, rubber and material normally consumed during operation are warranted good and free from defects.

SAFETY PRECAUTIONS

Operation of this equipment involves the use of high voltages which are dangerous to life. Operating personnel must at all times observe all safety regulations. Do not change tubes or make adjustments inside equipment with high voltage supply on. Do not depend upon door switches or interlocks for protection but always shut down motor-generators or other power equipment. Under certain conditions dangerous potentials may exist in circuits with power controls in the off position due to charges retained by capacitors, etc. To avoid casualties always discharge and ground circuits prior to touching them.

The attention of officers and operating personel is directed to Bureau of Ships circular letter No. 5a of 3 October 1934, or subsequent revisions thereof on the subject of "Radio—Safety Precautions to Be Observed."

I. GENERAL DESCRIPTION

The Model RAX-1 Aircraft Radio Receiving Equipment is designed for reception of radio signals in the frequency range from 200 to 27,000 kilocycles and is intended primarily for installation in aircraft. The equipment operates from a 24-volt storage battery, normally floating across an engine-driven battery-charging generator, the output of which varies from 22 to 29 volts.

A. MAJOR UNITS

1. *(a)* Radio Receiver Unit No. 1, Navy Type CG-46115, Frequency Range: 200 to 1500 kc (4 bands) complete with one set of vacuum tubes.

(b) Radio Receiver Unit No. 2, Navy Type CG-46116, Frequency Range: 1500 to 9000 kc (4 bands) complete with one set of vacuum tubes.

(c) Radio Receiver Unit No. 3, Navy Type CG-46117, Frequency Range: 7000 to 27,000 kc (5 bands) complete with one set of vacuum tubes.

(d) Three Radio Receiver Dynamotors, one for each Radio Receiver Unit and mounted integrally therewith. The dynamotors are identical and completely interchangeable.

Rating: 28.0 Volts Primary—166.0 Volts Secondary—.090 A —32° to +65° C Ambient Cont., Ball Bearing, Totally Enclosed.

2. Three Receiver Racks, Navy Type CG-46128, G-E Drawing P-7763086G1

Each of these racks provide shock mounting for one of the three radio receivers. Each rack has "A" and "B" jacks, a mixing switch, a receptacle for external audio and power cable, and a ground post.

3. One Junction Box, Navy Type CG-68028, G-E Drawing P-7763087.

This unit has two "A" jacks, two "B" jacks for interconnecting with the ICS and Sidetone circuits, three receptacles for audio and power to each radio receiver, and a power input receptacle for incoming power.

4. Cables and Plugs—G-E Drawing M-7465168P2 and P3.

Seven plugs are provided for terminating the three radio receivers to junction box cables, and for the junction box end of the power cable. A ferrule and nut connects the power cable to the airplane supply.

The cable is four-conductor shielded thermoil-covered and is supplied in bulk.

5. Slip Covers

Each radio receiver unit is provided with an airplane cloth slip cover, G-E Drawing K-7876914, having a flap in the front which may be opened to afford access to the controls.

ACCESSORIES AND PARTS
TO BE SUPPLIED BY THE NAVY

Airplane Primary Power Supply, including Junction Box, Antennas and Supports on Airplane.

Radio Helmets and Head Telephones, with Cords and Plugs.

Airplane Interphone System complete, including Microphones with Cords and Plugs, Radio Direction Finding Equipment.

B. VACUUM TUBES

1. *Warning:*

Radio Receiver Units should not be operated without a full complement of tubes in their proper sockets. Failure to observe this rule may result in damage to some of the tubes.

2. *Tube Complement*

The following tubes are used in this radio receiving equipment.

(a) Receiver Unit No. 1, Navy Type CG-46115:

1—Type—T-2 as Glow Tube Antenna Circuit Protector
1—Type—12SK7 as R-f Amplifier
1—Type—12K8 as Converter
1—Type—12SK7 as First I-f Amplifier
1—Type—12SK7 as Second I-7 Amplifier
1—Type—12A6 as Audia Amplifier
1—Type—12SR7 as Beat Oscillator and Detector

(b) Receiver Unit No. 2, Navy Type CG-46116:

1—Type—T-2 as Glow Tube Antenna Circuit Protector
1—Type—12SK7 as First R-f Amplifier
1—Type—12SK7 as Second R-f Amplifier
1—Type—12K8 as Converter
1—Type—12SK7 as First I-f Amplifier
1—Type—12SK7 as Second I-f Amplifier
1—Type—12SK7 as Third I-f Amplifier
1—Type—12A6 as Audio Amplifier
1—Type—12SR7 as Beat Oscillator and Detector

(c) Receiver Unit No. 3, Navy Type CG-46117

1—Type—T-2 as Glow Tube Antenna Circuit Protector
1—Type—12SK7 as First R-f Amplifier
1—Type—12SK7 as Second R-f Amplifier
1—Type—12K8 as Converter
1—Type—12SK7 as First I-f Amplifier
1—Type—12SK7 as Second I-f Amplifier
1—Type—12SK7 as Third 1-f Amplifier
1—Type—12A6 as Audio Amplifier
1—Type—12SR7 as Beat Oscillator and Detector

C. DIMENSIONS AND WEIGHTS

The outline dimensions of the equipment will be found on outline drawing WW-7350950.

1. The over-all dimensions and weight of each radio receiver unit alone are:

Height—7½ in.
Width—7½ in.
Length—17 in.
Weight—Radio Receiver Unit No. 1, Navy Type CG-46115—21.6 lbs.
Radio Receiver Unit No. 2, Navy Type CG-46116—22.2 lbs.

Radio Receiver Unit No. 3, Navy Type CG-46117 —22.5 lbs.

2. The over-all dimensions and weight of each Receiver Rack Navy Type CG-46128 are:

Height—3⅜ in.
Width—7½ in.
Length—16⅝ in.
Weight—2.8 lb.

3. The over-all dimensions and weight of the Junction Box, Navy Type CG-68028 are:

Height—2 in.
Width—4 in.
Length—5 7/16 in.
Weight—1 lb.

4. The over-all dimensions and weight of each cable plug are:

Diameter—1 5/16 in.
Length—2 5/16 in.
Weight (one)—.12 lb.
Weight (7)—.84 lb.

5. The size and weight of the cable is:

Diameter—½ inch
Weight—.15 lb. per foot

6. Slip Covers (3)

Weight—.14 lb.
Total—.42 lb.

The total weight of the complete equipment (less cable) is 76.96 lb.

D. POWER DRAIN

At the normal rated voltage of 28 volts, the current drain of the individual Radio Receiver Units is:

Radio Receiver Unit No. 1	1.38 amperes
Radio Receiver Unit No. 2	1.65 amperes
Radio Receiver Unit No. 3	1.75 amperes
Total	4.78 amperes

The total current drain at the maximum rated voltage of 29 volts is 4.9 amperes.

II. DETAIL DESCRIPTION

A. MECHANICAL FEATURES

1. Radio Receiver Units and Dynamotors

a. General Construction

Externally, the three radio receiver units are identical in appearance with the exception of Radio Receiver Unit No. 1 which has the ground binding post mounted in the lower left-hand portion of the panel instead of the upper left-hand portion, as in Radio Receiver Units No. 2 and 3. Internally, the units differ only where it is necessary because of the requirements of their different frequency ranges.

Each radio receiver consists of a metal cabinet completely enclosing the radio receiver chassis, and having a base plate equipped with runners, which position and support the radio receiver in the rack. The radio receivers are interchangeable with respect to position on the mounting rack.

The top covers of the radio receivers are held in place with two Dzus fasteners. By loosening these two fasteners and removing the top cover, all tubes are made accessible for replacement. A tube extractor is provided for removing the tubes.

The bottom of the receiver cabinet is enclosed by a cover held in place by screws around its periphery. When access to the bottom of the chassis is required, the radio receiver must be removed from the rack and inverted. With the bottom and top covers off, the radio receiver can be laid on a table on either side, top, or bottom without in any way damaging parts.

Each receiver dynamotor is located at the rear of its respective unit outside of the cabinet housing the radio receiver proper. Each dynamotor is mounted on rubber to provide shockproofing and noise reduction. All necessary connections from the dynamotor to the radio receiver proper are made by a plug and socket arrangement under the dynamotor base. The dynamotor is secured to the receiver cabinet by means of two snap slides, which may be safely-wired in position. No tools other than pliers for removing safety wire are required for changing dynamotors.

All of the radio receivers use "unit construction" for the r-f systems. Each r-f stage, consisting of the necessary band switch section, tuning inductors and trimmer condensers, is assembled in a single unit and enclosed in an individual shield. Three such units are used in the 200/1500 kc radio receiver and four such units in each of the other two radio receivers. The band switch shaft is removable through the rear of the cabinet, after removing the dynamotor. After the band switch shaft has been removed, any one of the r-f units may be individually removed from the radio receiver by unsoldering the connections on the bottom and taking out the mounting screws. All of the connections to the r-f units are made at terminals on the base except the lead which connects to the stator of the tuning capacitor. This lead runs directly from the band switch to the stator terminal through a hole in the base of the unit and must be unsoldered at the stator terminal when removing an r-f unit. With the unit removed from the chassis and the shield taken off, all parts are readily accessible for inspection or servicing.

With the r-f units assembled to the chassis, the individual shields over each of the units may be removed (after the dynamotor and band switch shaft have been removed) and the component parts inspected without further disassembly.

The under side of the chassis contains the main tuning capacitor and the majority of the small resistors and capacitors required for filtering, by-passing, etc. These small components are, in so far as possible, mounted on terminal boards, and are readily accessible after removing the shield plate which is necessary in Radio Receivers No. 2 and No. 3.

A small compartment in the rear of the radio receiver, outside the main enclosure, houses the fuse, a spare fuse, and a Bristol setscrew wrench.

b. Controls

The front panel of each radio receiver is provided with the following controls and connections:

(1) A tuning control is located at the center bottom of each radio receiver unit. These controls are knurled knobs equipped with handles for rapid cranking across the band. Each radio receiver has a dial, directly calibrated in megacycles, which is masked by a shutter in such a way that only the dial scale in use is visible for a given setting of the band switch. The frequency range covered by the band in use is indicated on the shutter. The dial scale and shutter are observed through a protective window of noninflammable, transparent material.

(2) The band switch control knob is located in the center of the dial and is directly connected to the shutter mentioned above. Suitable stops prevent rotation of this knob beyond the limits of its travel. To further aid in identifying each band, the band switch knob points to a number indicating which band is operative, in addition to the frequency range indication on the shutter.

(3) A spring type binding post for the antenna connection is located in the upper right-hand portion of the panel.

(4) An antenna trimmer capacitor knob is located in the lower left-hand portion of the panel. This knob is equipped with a pointer.

(5) A ground connector, consisting of a spring type binding post, is located in the upper left-hand corner of the panel in Radio Receiver Units No. 2 and No. 3 and in the lower left-hand corner of the panel in Radio Receiver Unit No. 1.

(6) The volume control knob is located in the lower right section of the panel. This knob is cylindrical, with a knurled circumference, and has a reference arrow engraved on its face.

(7) The AVC-Manual switch is located in the center right-hand portion of the panel, directly above the volume control knob.

(8) The CW-OFF-MCW switch is located in the center left-hand portion of the panel.

(9) The telephone jack is mounted in the lower right-hand portion of the panel, directly under the volume control knob.

c. Tuning Mechanism

The tuning knob shaft carries a 12-tooth pinion which drives a 144-tooth split gear on a countershaft. On the front end of the countershaft is a 36-tooth gear driving a 162-tooth split gear on which the dial is mounted. The dial rotates 320 degrees for 48 turns of the tuning knob.

On the rear end of the countershaft mentioned above is a 12-tooth pinion which drives a 96-tooth split gear on the tuning condenser shaft. The mesh of these latter gears is adjustable by jack sccrews at the ends of the condenser. Forty-eight turns of the tuning knob produces 180-degree rotation of the condenser.

A roller is mounted on the rear of the dial drive gear which engages with stop blocks on a sliding lock plate at the extreme ends of its travel. This stop plate is moved down by the roller, and a finger at the bottom of the plate is moved into position to stop rotation of the tuning shaft by interfering with a key on a collar carried on the tuning shaft. This locking action takes place during the last turn of the tuning knob in each direction. This last turn is beyond the 48 turns of the knob for rotating the tuning condenser so that the total number of turns of the tuning knob is 50 from one stop to the other.

d. Band Switch Drive

The band switch is driven through a 12-tooth pinion on the knob shaft to a 28-tooth gear on the band switch shaft. The knob rotates 70 degrees between positions, and the switch, 30 degrees. The switch rotates in the opposite sense from the knob. The knob shaft also carries the shutter which masks all scales on the tuning dial except the one in use. An index plate on the switch shaft positions the switch at each of its operating points.

The band switch shaft is secured to the rear of the indexing plate by means of a setscrew. If this setscrew is loosened, the shaft may be removed through a hole in the rear of the receiver case. The shaft, switch wafer, and coupling are so keyed that it is impossible to insert the shaft in the wrong way.

All gears in the tuning and band switch drive are cut 48 pitch 20 degree involute. Shafts are stainless steel running in brass bearings. Gears are of aluminum alloy with stainless steel hubs.

2. Receiver Mounting

a. Radio Receiver Rack, Navy Type CG-46128

The upper portion of these units consists of a framework of aluminum structural members firmly fastened together into a rigid and light-weight assembly. This assembly is supported on shock mountings which are attached to each corner of the receiver rack. The center studs of the form rubber shock absorbers are secured to four mounting feet by means of snap slides. The mounting bases are provided with holes so that they may be secured to the mounting surface. The receiver rack is provided with guides for the receiver unit which insure accurate positioning of the unit. The receiver rack has an electrical connecting receptacle at the rear for engagement with the corresponding plug on the radio receiver.

Each radio receiver can be easily removed from its rack, by unfastening the two wing nut clamps at the bottom front of the receiver unit and sliding the unit forward. The radio receiver must be moved approximately one inch forward in order to free the plug, after which it may be lifted from the rack without further forward motion, if desired. When installing the radio receiver on the rack, it is placed in the guides and pushed back, engaging the coupling plug at the rear. Then the two clamps at the front are hooked over the studs on the radio receiver and the wing nuts tightened. The action of these clamps is to press the receiver unit both down against the guides and back against the stop, holding it securely in place.

The receiver rack has a small compartment at the front containing an "A" jack, "B" jack, three-position switch, a power receptacle, and a ground post. Power and audio leads connect the plug at the rear of the mounting to these components. The leads are run in an aluminum tube. A cover is provided which can be removed for inspection when the rack is inverted. The three-position switch serves to connect the output of the radio receiver to either the "A" or "B" jack, or in the center position to isolate both jacks. Audio and power connections are completed through a cable receptacle on the rear of the front support. An external cable runs from this receptacle to the Junction Box, Navy Type CG-68028.

A binding post is provided on the rear of the front rack support for grounding the rack and radio receiver assembly.

The receiver unit connection plugs are such that the power cable can be directly connected to any radio receiver when it is removed from the rack for testing or servicing. Since the fuse is mounted on the radio receiver unit itself, it is still effective in protecting the equipment when operated in this way.

3. Junction Box, Navy Type CG-68028

The Junction Box Navy Type CG-68028 serves as a distributing point from which power is sent to each radio receiver, and audio circuits of the radio receivers are interconnected with the ICS and Sidetone circuits. It contains a power receptacle through which power is introduced from the plane distribution system and three receptacles through which power and audio wires connect to each radio receiver. Two of these receptacles are located at each end of the box.

Four jacks, two "A" and two "B", are located in the lower surface of the box and through which Sidetone and ICS connections are made.

The junction box, Navy Type CG-68028, has a mounting plate which is attached to the mounting surface and the box is secured to the plate with four nonremovable thumbscrews in the covers of the box. These thumscrews can be safely wired to adjacent fillister head screws to prevent unscrewing under vibration.

An equipment nameplate is attached to the front of the Junction Box.

4. Cables and Plugs

A cable is required to connect each radio receiver to the Junction Box, Navy Type CG-68028, and another to connect the Junction Box to the airplane power supply. All of the plugs are identical and all cables are made of the same material. The cable contains two heavy conductors for the power and two smaller conductors for the audio. The audio wires are not used in the power cable. Any of these plugs will fit directly to the radio receivers when the receivers are removed from the rack.

B. ELECTRICAL CIRCUITS

1. Radio Receiver Units

a. General

This radio receiving equipment is designed to permit operation of all three receiver units either simultaneously from a common antenna, or individually from separate antennas. A number of details in the radio receivers are influenced by the necessity for simultaneous operation from a common antenna. Foremost among these is the choice of local oscillator frequency on the various frequency bands with respect to the signal frequency. The oscillator frequencies are so chosen that nowhere, except in the 7.9 to 9.0 megacycle portion of the overlap range between Radio Receiver No. 2 and Radio Receiver No. 3, does the local oscillator frequency of one radio receiver fall within the tuning range of one of the other radio receivers. This is accomplished by operating the local oscillator at a frequency higher than that of the incoming signal on the lowest frequency band of each radio receiver, and at a frequency lower than that of the incoming signal on the highest frequency band of each radio receiver. On intermediate bands and in the extreme frequency bands of the range, considerations of image-frequency rejection and frequency stability govern the choice.

The antenna circuits of the radio receiver units are designed for series operation. Specifically, the proper connection is:

Unit No. 3—"A" post to antenna
Unit No. 2—"A" post to Unit No. 3 "G" post
Unit No. 1—"A" post to Unit No. 2 "G post
Unit No. 1—"G" post not connected

It is essential that the radio receivers be connected in this order, since the capacitance to ground of the antenna circuit of each radio receiver has a definite tuning effect upon the antenna circuit of each of the other two radio receivers. With this connection, signal currents of all frequencies, from the lowest to the highest, pass through the antenna coil of Radio Receiver Unit No. 3, the highest frequency receiver. Those frequencies lying within the range of that radio receiver find a direct path to ground through capacitor, C396, in Radio Receiver Unit No. 3. However, the middle and lower-frequency signal currents flow through the antenna coil of Radio Receiver Unit No. 2. The middle-frequency signal currents largely take the path to ground through capacitor, C201, in Radio Receiver Unit No. 2; while the lowest-frequency signal currents flow on through the antenna coil of Radio Receiver Unit No. 1.

When the radio receiver units are operated from separate antennas, the antennas should be connected to the respective "A" posts, and the "G" posts should be grounded.

The output circuits of the radio receiver units are likewise designed to permit operation either singly, or in parallel with substantially the same performance. This requires that the output impedance of each radio receiver unit be substantially higher than the loads (headphone) impedance, so that the radio receivers do not act as loads upon one another. This requirement is met by the use of a pentode type tube as an audio amplifier. A second limitation imposed by the parallel operation is that an audio-filter circuit does not appear in the output circuit of one radio receiver unit and not in the others. Under this condition, connection of the output circuits in parallel would alter the frequency characteristics of all the radio receiver units. This requirement is met by connecting the necessary filter circuit in series with the cathode of the a-f amplifier tube in each radio receiver unit, where it is isolated from the output circuit by the internal impedance of the tube.

b. Radio Receiver Unit No. 1, Type CG-46115

Reference is made in the following description to Schematic Diagram W-7350826.

Radio Receiver Unit No. 1 is a receiver of the superheterodyne type having one r-f (radio-frequency) amplifier stage, a frequency converter stage, two i-f (intermediate-frequency) amplifier stages, a diode detector stage, and an a-f (audio-frequency) amplifier stage. In addition, there are a separate AVC detector and a beat oscillator; these two additional functions being performed by the same tube which contains the main diode detector.

This radio receiver unit tunes from 200 kc to 1500 kc in four bands, as listed below in Column I. The intermediate frequency is 160 kc, and the local oscillator frequency thus varies over the ranges listed below in Column II.

	COLUMN I *Signal Frequency*	COLUMN II *Local Oscillator Frequency*
Band No. 1	200— 300 kc	360— 460 kc
Band No. 2	300— 500 kc	460— 660 kc
Band No. 3	500— 900 kc	660—1060 kc
Band No. 4	900—1500 kc	740—1340 kc

(1) Antenna Circuit

The proper antenna transformer, T101, T102, T103, or T104 is selected by multiple-circuit band switch, S101A, B. C. The secondary winding of the transformer is tuned by the first sction C109A of the gang tuning capacitor and by antenna trimmer capacitor C197, by means of which the tuning may be compensated for by change in the capacitance of the antenna.

Since on Band No. 4 the oscillator operates at a frequency lower than that of the received signal, it is necessary to include on that band padding capacitor, C117, in the circuit.

As a protection again high r-f voltages, a glow lamp, V107, is connected from the antenna post to ground. This lamp has very high impedance (hence no harmful effect upon the circuit) for voltages up to about

75 volts; above that point it becomes conducting, and thus acts to limit the input voltage.

Also connected between the antenna post and ground is a series tuned i-f wave trap, Z101, consisting of reactor, L107, fixed capacitor, C119, and variable capacitor, C194. When adjusted to resonance at the intermediate frequency of the radio receiver (160 kc), this trap serves to attenuate greatly the unwanted i-f signals reaching the grid of the r-f amplifier tube.

(2) R-f Amplifier Stage.

The r-f amplifier tube, V101, a Type—12SK7 pentode, amplifies the signal and transmits it to the control grid of the converter tube, V102, through one of the r-f transformers (T105, T106, T107, or T108). As in the antenna circuit, a padding capacitor, C193, is used in series with the secondary of Band No. 4 transformer, T108.

The proper transformer for a desired signal frequency is selected by means of multiple-circuit switch (S105A, B, C, D), which is ganged with the antenna band switch (S101A, B, C). One section of this switch (S105C) is used to alter the bias voltage in the cathode circuit of the r-f amplifier tube in order to obtain approximately the same over-all receiver sensitivity on each band. Three fixed resistors, R109, R111, and R154, are involved in this switching circuit. In addition, when in the Band No. 4 position, variable resistor, R110, is included in the circuit. This resistor is mounted concentrically with the shaft of gang tuning capacitor, C109, and is coupled to it. Resistor, R110, serves to maintain the sensitivity substantially constant over the range of Band No. 4.

A series resonant i-f wave trap, Z102, consisting of fixed inductor, L106, and variable capacitor, C121, is connected from the plate of the r-f amplifier tube to ground.

(3) Converter Stage

The converter tube, V102, a Type—12K8 triode-hexode, converts the frequency of the signal to 160 kc, amplifies it, and transmits it through the first i-f transformer, T109, to the control grid of the first i-f amplifier tube, V103.

The band switch (S106A, B, C, D) ganged with the antenna and r-f band switches, selects from the four oscillator coils (T110, T111, T112, and T113) the proper one for a desired frequency. A tuned plate oscillator circuit is used, with tickler feedback and shunt plate feed. Series padding capacitors (C147, C149, and C148) are used on the three lower frequency bands.

A common temperature-compensating capacitor, C132, is connected in parallel with tuning capacitor, C109C.

The converter tube has two cathode-bias resistors, R130 and R168. The extra bias resistor provides reserve gain to be drawn upon in the event of a cumulation of minor losses of sensitivity resulting in too low a sensitivity. If one of the resistors, R130, is short-circuited, the gain is increased about 50 per cent; if the other resistor, R168, is short-circuited, the gain is increased about 100 per cent. One resistor must always be left in the circuit.

(4) First I-f Amplifier Stage

The first i-f amplifier tube, V103, a Type—12SK7 pentode, amplifies the i-f signal and transmits it through the second i-f transformer, T114, to the control grid of the second i-f amplifier tube, V104. The low potential side of the secondary winding of the second i-f transformer is grounded through resistor, R162, and by-passed by capacitor, C170; in the presence of a signal of such magnitude as to cause grid current to flow in the grid circuit of the second i-f amplifier tube, V104, the grid bias on the amplifier tube is automatically increased, thus reducing its gain.

(5) Second I-f Amplifier Stage

The second i-f amplifier tube, V104, a Type—12SK7 pentode, further amplifies the i-f signal and transmits it through the third i-f transformer, T116, to the main detector diode (terminal 5, V106).

(6) Main Detector Stage

The i-f signal is rectified by the main diode detector (terminal 5, V106) one diode of a Type—12SR7 duo-diode triode, the rectified voltage appearing across load resistor, R165. The a-f component of the rectified votalge is coupled through capacitor, C176, to the volume control potentiometer, R152B. When the AVC-MAN switch, S102C, is in the AVC position, the arm of this potentiometer is connected to the control grid of the a-f amplifier tube, V105, and the volume is controlled by the potentiometer setting. When the AVC-MAN switch, S102C, is in the MAN position, the grid of the a-f amplifier is connected to the high potential side of the potentiometer, and the full output of the detector is delivered to the a-f amplifier regardless of the position of the potentiometer.

(7) A-f Amplifier Stage

The a-f signal is amplified by the a-f amplifier tube, V105, a Type—12A6 pentode, and transmitted through output transformer, T117, to the headphone jack, J101, and to the headphone circuit in power plug, P101. The cathode circuit of the amplifier includes a tapped reactor, L109, tuned by fixed capacitor, C173, to a frequency of approximately 150 cycles, and shunted by resistor, R178. The function of the tuned circuit is to reduce the amplification at a frequency of 150 cycles, by means of a negative feedback, so as to make the amplification at that frequency equal to that at 90 cycles. The shunting resistor, R178, prevents the negative feedback from being excessive.

(8) AVC Detector Stage

The output of the second i-f amplifier tube is also rectified by the AVC detector diode (terminal 4, V106) one diode of the Type—12SR7 duo-diode triode tube. Since load resistor R159, for this diode returns to ground instead of to the diode cathode, rectification is delayed by the amount of the voltage drop in resistor, R126, in the cathode circuit of the duo-diode triode. This resistor is by-passed, for i-f currents, by capacitor, C144. Full AVC voltage is applied to the r-f amplifier tube control grid and suppressor grid, and to the first i-f amplifier tube control grid.

(9) Beat Oscillator Stage

For reception of CW signals, the triode section of Type—12SR7 duo-diode triode tube, V106, is used as an oscillator. The oscillator circuit is contained within the same shields as the second i-f transformer, T114. This oscillator operates normally at 80 kc; it is ordinarily tuned off to 79.5 or 80.5 kc so that the audio frequency signal produced when its second harmonic is heterodyned with the i-f signal is about 1000 cycles. The coupling between the oscillator circuit and the i-f transformer is chiefly inductive.

(10) Manual Volume Control Circuit

The cathodes of the tubes whose grids are connected to the AVC circuit (V101 and V103) return to ground through variable resistor, R152A. When the AVC-MAN switch, S102A, is in the MAN position, this resistor operates to control the bias on these two tubes, thus controlling the r-f and i-f gain. In the AVC position, the variable resistor is short-circuited. Manual gain control resistor R152A, being ganged with the audio volume control potentiometer, R152B, the output of the radio receiver is controlled by a single knob, whatever the position of the AVC-MAN switch.

In order to avoid overloading of the i-f amplifier when receiving strong signals in the MAN position, with the volume turned up unnecessarily high, the grids of the controlled tubes are left connected to the AVC circuit even in the MAN position. Thus, excessively strong signals, instead of causing overload, produce an AVC voltage which reduces the amplifier gain to a safe point. In the MCW position, higher delay voltage is used for MAN than for AVC, to insure that full output of the radio receiver may be obtained. The change in delay is effected by switching in resistor, R128, in parallel with the one already in the circuit (R134) to increase the current bled into delay resistor, R126. In the CW position, full output is easily obtained, and the delay therefore being unimportant, is left unchanged.

(11) Power Supply

The filaments of the vacuum tubes are connected in series pairs, and the pairs connected in parallel across the 28-volt filament supply. This connection is made when MCW-OFF-CW switch, S103A, is placed in either the MCW or the CW position. This, at the same time, connects the primary winding of dynamotor, D101, to the 28-volt power supply.

The screen grid voltage for the r-f amplifier tube and the first i-f amplifier tube is supplied from a voltage divider (R157 and R166).

c. Radio Receiver Unit No. 2, Type CG-46116

Reference is made in the following description to Schematic Drawing WW-7350184.

Radio Receiver Unit No. 2 is a receiver of the superheterodyne type having two r-f amplifier stages, a frequency converter stage, three i-f amplifier stages, a diode detector stage, and an a-f amplifier stage. In addition, there is a separate AVC detector and beat oscillator, these two additional functions being performed by the same tube which contains the main diode detector.

This radio receiver unit tunes from 1.5 mc to 9.0 mc in four bands as listed below in Column I. The intermediate frequency is 915 kc, and the local oscillator frequency thus varies over the ranges listed below in Column II.

	COLUMN I *Signal Frequency*	COLUMN II *Local Oscillator Frequency*
Band No. 1	1.5—2.4 mc	2.415—3.315 mc
Band No. 2	2.4—3.8 mc	3.315—4.715 mc
Band No. 3	3.8—6.0 mc	4.715—6.915 mc
Band No. 4	6.0—9.0 mc	5.085—8.085 mc

(1) Antenna Circuit

The proper antenna transformer, T201, T202, T203, or T204 is selected by the multiple-circuit band switch (S201A, B, C, D). The secondary winding of the transformer is tuned by the first section, C208A, of the gang capacitor, and by the antenna trimmer capacitor, C209, by means of which the tuning may be compensated for changes in the capacitance of the antenna.

Since on Band No. 4 the oscillator operates at a frequency lower than that of the received signal, it is necessary on that band to include padding capacitor, C291, in the circuit (T204).

As a protection against high r-f voltages, a glow lamp, V209, is connected from the antenna post to ground. This lamp has very high impedance (and hence no harmful effect upon the circuit) for voltages up to about 75 volts; above that point it becomes conducting, and thus acts to limit the input voltage.

(2) First R-f Amplifier Stage

The first r-f amplifier tube, V201, a Type—12SK7 pentode, amplifies the signal and transmits it to the control grid of the second r-f amplifier tube, V202, through one of the first r-f transformers (T205, T206, T207, or T208). As in the antenna circuit, a series padding capacitor, C297, is used in the secondary circuit of the Band No. 4 transformer (T208).

The proper transformer for a desired signal frequency is selected by means of a multiple-circuit switch (S202A, B, C, D) which is ganged with antenna band switch, S201. A series resonant i-f wave trap is connected from the plate of the first i-f amplifier tube to ground.

(3) Second R-f Amplifier Stage

The second r-f amplifier tube, V202, a Type—12SK7 pentode, amplifies the signal and transmits it to the control grid of converter tube, V203, through one of the second r-f transformers, T219, T220, T221, or T222. As in the antenna and first r-f circuits, a series padding capacitor, C298, is used in the secondary circuit of Band No. 4 transformer, T222.

The proper transformer for a desired signal frequency, is selected by means of multiple-circuit switch, S203A, B, C, D, which is ganged with the antenna and first r-f band switches, S201 and S202. One section of switch, S203D, is used to alter amount of resistance in the cathode of the second r-f amplifier tube, so as to make the radio receiver sensitivity approximately constant from band to band.

(4) Converter Stage

The converter tube, V203, a Type—12K8 triode-hexode, converts the frequency of the signal to 915 kc, amplifies it and transmits it through the first i-f transformer, T209, to the control grid of the first i-f amplifier tube, V204.

Band switch, S204A, B, C, D, ganged with the antenna and the first and second r-f band switches, selects from oscillator coils, T210, T211, T212, and T213, the proper one for a desired frequency. A tuned-plate oscillator circuit is used, with tickler feedback and shunt plate feed. Series padding capacitors, C288, C289, and C290 are used on the three lower frequency bands.

A common temperature compensating capacitor, C238, is connected in parallel with tuning capacitor, C208D.

(5) First I-f Amplifier Stage

The first i-f amplifier tube, V204, a Type—12SK7 pentode, amplifies the i-f signal and transmits it through second i-f transformer, T215, to the grid of the second i-f amplifier tube, V205. An auxiliary cathode resistor, R253, is provided, which may be connected in parallel with the regular bias resistor, R220, in order to increase the radio receiver sensitivity approximately 100 per cent.

(6) Second I-f Amplifier Stage

The second i-f amplifier tube, V205, a Type—12SK7 pentode, amplifies the i-f signal and transmits it through the third i-f transformer, T214, to the grid of the third i-f amplifier tube, V-206.

(7) Third I-f Amplifier Stage

The third i-f amplifier tube, V206, a Type—12SK7 pentode, further amplifies the i-f signal and transmits it through fourth i-f transformer, T216, to the main detector diode (terminal 5, V208).

(8) Main Detector Stage

The i-f signal is rectified by the main diode detector (terminal 5, V208), one diode of a Type—12SR7 duo-diode triode tube, the rectified voltage appearing across load register, R237. The a-f component of the rectified voltage is coupled through a capacitor, C275, to the volume control potentiometer, R228B. When the AVC-MAN switch, S205B, is in the AVC position, the arm of this potentiometer is connected to the control grid of the a-f amplifier, V207, and volume is controlled by the potentiometer setting. When the AVC-MAN switch, S205B, is in the MAN position, the grid of the a-f amplifier tube is connected to the high potential side of the potentiometer, and the full output of the detector is delivered to the a-f amplifier regardless of the position of the potentiometer.

(9) A-f Amplifier Stage

The a-f signal is amplified by the a-f amplifier tube, V207, a Type—12A6 pentode, and transmitted through the output transformer, T217, to the headphone jack, J201, and to the headphone circuit in the power plug, P201. The cathode circuit of the amplifier includes a tapped reactor, L210, tuned by two fixed capacitors, C218 and C244, to a frequency of approximately 5200 cycles. The function of the tuned circuit is to reduce the amplification at frequencies above 4500 cycles, by means of negative feedback, to 20 db less than obtained at 400 cycles.

(10) AVC Detector Stage

The output of the third i-f amplifier tube is also rectified by the AVC detector diode (terminal 4, V208), one diode of the Type—12SR7 duo-diode triode tube. Since the load register, R233, for this diode returns to ground instead of to the diode cathode, rectification is delayed by the amount of the voltage drop in resistor, R218, in the cathode circuit of the duo-diode triode. This resistor is by-passed, for i-f currents, by capacitor, C255.

(11) Beat Oscillator Stage

For reception of CW signals, the triode section of the Type—12SR7 duo-diode triode tube, V208, is used as an oscillator. The oscillator circuit is contained in the same shield with the third i-f transformer, T214. This oscillator operates at 457.5 kc, its second harmonic being heterodyned with the i-f signal to produce an a-f signal. The coupling between the oscillator circuit and the i-f transformer is inductive and capacitive. The oscillator strength and the coupling are such that the oscillator signal at the detector, in the absence of any received signal, is not quite suffcient to operate the AVC. This provides the maximum sensitivity to CW signals.

When the MCW-OFF-CW switch, S207B, is thrown from the CW position to the MCW position, the beat oscillator tube is disconnected from the plate supply and a compensating resistor, R219, is substituted for it, maintaining the same current in the cathode resistor, R218.

(12) Manual Volume Control Circuit

The cathodes of the tubes whose grids are connected to the AVC circuit (V201, V202, V204, and V205) return to ground through variable resistor, R228A. When the AVC-MAN switch, S205C, is in the MAN position, this resistor operates to control the bias of these four tubes, thus controlling the r-f and i-f gain. In the AVC position, the variable resistor is short-circuited. The manual gain control resistor, R228A, being ganged with the audio volume control potentiometer, R228B, the output of the radio receiver is controlled by a single knob, whatever the position of the AVC-MAN switch.

In order to avoid overloading of the i-f amplifier when receiving strong signals in the MAN position, with the volume turned up unnecessarily high, the grids of the controlled tubes are left connected to the AVC circuit even in the MAN position. Thus excessively strong signals, instead of causing overload, produce an AVC voltage which reduces the amplifier gain to a safe point. Higher delay voltage is used for MAN control than for AVC, to insure that full output of the radio receiver may be obtained. The change in delay is effected by switching in an additional resistor, R247, in the cathode circuit of the beat oscillator tube, by means of a section of the MVC-AVC switch, S205D. Another section, S205A, simultaneously switches out an equal resistance from the plate supply circuit of the beat oscillator tube, thus maintaining constant plate-cathode voltage on this tube, and avoiding a shift in beat frequency when switching from MVC to AVC.

(13) Power Supply

The filaments of the vacuum tubes are connected in series pairs, and the pairs connected in parallel across the 28-volt filament supply. This connection is made when the MCW-OFF-CW switch, S207A, is placed in either the MCW or the CW position. This at the same time connects the dynamotor, D201, primary winding to the 28-volt supply.

The screen grid voltage for the two r-f amplifier tubes and the first two i-f amplifier tubes is supplied from a voltage divider (R226, R252, and R246).

d. Radio Receiver Unit No. 3, Type CG-46117

Reference is made in the following description to Schematic Drawing WW-7350185.

Radio Receiver Unit No. 3 is a receiver of the superheterodyne type having two r-f amplifier stages, a frequency converter stage, three i-f amplifier stages, a diode detector stage, and an a-f amplifier stage. In addition, there are a separate AVC detector and a beat oscillator, these two additional functions being performed by the same tube which contains the main diode detector.

This radio receiver tunes from 7.0 megacycles to 27.0 megacycles in five bands, as listed below in Column I. The intermediate frequency is 2275 kilocycles, and the local oscillator frequency thus varies over the ranges listed below in Column II.

	COLUMN I *Signal Frequency*	COLUMN II *Local Oscillator Frequency*
Band No. 1	7.0—10.0 mc	9.275—12.275 mc
Band No. 2	10.0—13.0 mc	12.275—15.275 mc
Band No. 3	13.0—17.5 mc	10.725—15.225 mc
Band No. 4	17.5—22.5 mc	15.225—20.225 mc
Band No. 5	22.5—27.0 mc	20.225—24.725 mc

(1) Antenna Circuit

The proper antenna transformer (T301, T302A, T302B, T304, or T305) is selected by multiple-circuit band switch, S301A, B, C. The secondary winding of the transformer is tuned by the first section (C309A) of the gang capacitor, and by antenna trimmer capacitor, C310, by means of which the tuning may be compensated for changes in the capacitance of the antenna.

Since on Bands No. 3, No. 4, and No. 5 the oscillator operates at a frequency lower than that of the received signal, it is necessary on Bands No. 3 and No. 4 to include padding capacitors, C397 and C398, in the circuit. The padding capacitor is not necessary on Band No. 5 because of the very high ratio of the radio-frequency to the intermediate-frequency, and the short tuning range.

As a protection against high r-f voltages, a glow lamp, V309, is connected from the antenna post to ground. This lamp has very high impedance (and hence no harmful effect upon the circuit) for voltages up to about 75 volts; above that point it becomes conducting, and thus acts to limit the input voltage.

(2) First R-f Amplifier Stage

The first r-f amplifier tube, V301, a Type—12SK7 pentode, amplifies the signal and transmits it to the control grid of the second r-f amplifier tube, V308, through one of the first r-f transformers (T306, T307A, T307B, T309, or T310). As in the antenna circuit, series padding capacitors are used on Bands No. 3 and No. 4 (T307B and T309). On Band No. 5 a single tuned circuit is used, instead of a transformer coupling (T310).

The proper transformer for a desired frequency is selected by means of multiple-circuit switch, S305A, B, C, which is ganged with antenna band switch, S301.

Another section of the same switch (S305D) is used to short-circuit part of the bias resistance, R345, in the cathode circuit of the second r-f amplifier tube, V308, on Bands No. 2, No. 3, No. 4, and No. 5, in order to make the sensitivity approximately the same on all bands.

(3) Second R-f Amplifier Stage

The second r-f amplifier tube, V308, a Type—12SK7 pentode, amplifies the signal and transmits it to the control grid of converter tube, V302, through one of the second r-f transformers (T324, T325A, T325B, T327, or T328). As in the antenna and first r-f circuits, series padding capacitors, C399 and C400, are used on Band No. 3 and Band No. 4 transformers, T325B and T327. The Band No. 5 coil is a single tuned circuit (T328). The proper transformer for a desired signal frequency is selected by means of multiple-circuit switch, S306A, B, and C, which is ganged with the antenna and first r-f band switches, S301 and S305. One section of the switch, S306D, is used to short-circuit variable resistor, R308, which is connected in the cathode circuit of the second r-f amplifier tube. This resistor, which is short-circuited on Bands No. 1, No. 2, and No. 5, is mounted concentrically with the gang capacitor shaft and connected thereto, and serves to maintain approximately constant receiver sensitivity over the band.

(4) Converter Stage

The converter tube, V302, a Type—12K8 triode-hexode, converts the frequency of the signal to 2275 kc, amplifies it and transmits it through the first i-f transformer, T311, to the control grid of the first i-f amplifier tube, V303.

The band switch, S307A, B, C, D, ganged with the antenna and the first and second r-f band switches, selects from oscillator coils, T314, T315, T316, T317, and T318, the proper one for a desired frequency. A tuned-plate oscillator circuit is used, with tickler feedback, and shunt plate feed through resistor, R314, and choke, L312. Series padding capacitors, C391 and C392, are used on Bands No. 1 and No. 2 (T314 and T315). A common temperature compensating capacitor, C346, compensates all coils; in addition, on Band No. 5 (T318), another compensating capacitor, C354, is employed.

The inductance of the oscillator coils is adjustable by means of concentric brass slugs; however, these slugs should not be moved before it is certain that readjustment is necessary, since their adjustment affects both the scale calibration and tracking and can most easily be made at the factory.

(5) First I-f Amplifier Stage

The first i-f amplifier tube, V303, a Type—12SK7 pentode, amplifies the i-f signal and transmits it through the second i-f transformer, T319, to the grid of the second i-f amplifier tube, V304.

(6) Second I-f Amplifier Stage

The second i-f amplifier tube, V304, a Type—12SK7 pentode, amplifies the i-f signal and transmits it through the third i-f transformer, T312, to the grid of the third i-f amplifier tube, V305. The cathode circuit of the second i-f amplifier tube, V304, contains two resistors, R340 and R343. Should a cumulation of effects result in an appreciable loss of sensitivity in the radio receiver, an increase in sensitivity of approximately two to one can be obtained by short-circuiting one of these resistors (R340).

(7) Third I-f Amplifier Stage

The third i-f amplifier tube, V305, a Type—12SK7 pentode, further amplifies the i-f signal and transmits it through the fourth i-f transformer, T321, to the main detector diode (terminal 4, V307).

(8) Main Detector Stage

The i-f signal is rectified by the main diode detector (terminal 4, V307), one diode of a Type—12SR7 duo-diode triode, the rectified voltage appearing across load resistor, R334. The a-f component of the rectified voltage is coupled through capacitor, C377, to the volume control potentiometer, R326B. When the AVC-MAN switch, S302B, is in the AVC position, the arm of this potentiometer is connected to the control grid of the a-f amplifier tube, V306, and volume is controlled by the potentiometer setting. When the AVC-MAN switch, S302B, is in the MAN position, the grid of the a-f amplifier tube is connected to the high potential side of the potentiometer, and the full output of the detector is delivered to the a-f amplifier regardless of the position of the potentiometer.

(9) A-f Amplifier Stage

The a-f signal is amplified by the a-f amplifier tube, V306, a Type—12A6 pentode, and transmitted through output transformer, T322, to the headphone jack, J301, and to the headphone circuit in the power plug, P301. The cathode circuit of the amplifier includes a tapped reactor, L315, tuned by two fixed capacitors, C417 and C420, to a frequency of approximately 5200 cycles. The function of the tuned circuit is to reduce the amplification at frequencies above 4500 cycles, by means of negative feedback, to 20 db less than obtained at 400 cycles.

(10) AVC Detector Stage

The output of the third i-f amplifier tube is also rectified by the AVC detector diode (terminal 5, V307), one diode of the Type—12SR7 duo-diode triode tube. Since load resistor, R330, for this diode returns to ground instead of to the diode cathode, rectification is delayed by the amount of the voltage drop in resistor, R325, in the cathode circuit of the duo-diode triode. This resistor is by-passed, for i-f currents, by capacitor, C375.

(11) Beat Oscillator Stage

For reception of CW signals, the triode section of the Type—12SR7 duo-diode triode tube, V307, is used as an oscillator. The oscillator circuit is contained in the same shield with the third i-f transformer, T312. This oscillator operates at 1137.5 kc, its second harmonic being heterodyned with the i-f signal to produce an a-f signal. The coupling between the oscillator circuit and the transformer is inductive and capacitive. The oscillator strength and the coupling are such that the oscillator signal at the detector, in the absence of any received signal, is not quite sufficient to operate the AVC. This provides the maximum sensitivity to CW signals.

When the MCW-OFF-CW switch, S303B, is thrown from the CW position to the MCW position, the beat oscillator tube is disconnected from the plate supply and a compensating resistor, R321 or R310, is substituted for it, maintaining the proper current in the cathode resistor, R325.

(12) Manual Volume Control Circuit

The cathodes of the tubes whose grids are connected to the AVC circuit (V301, V308, V303, and V304) return to ground through a variable resistor, R326A. When the AVC-MAN switch, S302C, is in the MAN position, this resistor operates to control the bias on these four tubes, thus controlling the r-f and i-f gain. In the AVC position, the variable resistor is short-circuited. The manual gain control resistor, R326A, being ganged with the audio-volume control potentiometer, R326B, the output of the receiver is controlled by a single knob, whatever the position of the AVC-MAN switch.

In order to avoid overloading of the i-f amplifier when receiving strong signals in the MAN position, with the volume control turned up unnecessarily high, the grids of the controlled tubes are left connected to the AVC circuit. Thus, excessively strong signals, instead of causing overload, produce an AVC voltage which reduces the amplifier gain to a safe point. Higher delay voltage is used for MAN than for AVC, to insure that full output of the receiver may be obtained. The change in delay is effected by switching compensators, R321 and R310, thus changing the current in the cathode resistor, R325. In the CW position, full output is easily obtained and the delay, therefore, being unimportant, is left unchanged.

(13) Power Supply

The filaments of the vacuum tubes are connected in series pairs, and the pairs connected in parallel across the 28-volt filament supply. This connection is made when the MCW-OFF-CW switch, S303A, is placed in either the MCW or the CW position. This, at the same time, connects the dynamotor, D301, primary winding to the 28-volt supply.

The screen grid voltage for the two r-f amplifier tubes and the first two i-f amplifier tubes, is supplied from a voltage divider, R328, R344, and R342.

2. Receiver Rack, Type CG-46128

Reference is made in the following description to Schematic Diagram P-7763365.

The indivdual receiver racks are wired with a plug in the rear so that any radio receiver used can be plugged into a triple mounting receiver rack (RAX), or into the individual receiver rack (RAX-1). Each individual receiver rack is also equipped with a small front panel on which is mounted a three-position switch S604 and telephone jacks "A" and "B," J609 and J610. This allows the operator to switch the output of each radio receiver to the "A" or B" jack and also enables him to plug into the 'A" or "B" jack at each radio receiver. If the operator wishes to listen to a particular radio receiver without putting the receiver output into the line connecting to the "A" or "B" position, he then plugs into the jack on the receiver panel and throws the three-position switch to the middle position.

Directly in back of the front panel, attached to each receiver rack, is the plug which connects power from the junction box, Navy Type CG-68028, to each radio receiver and also connects jack "A" and "B" to the junction box.

3. Junction Box, Navy Type CG-68028 (See Schematic Diagram P-7763365)

The junction box, Navy Type CG-68028, is arranged to connect to the interphone and also to the 28-volt supply.

The junction box is equipped with two "A" position jacks and two "B" position jacks and with four receptacles. The power supply cable from the battery plugs into P501 receptacle, and the cable from each radio receiver plugs into the remaining receptacles. Transfer switches are provided on the individual receiver racks.

III. INSTALLATION

A. LOCATION

Where sufficient space permits, the three radio receivers on their mounting racks should be located in front of the operator's position, so the controls on all radio receivers are within easy reach and view of each operator. A convenient arrangement would be to mount the radio receivers side by side on a shelf above the operating table, so that the operating panels are at about eye level. The front edge of the mounting feet should be flush with the front of the shelf for ease in manipulating the tuning controls. The mounting shelf should be horizontal and flat and of sufficient strength to support the weight of the assembly during take off and flight maneuvers without excessive deflection.

Where sufficient space for the arrangement described above is not available, the radio receiver may be located in a number of ways. Only general instructions can be given for alternative arrangements. The radio receivers may be placed one over the other by using suitable mounting shelves. In any case general precautions given below should be observed.

The individual radio receivers, on their mountings, should be arranged as near each other and to the transmitters or lead-in as possible, to reduce the length of antenna connections to a minimum. Space for free riding must be provided around each unit as indicated on drawing W-7350950. If the radio receivers are placed side by side a space of two inches between them will be required, as they cannot be expected to vibrate in synchronism at all times. More space is desirable, especially above the receivers, if available, for convenience in placing slip covers, removing radio receivers from the mounting, and replacing tubes.

The junction box, Navy Type CG-68028, should be located for convenience in connecting to each receiver, the power supply, the I.C.S. system, and Sidetone connections. It need not necessarily be easily accessible to the operators, unless it is desired to use the phone jacks on it instead of those in the interphone system. The cables from the junction box, Navy Type CG-68028, to each radio receiver should in general be not more than five feet long and the power cable not more than ten feet long.

The cables should be as short as possible to keep the voltage drop to a minimum. Operation will be obtained on wider voltage variations but some impairment in performance will be found.

It is desirable to attach the power cable to the plane power supply as close to the battery as possible, to reduce the amount of noise picked up from other devices on the power lines.

B. RECEIVER UNITS

With the slip covers removed, the radio receivers should be removed from the mounting racks by loosening the wing nuts and links at the front of each radio receiver, and pulling the radio receivers straight forward to disengage the plugs at the rear. Remove the four mounting feet from the racks by disengaging the snap slides on each foot. Attach the mounting feet to the shelf as indicated on Drawing W-7350950. The mounting racks should be replaced and safety wired.

A ground wire should be run from the post at the left front of each mounting rack to the nearest available ground. If the supporting surface is well grounded to the plane structure this ground wire should attach to it near the ground post. The wire may be insulated or bare stranded wire about No. 18 and enough slack allowed to permit free riding on the shock mounting. If the mounting surface is not well grounded, ground strips of ample size should be run from the anchor point of the ground wire to the nearest available true ground. These strips should preferably be tinned copper about 0.010 inch thick by 1 inch wide.

C. JUNCTION BOX NAVY TYPE CG-68028

The junction box should be removed from its mounting plate by unscrewing the four thumbscrews on the front surface, and the plate mounted as indicated on Drawing M-7465393. The box should then be replaced and the thumbscrews safety wired.

D. CABLES

The cable lengths should be determined and the cables made up as shown on M-7465168. One power cable, Part 2 on M-7465168, and three cables, Part 3, are required for the entire installation. Cables must have sufficient slack to allow the radio receivers to ride freely on their mountings.

The cables should be plugged up and safety wired. Note that the cables must be plugged into the receiver racks before the radio receivers are placed on the racks, as the receptacles are not accessible after the radio receivers are in place. The cables may be bonded to ground as required, making sure that the last bond is at least 18 inches from the receiver mounting and that proper slack for free riding is provided.

Place the radio receivers on the racks and safety wire the wing nuts in place. If slip covers are to be used they may now be put in place, slipping the rear of the cover over the back of each radio receiver and drawing it down over the units and snapping the elastic band at the front under the clamps. For operation the front flaps of the slip covers are folded back on top of the radio receivers and secured in place by the snap fasteners provided. Care should be taken not to put the covers on wrong side out. The hems along the sides at the bottom are to be on the *outside* of the covers.

E. CONNECTIONS

Warning

This radio receiving equipment should be connected only to a 24-volt battery, the negative terminal of which is grounded. The negative supply terminal is connected, within each radio receiver unit, to the radio receiver chassis.

The supply voltage should remain inside the limits of 29 volts maximum and 22 volts minimum. Operation at voltages higher than 29 volts will decrease the life of the tubes and may result in other damage to the radio receiver equipment, and at voltages below 22 volts, proper operation cannot be expected.

1. Cables

When connecting the power cable to the 24-volt battery, connect the white lead to positive and the black lead to negative.

The power cable plug should be inserted into the receptacle on the junction box, Navy Type CG-68028, and the clamp ring safety wired to prevent loosening. Sidetone and I.C.S. cords may be plugged into the "A" and "B" jacks, if desired.

2. Antenna and Ground Connections

Connections between the "A" (antenna) and "G" (ground) binding posts on the front panels should be made using lengths of stranded rubber-covered wire about No. 18 in size. These wires should be supported well away from ground on intermediate stand-off insulators, if their length requires such support. The antenna connection, to the Type CG-46117 Radio Receiver, should be made with stranded rubber-covered wire supported well away from ground on stand-off insulators. Sufficient slack must be left in all wires to permit free riding. No connection to the "G" (ground) post is required on the Type CG-46115 Radio Receiver when the three radio receivers are connected in series. The post marked "G" on this receiver is for use only when it is to be used by itself directly on an antenna.

Care should be taken to connect the radio receivers in series as shown on W-7350950, that is with Radio Receiver CG-46117 next to the antenna, then Radio Receiver CG-46116 and Radio Receiver CG-46115 next to ground. Any other connections will result in serious loss of performance.

Connect the antenna to the antenna post of Radio Receiver Unit No. 3, and interconnect the receiver units as shown on Outline Drawing W-7350950. Do not ground the "G" post on Radio Receiver Unit No. 1.

When any one of these receiver units is to be used alone, that is, with no other receiver units connected to the antenna, then its "G" post should be grounded.

F. ADJUSTMENT OF ANTENNA TRIMMERS

The antenna trimmer should be adjusted on each radio receiver unit with a signal which falls near the high frequency end of any one of the bands in that particular unit on which the trimmer is being adjusted.

IV. OPERATION AND ADJUSTMENTS

Warning

1. The maximum voltage present in this radio receiving equipment is 180 volts d.c. It is not possible to come in contact with any wires or terminals carrying this voltage when the radio receiver is completely assembled; however, removal of either the top or bottom cover exposes terminals carrying high potential. Ordinary servicing and test operations are easily carried out without danger, but when, in the course of servicing or testing, it is necessary to reach into the chassis, the power should be disconnected from the radio receiver with an external switch, or by removing the power plug.

2. It should especially be noted that in Radio Receiver Unit No. 3, Type CG-46117, when the band switch is set on Band No. 5, the second and third stator sections of the gang capacitor carry the full plate voltage of the radio receiver. For this reason, whenever it is necessary to connect a signal generator to one of these circuits, connection should be made through a capacitor of 0.006 mmfd.

A. OPERATION

1. Radio Receiver Units

The power to each radio receiver unit is controlled by the MCW-OFF-CW switch on its front panel. When the MCW-OFF-CW switch is in the OFF position, the receiver power, both filament and high voltage, is off. When the switch is in either the MCW or CW position, the receiver power is on.

After turning on the power, about 7 seconds will be required before the tubes have heated sufficiently to produce any sound in the headphones, and about an additional 15 seconds to reach operating sensitivity.

Any frequency within the range of a receiver unit may be selected by means of two operations: first, set the band selector switch to the band which includes the desired frequency; second, operate the tuning control until the dial scale shows the desired frequency under the index line.

The receiver sensitivity for weak signals will be maximum when the volume control is at maximum, regardless of whether the "AVC-MAN" control is in the "AVC" or "MANUAL" position. Ordinarily, the "AVC" position should be used for radio-telephone signals to avoid fading of signals. "MANUAL" should be used for CW reception since, on "AVC," the time constant of the AVC circuit would cause the receiver sensitivity to vary during the keying.

For MCW or radio telephone reception, the "CW-OFF-MCW" switch should be in the "MCW" position. For CW reception it should be in the "CW" position, under which condition a heterodyne oscillator is switched on to make the CW signal audible.

The antenna trimmer, marked "ANT," need not be adjusted during the operation of the radio receiver, unless the antenna is changed, in which case it may be retuned on any signal, preferably at the high-frequency end of a band.

The absolute sensitvity of each radio receiver unit is approximately twice the required absolute sensitivity. The large number of slightly variable factors affecting the receiver sensitivity make this desirable, in order that even after long use, tube replacements, handling, and exposure to extreme temperatures, humidity and vibration, the full required sensitivity may be obtained. For this reason it will rarely be found necessary to turn the volume control to "MAX," except for convenience in locating a signal.

The simultaneous operation of three superheterodyne radio receivers from a common antenna and a common power supply makes possible a large number of spurious signals. By careful design, the amplitude of most of these signals has been held to a value which makes them inoffensive, if not inaudible. Some of these signals occur at frequencies where they cannot be received by the same radio receiving equipment which produces them although they lie within the tuning range of the equipment. In this class are the strongest of the signals, the fundamental frequencies of the high-frequency oscillators. The only frequency range where these can be received is in the overlap range between Radio Receiver Unit No. 2 and Radio Receiver Unit No. 3 (7.0 to 9.0 mc). As Radio Receiver Unit No. 2 is tuned from 7.915 mc to 9.0 mc, the high-frequency oscillator of that unit will be tuned from 7.0 to 8.085 mc. All signals of this type have amplitudes less than 200 microvolts and usually less than 75 microvolts.

Harmonics of the high-frequency oscillator in Radio Receiver Unit No. 1 may be received in Radio Receiver Units No. 2 and No. 3, and harmonics of the high-frequency oscillator in Radio Receiver Unit No. 2 may be received in Radio Receiver Unit No. 3. The strongest of these harmonics will be found to range from 1 to 5 microvolts, the strength decreasing with higher order harmonics.

The beat oscillator frequency in Radio Receiver Unit No. 1 is 80 kc, so that the lowest harmonic to be in tuning range of the Radio Receiving Equipment is the third, at 240 kc. That, and the next few higher harmonics are noticeable, but not strong enough to bother.

The beat oscillator frequency in Radio Receiver Unit No. 2 is 457.5 kc. The fundamental and the second harmonic are detectable in Radio Receiver Unit No. 1, but not large enough to cause serious interference. The next few higher harmonics are audible in Radio Receiver Unit No. 2, but their amplitude is very small. Harmonics of high enough order to be tuned by Radio Receiver Unit No. 3 are inaudible.

The beat oscillator frequency in Radio Receiver Unit No. 3 is 1137.5 kc. The fundamental and all the audible harmonics fall in the range of Radio Receiver Unit No. 2; however, all are very small in amplitude.

In addition to the beat oscillator signals, which are heard only when the interfering radio receiver is on CW, it is possible to obtain Radio Receiver Unit No. 2 i-f signals in Radio Receiver Unit No. 1 and Radio

Receiver Unit No. 3 i-f signals in Radio Receiver Unit No. 2. For example, when Radio Receiver Unit No. 2 is tuned to any signal, a small amount of the 915 kc i-f voltage produced reaches Radio Receiver Unit No. 1. Again, this effect has been minimized by the most careful design.

2. Junction Box, Navy Type CG-68028

The junction box mounted on the receiver rack gives great operating flexibility to this radio receiving equipment. Individual switches for the receiver units permit each receiver headphone circuit to be connected to either of two external circuits plugged into the junction box. Thus all three radio receivers may be connected to circuit "A," and circuit "B" left clear for interphone; or two radio receivers may be connected to circuit "A"; and the third to "B" along with interphone or transmitter sidetone. Any receiver may be entirely disconnected from the external circuits by throwing its switch to the middle (OFF) position; in this condition the radio receiver can still be used by plugging headphones into the jack on the front panel of the receiver unit.

It must be remembered that when a radio receiver unit is connected to a circuit already carrying signals, either from another radio receiver, interphone, or sidetone, those signals will also be audible at the headphone jack on the radio receiver itself.

Even in cases where two of the radio receivers are connected to one circuit and the other to the second circuit, it is possible for one operator to guard all three receivers by plugging split headphones into the "A" and "B" circuits.

When a receiver is standing by, in an operative condition but not in use, the power drain will be minimized by setting the controls to MAN, volume at MIN.

B. ADJUSTMENTS

The following instructions apply to all three receivers, although there are slight individual differences. Where reference is made to a specific component, such as a trimmer capacitor, the symbol number for that component is given for each receiver.

1. Tuning Adjustments

a. Beat Oscillator

The beat oscillator frequency is adjustable by means of the trimmer capacitors (C141, C250B, C342A) to any frequency within about 10 kc of the nominal intermediate frequency. The correct method of adjusting this is as follows: With the radio receiver on "MCW," tune in a modulated signal from a signal generator at any frequency, tuning carefully for maximum output. Remove modulation from the signal generator, and switch the radio receiver to "CW." Adjust the B.F.O. trimmer until the beat note is of a desirable frequency. The beat oscillator can be set on either side of the signal, and ordinarily it is immaterial which side is chosen. However, there may be occasions where an interfering signal is known to be present on a particular side of a wanted signal, in which case it would be desirable to tune the beat oscillator on the other side of the wanted signal. The procedure for this adjustment would be, first, to do as instructed above, using a signal which falls in the same band of the radio receiver as the particular wanted signal. Having made this adjustment, tune the receiver slowly in the direction of the unwanted signal. If the beat note increases in frequency, the adjustment is correct; if it decreases, the radio receiver should be retuned to the signal generator frequency, and the beat oscillator trimmer turned in the direction which causes a decrease in the beat frequency until the frequency passes through zero and again reaches the desired value.

b. I-f Amplifier

For best alignment of the i-f transformers a visual equipment is recommended. Realignment should not be undertaken without first making sure that it is necessary. Unless the selectivity of the radio receiver deviates appreciably from the figures given in the test data, the i-f amplifier should be left alone.

If realignment is necessary, and visual alignment equipment is available, the procedure is as follows:

Set the radio receiver controls to "MCW-MAN" and connect the cathode ray oscilloscope vertical deflection plates, respectively, to the radio receiver chassis and to the high potential end of the audio detector load resistor (Radio Receiver No. 1: junction of R165, C176; Radio Receiver No. 2, junction of R237, C275; Radio Receiver No. 3, junction of R334, C377). Apply the i-f signal from the visual alignment signal generator to the control grid (pin 4) of the third i-f amplifier. Ascertain that the mean frequency of the signal generator output is equal to the nominal i-f (160 kc; 915 kc; 2.275 mc) and the sweep width approximately 100 kc. Adjust the trimmers of the fourth i-f transformer to give the maximum height of picture obtainable with tracking of the two curves.

Transfer the signal input leads to the grid of the second i-f amplifier and reduce the signal input, if necessary, to avoid overload. Adjust the trimmers in the third transformer to obtain the maximum height with tracking of the two curves.

The procedure followed on the third i-f transformer should now be repeated on the second i-f transformer, the signal being applied to the grid of the first i-f amplifier. When the alignment up to this point is satisfactory, change the input to the top cap grid of the converter and again follow the same procedure to align the first i-f transformer.

Once a stage has been aligned and the signal input moved to the next preceding stage, it should not be necessary to readjust any of the aligned stages.

If visual type aligning equipment is not available, a signal generator may be used. With a modulated signal, using an output meter, align each trimmer for maximum output at the nominal intermediate frequency, starting with the signal generator connected to the grid of the last i-f amplifier tube. In Radio Receiver Units No. 1 and No. 2, after aligning the diode transformer, it will be necessary to check the symmetry of the selectivity curve at the 6 db attenuation points, which should be spaced the same number of cycles from the nominal intermediate frequency. This check is necessary on these transformers because their coupling is greater than critical, and a simple alignment for maximum output does not necessarily result in a symmetrical curve.

c. R-f Amplifier and Oscillator

If the tuning dial scale reads the correct frequency on all bands, the oscillator trimmers should not be touched. If it reads correctly on some bands, but not on others, readjustment of the trimmers on the bands reading incorrectly will probably correct the readings. This adjustment should be made about 5 turns of the crank from the high-frequency end of the calibrated band. Inability to obtain tracking of the dial with the correct frequency throughout a band indicates a defect in the oscillator coil or the oscillator padding capacitor or gang condenser.

When the oscillator is tracking the dial correctly on all bands, the r-f trimmers may be adjusted for maximum output, after tuning the radio receiver carefully to a modulated signal falling about 5 crank turns from the high-frequency end of the band. CAUTION: See Warning Paragraph heading Section VI on Operation and Adjustments.

d. I-f Trap

The i-f trap should be adjusted by applying a signal at the intermediate frequency to the antenna terminal and adjusting the trap trimmer for minimum output.

On Radio Receiver Unit No. 2, the wave trap adjusting screw must not run too far in, or the iron core may touch the coil terminal, causing a short circuit on the high voltage. The trap should tune with at least 3/16 in. of the screw projecting out of the top plate of the coil box.

e. A-f Trap

In Radio Receiver Units No. 2 and No. 3, a parallel resonant circuit is used in series with the cathode of the a-f amplifier tube to produce the desired sharp cutoff of high frequencies. This trap (L210, L315) is preferably adjusted with the three receiver output circuits connected, in parallel, to a 300-ohm load. In that case, each trap should be adjusted to make the output at 4500 cycles, 20 db below that at 400 cycles. With this adjustment, the attenuation should go through a maximum at approximately 6000 cycles.

V. MAINTENANCE

INSPECTION

The Navy Model RAX-1 Radio Receiving Equipment should be given a flight inspection before every radio flight, according to the following routine:

Flight Inspection.

1. Examine tubes in each radio receiver unit. Be sure that each tube is in the socket market for that type and that all control grid clips are attached. *Push each tube all the way into its socket.*

2. Inspect all snapslides and see that each radio receiver unit is secured to the rack.

3. Check operation of switch controls, and be sure that radio receiver is operating. Listen for noise with volume control advanced to maximum. Receiver hiss should be plainly audible.

4. Check radio receiver input alignment by tuning in a weak signal and varying the position of the antenna trimmer to make sure that the input circuit is tuned to resonance, or by adjusting the trimmer for maximum noise with no signal.

5. Turn up the engine past the speed at which the charging generator cuts in and check the ignition and generator noise.

6. Check telephone cord and telephone plug for open or intermittent contacts. Check telephone receivers. *High-impedance phones cannot be used with the Navy Model RAX-1 Radio Receiving Equipment.*

7. Measure supply voltage with the airplane engine running at least 1500 r.p.m.

DO NOT ALLOW RADIO RECEIVING EQUIPMENT TO BE OPERATED IF THIS VOLTAGE IS LESS THAN 22 VOLTS OR MORE THAN 29 VOLTS.

NOTE:

Never operate the Radio Receiving Equipment on the ground longer than is necessary to complete this inspection. *Never leave the airplane without turning the Radio Receiver Power Switch to "OFF."*

Service Inspection

The following service inspection should be made after every 15 hours of service.

1. Check airplane battery with hydrometer.

2. Check operation of voltage regulator of charging generator, adjusting it to assure consistent operation of generator at approximately 28 volts.

3. Check bonding of cables and contacts between antenna and ground wires and their respective binding posts on the Radio Receiver.

4. *Clean all antenna insulators*, particularly those which are exposed to the engine exhaust, and check contacts on the lead-in insulators.

5. Lubrication

a. Dynamotor

NOTE ON DYNAMOTOR LUBRICATION: *If the Radio Receiver is operating satisfactorily with dynamotor noise at a suitably low-level, the Dynamotor Unit should be left alone. When this machine is in proper condition, manipulation of the brushes or commutators is apt to do more harm than good.* The dynamotor may require lubrication about every 500 hours of operation, with a light ball bearing grease. Access to the bearings is obtained by removing the end covers held by screws and then removing the circular plates on the end of the bearing housing. Do not put much lubricant in these bearings. Do not use vaseline, or any other lubricant not prepared especially for ball bearings, or the armature will stick. Use Navy Aero Spec. M-372, Air Corps GL 375, or Lubrico M-6 grease in dynamotor ball bearings, applying enough to cover the bearings. If rough turning or excessive looseness is noticed after the bearings are cleaned and greased, replacement should be made.

Never allow oil or grease to get on the commutators. Remove dirt, grease, or oil from the commutator with a clean dry cloth. DO NOT USE EMERY ON A COMMUTATOR. In time the commutator will become covered with a dark or semitransparent film which is not a cause of noise and should be preserved thereon. The only parts besides bearings that are apt to require replacement during the life of the machine are the brushes. Removal of the end covers gives access to the brushes. Remove old brushes by unscrewing brush caps and draw worn brushes out of the holders. Be sure that the new brush is installed in the same relative position as the original brush. Proper brush seating is essential for satisfactory operation.

NEW BRUSHES ON EITHER HIGH- OR LOW-VOLTAGE COMMUTATORS MUST BE SEATED BY OPERATING THE MACHINE AT LEAST 10 HOURS AT NORMAL LOAD BEFORE PLACING MACHINE IN SERVICE. A dynamotor with new brushes may be noisy and inefficient in operation until brushes are properly run in.

b. Tuning Mechanism

All shafts of the tuning mechanism are lubricated with low, cold test instrument oil which has been treated to have free flowing properties at —32° C (—25.6° F). In addition, a rust preventative and an oxidation inhibitor have been added. A suitable oil for this application is General Electric oil D6B5, but any instrument oil having similar properties may be used.

The tuning knob has a small friction brake running on the inside to prevent creeping under vibration. This brake should be lubricated with flake graphite such as Dixons "Microfyne" to avoid sticky operation. The graphite may be blown in through the setscrew holes or the knob may be removed for access to the brake shoes.

c. Plugs

Plugs and receptacles should be treated with a suitable antisieze compound to prevent the plug and receptacle from freezing together.

6. Slip Covers

Waterproof slip covers are supplied for all the Receiver Units with each Model RAX-1 Equipment. It is of vital importance that these units be protected from water and oil spray when not in use, by means of these covers.

VI. LOCATION AND CORRECTION OF TROUBLES

A. TEST DATA

The following data will be found useful in tracing trouble when a radio receiver unit fails to operate properly.

1. Chassis Voltages

Table I gives socket voltages to ground measured with a 200 ohm per volt meter. The power supply voltage is 28 volts, and no signal is applied. The standard conditions for the panel controls are: MCW, MAN, volume MAX, Band No. 1, low-frequency end.

TABLE 1

a. Radio Receiver Unit No. 1, Type CG-46115

Socket	*Controls*	Terminals							
		1	2	3	4	5	6	7	8
X101	Standard	0	27	0		4.8	87	13.5	152
X101	Band No. 2	0				6			
X101	Band No. 3	0				4.8			
X101	Vol. MIN	0				37.5			
X101	Band No. 4	0				0			
X102	Standard	0	13.5	15.5	91		57	0	6.6
X103	Standard	0	27	0		4.3	85	13.5	153
X104	Standard	0	13.5	0		2.6	83	0	150
X105	Standard	0	13.5	135	153	0		27	7.6
X106	Standard	0		31.3			0	0	13.5
X106	AVC	0		14.5					
X106	CW	0		17.5			40		

b. Radio Receiver Unit No. 2, Type CG-46116

Socket	*Controls*	Terminals							
		1	2	3	4	5	6	7	8
X201	Standard	0	27	0		3.1	92	13.5	135
X201	Vol. MIN	0				24			
X202	Standard	0	13.5	0		6.4	92	0	140
X202	Band No. 2	0				8.2			
X202	Band No. 3	0				4.9			
X202	Band No. 4	0				2.9			
X203	Standard	0	0	148	85		65	13.5	3.2
X204	Standard	0	27	0		5	90	13.5	124
X205	Standard	0	27	13.5		3.4	100	13.5	132
X206	Standard	0	13.5	5.2		5.2	122	0	142
X207	Standard	0	13.5	135	150	0		27	6.8
X208	Standard	0		37.5			0	0	13.5
X208	AVC	0		14.5			0		
X208	CW	0		37.5			110		

c. Radio Receiver Unit No. 3, Type CG-46117

Socket	*Controls*	Terminals							
		1	2	3	4	5	6	7	8
X301	Standard	0	27	0		2.5	92	13.5	132
X301	Vol. MIN	0				25			
X302	Standard	0	0	150	95	4	80	13.5	4.1
X303	Standard	0	27	0		4.2	92	13.5	145
X304	Standard	0	27	0		6.1	92	13.5	145
X305	Standard	0	13.5	0		3.5	106	0	145
X306	Standard	0	13.5	135	150	0		27	6.8
X307	Standard	0	29	39	24.5		0	0	13.5
X307	AVC	0	16	16	13.5		0		
X307	CW	0	15.5	25	12		88		
X308	Standard	0	13.5	0		6	97	0	145
X308	Band No. 2	0				2.6			
X308	Band No. 3	0				2.7			

2. Chassis Resistances (Socket Terminals to Ground)

Table II gives resistances measured from socket terminals to ground. The standard conditions for the panel controls are MCW, MAN, volume MAX, Band No. 1, low-frequency end; power disconnected, and dynamotor removed.

TABLE II

a. Radio Receiver Unit No. 1, Type CG-46115

Socket	*Controls*	Terminals							
		1	2	3	4	5	6	7	8
X101	Standard	0	9.5	1.5 meg.	1.5 meg.	1,200	17,000	9.5	18,000
X101	Band No. 2	0				2,200			
X101	Band No. 3	0				1,200			
X101	Vol. MIN	0				7,000			
X101	Band No. 4	0.				0			
X101	Band No. 4 (H.F. End)	0				4,500			
X102	Standard	0	9.5	18,000	29,000	150,000	80,000	0	800
X103	Standard	0	9.5	0	2.4 meg.	1,000	17,000	9.5	18,000
X104	Standard	0	9.5	0	1.5 meg.	330	53,000	0	18,000
X105	Standard	0	9.5	18,000	17,000	800,000		9.5	410
X106	Standard	0	230,000	9,000	400,000	470,000	INF	0	9.5
X106	AVC	0		9,500			INF		
X106	CW	0		9,500			35,000		

b. Radio Receiver Unit No. 2, Type CG-46116

Socket	*Controls*	Terminals								
		1	2	3	4	5	6	7	8	Cap
X201	Standard	0	9	1.5 meg.	2.5 meg.	300	21,000	11	23,000	
X201	Vol. MIN	0				6,500				
X202	Standard	0	11	0	2.5 meg.	1,500	21,000	0	23,000	
X202	Band No. 2	0				3,300				
X202	Band No. 3	0				800				
X202	Band No. 4	0				300				
X203	Standard	0	0	21,000	31,000	51,000	58,000	11	330	1 meg
X204	Standard	0	9	0	1.5 meg.	1,200	25,000	11	25,000	
X205	Standard	0	9	11	1.5 meg.	300	20,000	11	23,000	
X206	Standard	0	11	510	1.5	510	31,000	0	22,000	
X207	Standard	0	11	22,000	21,000	800,000		9	420	
X208	Standard	0	220,000	29,000	470,000	350,000	INF	0	11	
X208	AVC	0		13,000			INF			
X208	CW	0		39,000			65,000			

c. Radio Receiver Unit No. 3, Type CG-46117

Socket	*Controls*	Terminals								
		1	2	3	4	5	6	7	8	Cap
X301	Standard	0	9	1.5 meg.	2 meg.	220	16,000	11	16,000	
X301	Vol. MIN	0				6,500				
X302	Standard	0	0	16,000	23,000	68,000	27,000	11	330	470,000
X303	Standard	0	9	0	1.5 meg.	560	15,000	11	14,000	
X304	Standard	0	9	0	1.5 meg.	1,400	15,000	11	14,000	
X305	Standard	0	11	0	INF	330	33,000	0	14,000	
X306	Standard	0	11	15,000	14,000	800,000		9	420	
X307	Standard	0	150,000	8,200	440,000	470,000	INF	0	11	
X307	AVC	0		8,200						
X307	CW	0		9,100			52,000			
X308	Standard	0	11	0	2 meg.	1,220	15,000	0	16,000	
X308	Band No. 2	0				220				
X308	Band No. 3	0				225				
X308	Band No. 4 (H. F. End)	0				2,700				

3. Miscellaneous Chassis Tests

In addition to the voltages and resistance tabulated above, there are a number of voltages which cannot be checked with an ordinary voltmeter on account of the effect of the meter and leads on the circuit. For example, the grid-cathode voltage of the oscillators is an important indication of the proper operation of the oscillators, but readings must be taken by a special method to be dependable. Table III gives voltages in such parts of the circuit, read by using a microammeter in series with a 0.5-megohm, ½-watt resistor (whence the current in microamperes is equal to twice the voltage). One side of the microammeter is connected to the circuit point which has no oscillator or signal voltage on it, and the 0.5-megohm resistor is used as a probe for making the other connection. It is essential that there be not more than an inch or two of wire from the resistor to the point in the circuit to which it connects.

TABLE III

a. Radio Receiver Unit No. 1, Type CG-46115

(1) High-frequency oscillator grid-to-cathode test (terminal 5 to terminal 8, Socket X102)

CURRENT IN MICROAMPERES
(through ½ megohm)

	Low-frequency End	*High-frequency End*
Band No. 1	10	14
Band No. 2	12.5	17
Band No. 3	27	24.5
Band No. 4	11	17.5

(2) Beat oscillator grid-to-cathode test (terminal 2 to terminal 3, Socket X106): 10.5 microamperes through ½ megohm

(3) Main diode detector output test (across R165) with receiver on CW: 20 microamperes through ½ megohm

b. Radio Receiver Unit No. 2, Type CG-46116

(1) High-frequency oscillator grid-to-cathode test (terminal 5 to terminal 8, Socket X)

CURRENT IN MICROAMPERES
(through ½ megohm)

	Low-frequency End	*High-frequency End*
Band No. 1	11	11.5
Band No. 2	9.5	11.5
Band No. 3	9.5	12.5
Band No. 4	10	17

(2) Beat oscillator grid-to-cathode test (terminal 2 to terminal 3, Socket X208); 15 microamperes through ½ megohm

(3) Main diode detector output test (across R237) with radio receiver on CW: 18 microamperes through ½ megohm

c. Radio Receiver Unit No. 3, Type CG-46117

(1) High-frequency oscillator grid-to-cathode test (terminal 5 to terminal 8, Socket X302)

CURRENT IN MICROAMPERES
(through ½ megohm)

	Low-frequency End	*High-frequency End*
Band No. 1	7	9.5
Band No. 2	9	10.5
Band No. 3	9	9.8
Band No. 4	6.6	11.5
Band No. 5	7	9.3

(2) Beat oscillator grid-to-cathode test (terminal 2 to terminal 3, Socket X307): 8 microamperes through ½ megohm

(3) Main diode detector output test (across R334) with radio receiver on CW: 10 microamperes through ½ megohm.

4. Stage Sensitivities

Table IV gives the signal voltage required at each grid to produce 1.73 volts rms output into a 300-ohm load, the radio receiver being set on MCW, MAN, volume MAX. The signal used is a 400-cycle a-f signal; or an i-f signal modulated 30 per cent at 400 cycles; or an r-f signal modulated 30 per cent at 400 cycles, whichever applies. For the readings marked with a (*) the gain control is retarded to a point where the noise output when the modulation is removed from the signal is 0.86 volts.

TABLE IV

STAGE SENSITIVITIES

a. Radio Receiver Unit No. 1, Type CG-46115

Stage / Freq. Signal	A-f V105 Pin 5	I-f 2 V104 Pin 4	I-f 1 V103 Pin 4	Conv. V102 Cap	R-f V101 Pin 4	ANT.
400 cycles	0.72V	X	X	X	X	X
160 kc	X	0.067V	1450	100	X	X
210 kc	X	X	X	250	12.5	4.7*
290 kc	X	X	X	180	10.5	1.5*
320 kc	X	X	X	182	5.7	2.2*
480 kc	X	X	X	145	7.3	2.0*
530 kc	X	X	X	110	6.1	2.3*
850 kc	X	X	X	110	7.2	1.7*
950 kc	X	X	X	260	7.4	2.7*
1450 kc	X	X	X	155	6.8	1.7*

b. Radio Receiver Unit No. 2, Type CG-46116

MICROVOLTS

Stage / Freq. Signal	A-f V207 Pin 5	I-f 3 V206 Pin 4	I-f 2 V205 Pin 4	I-f 1 V204 Pin 4	Conv. V203 Cap	R-f 2 V202 Pin 4	R-f 1 V202 Pin 4	ANT.
400 cycles	0.72	X	X	X	X	X	X	X
915 kc	X	0.118V	6900	585	93	X	X	X
1.55 mc	X	X	X	X	130	29	10.5	5*
2.35 mc	X	X	X	X	130	27	9.8	2.7*
2.45 mc	X	X	X	X	135	100	15	3.5
3.7 mc	X	X	X	X	130	95	15	2.4
3.9 mc	X	X	X	X	150	80	18	3.7
5.9 mc	X	X	X	X	130	62	20	3.2
6.1 mc	X	X	X	X	140	40	18	2.9
8.8 mc	X	X	X	X	150	35	20	2.2

c. Radio Receiver Unit No. 3, Type CG-46117

Stage / Freq. Signal	A-f V306 Pin 5	I-f 3 V305 Pin 4	I-f 2 V304 Pin 4	I-f 1 V303 Pin 4	Conv. V302 Cap	R-f 2 V308 Pin 4	R-f 1 V301 Pin 4	ANT.
400 cycles	0.72V	X	X	X	X	X	X	X
2.275 mc	X	0.104V	5700	350	75	X	X	X
7.2 mc	X	X	X	X	100	25	7.5*	0.7*
9.8 mc	X	X	X	X	100	25	7.5*	0.7*
10.2 mc	X	X	X	X	100	17	4.3*	1.6*
12.8 mc	X	X	X	X	100	17	4.3*	1.6*
13.3 mc	X	X	X	X	80	22	6.0*	1.4*
17.2 mc	X	X	X	X	87	52	7.2*	2.4*
17.8 mc	X	X	X	X	80	14	5.5*	2*
22.2 mc	X	X	X	X	88	36	7.6	2.9*
22.8 mc	X	X	X	X	96	23	7.6*	1.9*
26.7 mc	X	X	X	X	88	19	6.5*	3.6*

5. Other Data

Drawing K-7883550 shows the base connections of the vacuum tubes used in this radio receiving equipment.

Drawings K-7883551 to K-7883577 inclusive, show other characteristics useful in checking performance and analyzing troubles.

6. Color Codes

In addition to the Part Numbers stamped on each component, all fixed resistors and mica capacitors are marked with the standard RMA color code. This code consists of three colors, the first signifying the first digit; the second, the second digit; and the third, the numbers of zeros between the second digit and the decimal point. Capacitance values are given in micromicrofarads, and resistances in ohms. The color code is given in Table V.

TABLE V

Resistor and Capacitor Color Code

Color	*Digit*
Black	0
Brown	1
Red	2
Orange	3
Yellow	4
Green	5
Blue	6
Violet	7
Gray	8
White	9

On capacitors, the colors are read from left to right when the capacitor is placed in such a position that the colored dots appear at the top.

On resistors, the colors appear as bands; they are read starting at the end of the resistor body and reading toward the center. Resistors carry an additional band of gold or silver paint, silver indicating 10 per cent tolerance; gold 5 per cent tolerance.

Examples:

A capacitor with a red dot, a black dot, and a brown dot: 200 mmf.

A capacitor with a brown dot and two black dots: 10 mmf.

A resistor with three red bands and a silver band: 2200 ohms 10 per cent tolerance.

A resistor with a brown band, a black band, a green band, and a gold band: 1 megohm (1,000,000 ohms), 5 per cent tolerance.

Some resistors are marked in accordance with a body-end-dot coloring system instead of the three bands; the colors are read in that order and the same color code applies.

7. Operating Difficulties and Possible Causes

The following general principle should be remembered and constantly followed in connection with this radio receiving equipment: WHEN LOOKING FOR TROUBLE IN A RADIO SET ALWAYS EXAMINE ALL THE SIMPLE CAUSES OF FAILURE FIRST. Whenever the radio receiving equipment fails to work properly, first determine in what unit the trouble lies by replacing the units *one at a time* with similar units known to be in good operating condition. This method of analysis, applied down to the individual cables will always locate the defective unit without ambiguity. The remedies suggested below should be applied to a unit only after this unit has been definitely shown to be defective by the method outlined above and removed from the receiver rack for testing alone.

a. Radio Receiver Operative but Noisy

Probably the most common cause of poor radio reception in all airplane installations of high sensitivity radio receivers is electrical "noise" of both local and atmospheric origin. Operators of the radio receiver should learn by experience to identify those "noises" in the telephone receivers which indicate faults in the apparatus or installation. Such identification by ear will greatly facilitate the correction of the fault. The following outline may be used as a guide.

(1) Atmospherics (static), external man-made interference should be identified on the ground, engine not running. Static will be heard at low frequencies at all seasons of the year and most times of day. The general static level grows progressively lower with increasing frequency. The radio receiver cannot be adequately tested or inspected in ground locations where power-line interference, motor interference, and the like are excessive. Disconnecting the antenna at the radio receiver binding post will generally give a satisfactory test, since, if the noise encountered is static or power-line interference, it will greatly diminish or disappear when the antenna is disconnected.

(2) Dynamotor noise should be identified on the ground, engine not running; usually related to the speed of the machine and can not be identified by switching the power on and off at the "MCW-OFF-CW" switch.

(3) Intermittent contact in phone cord, plug, or contacts to telephone receivers should be identified on ground, engine not running.

(4) Loose band or terminal plug on any radio receiver should be identified on ground, engine not running.

(5) Ignition noise should be identified on ground, engine running, by varying the speed of the engine and by switching from one magneto to the other.

(6) Generator noise should be identified on ground, engine running, by advancing the throttle to the point at which generator cut in. If it originates in the generator itself, it will be characteristic "machine noise"; if in the voltage regulator, it will probably be

intermittent and appear only above a certain critical engine speed (usually 800 to 1000 rpm). Noise originating in the generator or voltage regulator can be distinguished from ignition noise by the fact that generator and voltage regulator noise is usually suppressed by opening the airplane main line switch.

(7) Vacuum tube noise should be identified on ground, engine running; usually a crackling or ringing sound. It will sometimes appear under sustained vibration and never be heard at all when the radio receiver set box is jarred intermittently by hand.

(8) Intermittent contact in an internal circuit of the radio receiver may be identified with the engine running or by jarring the radio receiver by hand. Disconnecting the antenna and vibrating the radio receiver is not necessarily a test because noises of this character may be increased to audibility by a strong incoming signal.

With regard to (1) on page 36, it should be noted that it is not an uncommon occurrence for man-made interference to be received with destructive force when flying over certain areas, and to be of such nature that it is easily confused with generator or dynamotor noise on the airplane itself. If "machine" noises are suddenly heard in flight they may possibly be identified solely with a particular ground area. Also it should be remembered that when flying through mist, rain, or snow, a noise is sometimes heard which sounds like a machine noise; it is produced by the impact of the charged particles on the receiving antenna and airplane, and is irremediable.

With regard to (2) on page 36, the interruption of current in the commutators of the dynamotor machine sets up radio frequency oscillations in the connecting cables, which oscillations enter the radio receiver by way of the antenna (never through the conductors of the cables themselves; this fact may be verified by disconnecting the antenna at the radio receiver binding post). The transmission of the dynamotor noise to the radio receiver is related to the condition of bonding of the cables, particularly at high frequencies. A dirty commutator will produce more noise than a clean one, but complete suppression can never be obtained if the shielded cables are not thoroughly bonded and grounded. This fact should be remembered when making bench installations of the radio receiver for test purposes. When this noise occurs in an airplane installation the bonding of the cables to the airplane should be checked for poor contacts. If the noise persists, the commutators of the machine may be cleaned with a clean dry cloth while the machine is turning over. All grit and dust produced by this cleaning process must be carefully removed from brush holders and commutator. *Never use emery on a commutator.* A trace of oil or grease on a commutator may cause more trouble than a dirt deposit. The low-voltage commutator is more apt to produce noise than the high-voltage commutator. Under normal operating conditions the commutators of these enclosed machines should not require cleaning oftener than about every 500 hours. If the dynamotor is noisy or inefficient and the cause of the trouble cannot be located elsewhere the commutator may be cleaned as described above.

Trouble (3) mentioned on page 36, is a very common, but easily remedied cause of complete interruption of service, because of the severe wear to which these items are subjected.

With regard to (6) on page 37, generator and voltage regulator noise is frequently a more elusive fault than ignition interference. A temporary remedy, if the generator becomes noisy in the air, is to open its field while receiving, but this is not a cure, and should not be permanently tolerated. Complete shielding will not always cure voltage-regulator interference. For best results the voltage-regulator output should be electrically filtered. A method of doing this, which is effective in many installations, is to connect a condenser of ½ mfd capacity between the positive generator field terminal and ground, and a second condenser of ½ mfd between the positive 28-volt output terminal and ground. To be effective this must be done *at the generator* using the shortest possible leads. If the voltage regulator is misadjusted so that its armature vibrates continuously no amount of filtering will completely eliminate the resultant noise. The spring tension on the voltage regulator relay contacts should be so adjusted that they open and close without vibration as the generator passes through its operating speed range.

With regard to (7) on page 37, an intermittent contact inside a tube is sometimes the first indication that its useful life is over. Noises originating in the tubes are *greatly accentuated by the presence of a strong incoming radio signal,* particularly an unmodulated signal, and this may be used as a means of identifying such a noise. The faulty tube must be isolated by replacing the tubes one by one with new ones and observing when the disturbance vanishes.

If the trouble is due to (8) mentioned on page 37 the radio receiver must be dismounted and inspected internally for loose connections. The most likely location of a loose contact is in one of the band switch wafers. If this is the case, the trouble will probably appear on only one band, although if one of the common contacts is involved, all bands might be affected. If the trouble is confined to one band, the circuit may be isolated by connecting a signal generator first to the antenna, then to the first r-f amplifier tube grid, then to the second r-f amplifier tube grid, and then to the converter grid (top cap). Disappearance of the noise at any of these points will locate the loose contact in the preceding circuit. If the noise is worse with r-f signal applied to the converter grid than with i-f signal applied, the loose contact may be in the local oscillator circuit.

b. Receiver Dead, No Sounds

If the dynamotor does not run, check the fuse. If it is blown, replace it and before replacing the dynamotor, check the resistance to ground from terminal No. 2 of the dynamotor terminal board. It should exceed 30,000 ohms after the filter capacitors have charged, with the power off. If dynamotor runs, check chassis voltages, starting at output stage of radio receiver and working toward the antenna. If trouble is traced to a particular tube, test the tube and substitute a known good tube for it. A defective socket contact may cause a good tube to be inoperative in the set.

c. Strong Signals Overload Receiver on AVC and on MAN at High-volume Control Settings

This is an indication of inoperative AVC. If the recovery time is very long, after application of a strong signal, look for an open circuit in the AVC line or in a grid circuit. If the recovery appears to be practically instantaneous, a short circuit on the AVC line is indicated. Check grid-to-ground resistances.

d. Receiver Sensitivity Either Too High or Too Low on Some Bands

Check the chassis voltages, particularly cathode voltages. Defective contacts in the wafer which switches cathode resistors to maintain uniform band-to-band sensitivity (S105C, S203D, S305D, S306D) is indicated. For low sensitivity, check r-f and antenna circuit alignment.

e. Receiver Sensitivity Extremely Low on Any or All Bands

A defective band switch contact in an r-f circuit is indicated. If resetting the band switch sometimes returns the sensitivity to normal, this diagnosis is even more certain. To determine which circuit is at fault, test sensitivity at converter grid, second r-f amplifier grid, and first r-f amplifier grid. An open circuit in one of the switches may often be located by checking resistance from each stator section of the gang capacitor, to ground (on Radio Receiver Units No. 2 and No. 3) or to the AVC line (on Radio Receiver Unit No. 1). Reference to the schematic diagrams will show that on some bands the presence of a series padding capacitor will prevent this check from being carried out. In those cases it is necessary to remove the suspected coil box from the chassis for test.

f. Receiver Normal on MCW but Insensitive on CW

Check beat oscillator frequency; check beat oscillator strength as described in Section VI on Operation and Adjustments.

g. Receiver Oscillates on MCW

NOTE:

Oscillation on MCW may be identified by the appearance of a heteredoyne beat note, or by "motorboating" (intermittent blocking).

Replace all tubes. Check all nuts and screws on chassis and coil boxes, particularly those screws holding ground terminals.

Check chassis voltages and resistances. (Allowance must be made for some voltage changes due to the oscillation, when making this check.) These checks will locate a short-circuited filter or by-pass capacitor. To locate an open-circuited by-pass capacitor try shunting, in turn, each by-pass capacitor in the radio receiver with another capacitor of approximately the same capacitance.

Connect a microammeter and 0.5-megohm resistor across the diode load resistor (R165, R237, R334), with the radio receiver on MCW, no signal. If it is oscillating, there should be several volts across the diode load resistor. Ground in turn the antenna, the first r-f amplifier tube grid, the second r-f amplifier tube grid, etc. This may localize the trouble in a particular stage.

h. General

A general procedure, applicable to any symptoms of trouble is: first, check all chassis resistance; second, check all chassis voltages; third, check all stage sensitivities. In most cases the trouble will be localized before this routine is completed.

When it is necessary to remove any of the shields from the inside of a chassis, it is essential that they be replaced, and all screws fastened securely, using lockwashers, when the radio receiver unit is reassembled. Failure to do this may result in enormous increases in the amplitude of some of the spurious signals.

In removing r-f or oscillator coil boxes from the radio receiver units, the procedure should be as follows:

(1) Disconnect all wires on the base of the coil box.

(2) Remove dynamotor, then band switch shaft.

(3) Remove two screws from top of coil box shield.

(4) Remove two nuts from bottom of coil box shield.

(5) Remove four screws from bottom corners of coil box base.

(6) Holding soldering iron on stator terminal of gang capacitor, where lead joins from coil box, lift coil box from set.

When replacing the coil box, reverse the above procedure, being particularly careful when inserting the lead in the gang capacitor stator terminal not to bend it in such a way as to short-circuit to the capacitor frame.

When short-circuit trouble is indicated in a coil box, it is well to inspect the air trimmer capacitors in the box for metal particles between the plates.

LIST OF MAJOR UNITS

Navy Type Number	*Major Units*	*Symbol Group*
CG-46115	Receiver (200-1500 Kc)	101 to 199
	Receiver (1500-9000 Kc)	201 to 299
CG46116		1201 to 1299
CG-46117	Receiver (7000-27,000 Kc)	301 to 399
CG-46128	Receiver Rack	601 to 699
CG-62028	Junction Box	501 to 599
None	Cable M7465168P2 & 3	701 to 799

TABLE VI

PARTS LIST BY SYMBOL DESIGNATIONS
FOR
NAVY MODEL RAX-1 AIRCRAFT RADIO RECEIVING EQUIPMENT
RADIO RECEIVER 200-1500 KC, NAVY TYPE CG-46115

SYMBOL DESIGNATION	Δ	FUNCTION	DESCRIPTION	NAVY TYPE DESIG.	NAVY DWG. OR SPEC. NUMBER	₸	MFR.	MFR. DESIG.	CONTRACTOR'S DRAWING AND PART NUMBER
CAPACITORS									
C101	-	Not Used	-	-	-	-	-	-	-
C102	-	Band 4, Antenna Trimming Capacitor	Variable, 50 mmfd, terminal on left	-	-	-	2	Type APC (modified)	M-7464331-P2
C103	-	Band 3, Antenna Trimming Capacitor	Variable, 50 mmfd, terminal on right	-	-	-	2	Type APC (modified)	M-7464331-P9
C104	-	Band 2, Antenna Trimming Capacitor	Same as C102	-	-	-	-	-	-
C105	-	Band 1, Antenna Trimming Capacitor	Same as C103	-	-	-	-	-	-
*C106	-	Converter AVC Filter Capacitor	Paper, 0.05 mfd ±10%, 400 volts	-	RE 13A 488C	-	1	-	K-7876779-P4
*C107	-	R-f AVC Filter Capacitor	Paper, 0.01 mfd ±10%, 600 volts d-c working	-	RE 13A 488C	-	1	-	K-7876779-P1
*C108	-	Antenna Padding Capacitor	Mica, 0.00005 mfd ±10%, 500 volts d-c working	CD-48895-D10	RE 13A 389K	-	1	Cat. No. 5RS	M-7463969-P8
C109	-	Variable Tuning Gang Capacitor	Variable, 320.8 mmfd (approx) 3 sections	-	-	-	3	Model No. 3003	TT-7660270-G3
C109	A	Converter Tuning Capacitor	Included in C109	-	-	-	-	-	-
C109	B	R-f Tuning Capacitor	Included in C109	-	-	-	-	-	-
C109	C	R-f Oscillator Tuning Capacitor	Included in C109	-	-	-	-	-	-
*C110	-	Band 4, Antenna Coupling Capacitor	Mica, 0.00001 mfd ±10%, 500 volts d-c working	CD-48710-D10	RE 13A 389K	-	1	Cat. No. 5RS	M-7463969-P3
*C111	-	R-f Screen By-pass Capacitor	Mica, 0.006 mfd ±10%, 300 volts d-c working	CD-48847-B10	RE 48A 143E	-	1	Cat. No. 1WLS	P-7762455-P27
*C112	-	R-f Plate By-pass Capacitor	Same as C106	-	-	-	-	-	-
C113	-	Band 3, R-f Trimming Capacitor	Same as C103	-	-	-	-	-	-
C114	-	Band 2, R-f Trimming Capacitor	Same as C102	-	-	-	-	-	-
C115	-	Band 1, R-f Trimming Capacitor	Same as C103	-	-	-	-	-	-
C116	-	Band 4, R-f Trimming Capacitor	Same as C102	-	-	-	-	-	-
*C117	-	Band 4, Antenna Series Padding Capacitor	Mica, 2350 mmfd ±5%, 250 volts d-c working	-	-	-	4	Type "moulded silver cap"	K-7877485-P3
*C118	-	R-f Padding Capacitor	Same as C108	CD-48895-D10	-	-	-	-	-

Δ Symbol part designation, if any.
₸ Style or other applicable designation, if any.
* SPARE PARTS FURNISHED. Refer to Table III for quantities.

TABLE VI (CONT'D)

PARTS LIST BY SYMBOL DESIGNATIONS
FOR
NAVY MODEL RAX-1 AIRCRAFT RADIO RECEIVING EQUIPMENT
RADIO RECEIVER 200-1500 KC, NAVY TYPE CG-46115

SYMBOL DESIGNATION	Δ	FUNCTION	DESCRIPTION	NAVY TYPE DESIG.	NAVY DWG. OR SPEC. NUMBER	π	MFR.	MFR. DESIG.	CONTRACTOR'S DRAWING AND PART NUMBER
			CAPACITORS (CONT'D)						
*C119	-	Antenna Wave Trap Capacitor	Mica, 0.00007 mfd ±10%, 500 volts d-c working. (Included with Wave Trap Z101)	CD-48839-D10	RE 13A 389K	-	1	Cat. No. 5RS	M-7463969-P9
*C120	-	Band 1, R-f Padding Capacitor	Same as C119	CD-48839-D10	-	-	-	-	-
C121	-	R-f Wave Trap Capacitor	Same as C102. (Included with Wave Trap Z102)	-	-	-	-	-	-
*C122	-	Band 1, Antenna Coupling Capacitor	Mica, 0.00025 mfd ±10%, 500 volts d-c working	CD-48711-D10	RE 13A 389K	-	1	Cat. No. 5RS	M-7463969-P5
*C123	-	R-f Suppressor By-pass Capacitor	Same as C111	CD-48847-B10	-	-	-	-	-
*C124	-	Band 1, R-f Primary Loading Capacitor	Mica, 0.00015 mfd ±10%, 500 volts d-c working	CD-48689-D10	RE 13A 389K	-	1	Cat. No. 5RS	M-7463969-P11
*C125	-	R-f Cathode By-pass Capacitor	Same as C106	-	-	-	-	-	-
*C126	-	Band 1, Antenna Tuning Capacitor	Same as C108	CD-48895-D10	-	-	-	-	-
C127	-	Band 4, R-f Oscillator Trimming Capacitor	Same as C102	-	-	-	-	-	-
C128	-	Not Used	-	-	-	-	-	-	-
C129	-	Band 3, R-f Oscillator Trimming Capacitor	Same as C103	-	-	-	-	-	-
C130	-	Not Used	-	-	-	-	-	-	-
C131	-	Band 2, R-f Oscillator Trimming Capacitor	Same as C102	-	-	-	-	-	-
*C132	-	R-f Oscillator Temperature Compensating Capacitor	Ceramicon, 15 mmfd ±5%, 500 volts d-c working, temperature coefficient, 0.000680 mmf/mmf/deg C	-	-	-	5	Type N680K (modified)	K-7877141-P2
C133	-	Band 1, R-f Oscillator Trimming Capacitor	Same as C103	-	-	-	-	-	-
*C134	-	R-f Oscillator Plate Blocking Capacitor	Mica, 500 mmfd ±10%, 2500 volts d-c working	-	RE 13A 389K	-	4	Type "moulded silver cap"	K-7877485-P15
*C135	-	R-f Oscillator Padding Capacitor	Mica, 30 mmfd ±5%, 250 volts d-c working	-	RE 13A 389K	-	4	Type "moulded silver cap"	K-7877485-P20
*C136	-	R-f Oscillator Temperature Compensating Capacitor	Same as C132	-	-	-	-	-	-
C137	-	Not Used	-	-	-	-	-	-	-

Δ Symbol part designation, if any.
π Style or other applicable designation, if any.
* SPARE PARTS FURNISHED. Refer to Table III for quantities.

TABLE VI (CONT'D)

PARTS LIST BY SYMBOL DESIGNATIONS
FOR
NAVY MODEL RAX-1 AIRCRAFT RADIO RECEIVING EQUIPMENT
RADIO RECEIVER 200-1500 KC, NAVY TYPE CG-46115

SYMBOL DESIGNATION	Δ	FUNCTION	DESCRIPTION	NAVY TYPE DESIG.	NAVY DWG. OR SPEC. NUMBER	ᴛ	MFR.	MFR. DESIG.	CONTRACTOR'S DRAWING AND PART NUMBER
			CAPACITORS (CONT'D)						
*C138	-	Converter Cathode By-pass Capacitor	Same as C106	-	-	-	-	-	-
*C139	-	BFO Plate Blocking Capacitor	Same as C134	-	-	-	-	-	-
*C140	-	BFO Grid Blocking Capacitor	Mica, 50 mmfd ±5%, 250 volts d-c working	-	RE 13A 389K	-	4	Type "moulded silver cap"	K-7877485-P17
C141	-	BFO Trimmer Capacitor	Variable, 75 mmfd, terminal on left	-	-	-	2	Type "moulded silver cap"	M-7464331-~~P3~~ P13
*C142	-	BFO Tuning Capacitor	Mica, 730 mmfd ±0.9%, 250 volts d-c working	-	RE 13A 389K	-	4	Type "moulded silver cap"	K-7878485-P10
C143	-	Not Used		-	-	-	-	-	-
*C144	-	BFO Cathode By-pass Capacitor	Same as C106	-	-	-	-	-	-
*C145	-	Converter Screen By-pass Capacitor	Same as C106	-	-	-	-	-	-
*C146	-	R-f Oscillator Grid Blocking Capacitor	Same as C140	-	-	-	-	-	-
*C147	-	Band 1, R-f Oscillator Series Padding Capacitor	Mica, 600 mmfd ±5%, 250 volts d-c working	-	RE 13A 389K	-	4	Type "moulded silver cap"	K-7877485-P13
*C148	-	Band 3, R-f Oscillator Series Padding Capacitor	Mica, 1100 mmfd ±5%, 250 volts d-c working	-	RE 13A 389K	-	4	Type "moulded silver cap"	K-7877485-P9
*C149	-	Band 2, R-f Oscillator Series Padding Capacitor	Same as C147	-	-	-	-	-	-
*C150	-	Band 1, R-f Oscillator Padding Capacitor	Mica, 100 mmfd ±5%, 250 volts d-c working	-	RE 13A 389K	-	4	Type "moulded silver cap"	K-7877485-P37
*C151	-	Converter Plate Filter Capacitor	Same as C106	-	-	-	-	-	-
*C152	-	1st I-f Grid Tuning Capacitor	Mica, 375 mmfd ±5%, 250 volts d-c working	-	RE 13A 389K	-	4	Type "moulded silver cap"	K-7877485-P39
*C153	-	Converter Plate Tuning Capacitor	Same as C152	-	-	-	-	-	-
*C154	-	1st I-f AVC Filter Capacitor	Same as C111	CD-48847-B10	-	-	-	-	-
*C155	-	1st I-f Cathode By-pass Capacitor	Same as C111	CD-48847-B10	-	-	-	-	-
C156	-	Not Used	-	-	-	-	-	-	-

Δ Symbol part designation, if any.
ᴛ Style or other applicable designation, if any.
* SPARE PARTS FURNISHED. Refer to Table III for quantities.

TABLE VI (CONT'D)

PARTS LIST BY SYMBOL DESIGNATIONS
FOR
NAVY MODEL RAX-1 AIRCRAFT RADIO RECEIVING EQUIPMENT
RADIO RECEIVER 200-1500 KC, NAVY TYPE CG-46115

SYMBOL DESIGNATION	Δ	FUNCTION	DESCRIPTION	NAVY TYPE DESIG.	NAVY DWG. OR SPEC. NUMBER	▼	MFR.	MFR. DESIG.	CONTRACTOR'S DRAWING AND PART NUMBER
			CAPACITORS (CONT'D)						
*C157	-	AVC Filter Capacitor	Same as C107	-	-	-	-	-	-
C158	-	Not Used	-	-	-	-	-	-	-
*C159	-	1st I-f Screen By-pass Capacitor	Same as C111	CD-48847-B10	-	-	-	-	-
*C160	-	Power Supply Filter Capacitor	Electrolytic, 3-16 mfd +75%, -10%, 250 volts d-c. Three separate sections.	-	RE 13A 549A	-	1	-	K-7876911
C160	A	Power Supply Filter Capacitor	Included in C160	-	-	-	-	-	-
C160	B	Power Supply Filter Capacitor	Included in C160	-	-	-	-	-	-
C160	C	Power Supply Filter Capacitor	Included in C160	-	-	-	-	-	-
*C161	-	AVC Diode Blocking Capacitor	Same as C108	CD-48895-D10	-	-	-	-	-
*C162	-	2nd I-f Plate Tuning Capacitor	Same as C147	-	-	-	-	-	-
*C163	-	Audio Diode Tuning Capacitor	Mica, 650 mmfd ±5%, 250 volts d-c working	-	RE 13A 389K	-	4	Type "moulded silver cap"	K-7877485-P30
*C164	-	2nd I-f Plate Filter Capacitor	Same as C111	CD-48847-B10	-	-	-	-	-
*C165	-	1st I-f Plate Tuning Capacitor	Mica, 370 mmfd ±5%, 250 volts d-c working	-	RE 13A 389K	-	4	Type "moulded silver cap"	K-7877485-P40
*C166	-	2nd I-f Grid Tuning Capacitor	Mica, 900 mmfd ±5%, 250 volts d-c working	-	RE 13A 389K	-	4	Type "moulded silver cap"	K-7877485-P41
*C167	-	1st I-f Plate Filter Capacitor	Same as C111	CD-48847-B10	-	-	-	-	-
*C168	-	2nd I-f Screen By-pass Capacitor	Same as C111	CD-48847-B10	-	-	-	-	-
*C169	-	2nd I-f Cathode By-pass Capacitor	Same as C106	-	-	-	-	-	-
*C170	-	2nd I-f Grid Filter Capacitor	Same as C111	-	-	-	-	-	-
*C171	-	Audio Diode Filter Capacitor	Mica, 0.0004 mfd ±10%, 500 volts d-c working	CD-481015-D10	RE 13A 389K	-	1	Cat. No. 5RS	M-7463969-P15
*C172	-	Audio Diode Filter Capacitor	Mica, 0.0005 mfd ±10%, 500 volts d-c working	CD-48691-D10	RE 13A 389K	-	1	Cat. No. 5RS	M-7463969-P16
*C173	-	Audio Cathode Filter Capacitor	Paper, 0.5 mfd -3%, +10%, 600 volts d-c working	-	RE 13A 488C	-	1	Cat. No. DYR-6050	M-7464514-P4

Δ Symbol part designation, if any.
▼ Style or other applicable designation, if any.
* SPARE PARTS FURNISHED. Refer to Table III for quantities.

TABLE VI (CONT'D)

PARTS LIST BY SYMBOL DESIGNATIONS
FOR
NAVY MODEL RAX-1 AIRCRAFT RADIO RECEIVING EQUIPMENT
RADIO RECEIVER 200-1500 KC, NAVY TYPE CG-46115

SYMBOL DESIGNATION	Δ	FUNCTION	DESCRIPTION	NAVY TYPE DESIG.	NAVY DWG. OR SPEC. NUMBER	π	MFR.	MFR. DESIG.	CONTRACTOR'S DRAWING AND PART NUMBER
			CAPACITORS (CONT'D)						
C174	-	Not Used	-	-	-	-	-	-	-
C175	-	Not Used	-	-	-	-	-	-	-
*C176	-	Audio Grid Blocking Capacitor	Paper, 0.25 mfd -3%, +10%, 600 volts d-c working	-	RE 13A 488C	-	1	Cat. No. DYR-6025	M-7464514-P3
*C177	-	Audio Cathode By-pass Capacitor	Electrolytic, 50 mfd +100%, -10%, 25 volts	-	RE 13A 549A	-	1	-	K-7877210-P1
*C178	-	Audio Plate Filter Capacitor	Mica, 0.004 mfd ±10%, 300 volts d-c working	-	RE 13A 389K	-	1	Cat. No. 1WLS	P-7762455-P25
*C179	-	Power Supply Filter Capacitor	Same as C111	CD-48847-B10	-	-	-	-	-
*C180	-	Power Supply Filter Capacitor	Mica, 0.0025 mfd ±10%, 500 volts d-c working	-	RE 13A 389K	-	1	Cat. No. 1RS	M-7464527-P23
C181	-	Not Used	-	-	-	-	-	-	-
C182	-	Not Used	-	-	-	-	-	-	-
*C183	-	Power Input Filter Capacitor	Same as C180	-	-	-	-	-	-
*C184	-	Power Input Filter Capacitor	Electrolytic, 25 mfd +100%, -10%, 50 volts	-	RE 13A 549A	-	1	-	K-7877443
C185 to C190 Incl.	-	Not Used	-	-	-	-	-	-	-
*C191	-	Band 3, R-f Primary Loading Capacitor	Mica, 0.0001 mfd ±10%, 500 volts d-c working	CD-48674-D10	RE 13A 389K	-	1	Cat. No. 5RS	M-7463969-P10
*C192	-	Band 2, R-f Primary Loading Capacitor	Same as C191	CD-48674-D10	-	-	-	-	-
*C193	-	Band 4, R-f Series Padding Capacitor	Same as C117	-	-	-	-	-	-
C194	-	Antenna Wave Trap Trimming Capacitor	Same as C102. (Included with Wave Trap Z101)	-	-	-	-	-	-
*C195	-	Band 2, Antenna Padding Capacitor	Same as C122	CD-48711-D10	-	-	-	-	-
*C196	-	Band 2, R-f Padding Capacitor	Same as C122	CD-48711-D10	-	-	-	-	-
C197	-	Antenna Trimming Capacitor	Variable, 25 mmfd	-	-	-	2	APC Type B	P-7761345-P13
*C198	-	Band 1, R-f Coupling Capacitor	Same as C122	-	-	-	-	-	-
*C199	-	Band 1, Antenna Primary Loading Capacitor	Same as C124	CD-48689-D10	-	-	-	-	-

Δ Symbol part designations, if any.
π Style or other applicable designation, if any.
* SPARE PARTS FURNISHED. Refer to Table III for quantities.

TABLE VI (CONT'D)

PARTS LIST BY SYMBOL DESIGNATIONS
FOR
NAVY MODEL RAX-1 AIRCRAFT RADIO RECEIVING EQUIPMENT
RADIO RECEIVER 200-1500 KC, NAVY TYPE CG-46115

SYMBOL DESIGNATION	Δ	FUNCTION	DESCRIPTION	NAVY TYPE DESIG.	NAVY DWG. OR SPEC. NUMBER	▼	MFR.	MFR. DESIG.	CONTRACTOR'S DRAWING AND PART NUMBER
			DYNAMOTORS						
D101	-	Dynamotor	Input, 28 volts Output, 166 volts, 0.090 amp	-	-	-	6	-	K-7876461-P1
			FUSES						
*F101	-	Line Fuse	4 amp, 250 volts	-	-	-	7	-	K-7881566
			JACKS						
J101	-	Phone Jack	Single circuit, single contact	-	-	-	6	-	ML-7461865-G1
			R-F CHOKE COILS AND INDUCTORS						
L101	-	Not Used	-	-	-	-	-	-	-
L102	-	Not Used	-	-	-	-	-	-	-
*L103	-	Power Supply R-f Choke Coil	Coil, 2 microhenries ±5%, consists of (approx) 350 turns copper wire No. 28 AWG DSE Universal wound, 2 crosses per turn	-	-	-	4	-	K-7877090
*L104	-	Power Supply Reactor	0.5 henry, 0.082 amp d-c res.	-	-	-	4	-	K-7877075
*L105	-	Power Input R-f Choke Coil	Consists of 28 turns No. 14 AWG DCC double cotton covered copper wire. Seven layer Pyramid wound on a 3/8-in. diam No. 2008-B comp. form. Inductance: Approx 8.4 microhenries	-	-	-	4	-	K-7877089-P1
L106	-	Wave Trap Coil	Consists of 3 coils, one 625 turns, other 425 turns, copper wire, Universal wound on 3/8-in. compound coil form, 9.60 microhenries (approx).(Included in Wave Trap Z102)	-	-	-	4	-	-
L107	-	Wave Trap Coil	Consists of 2 coils, one 625 turns, other 425 turns, copper wire, Universal wound on 3/8-in. compound coil form, 9.60 microhenries (approx). (Included in Wave Trap Z101)	-	-	-	4	-	-
*L108	-	Power Input R-f Choke Coil	Consists of 50 turns, copper wire, 0.025-in. bare, 0.033-in. DCC Universal wound, 2 crosses per turn on 1/2-in. Isolantite coil form	-	-	-	6	-	ML-7464808-G1

Δ Symbol part designation, if any.
▼ Style or other applicable designation, if any.
* **SPARE PARTS FURNISHED.** Refer to Table III for quantities.

TABLE VI (CONT'D)

PARTS LIST BY SYMBOL DESIGNATIONS
FOR
NAVY MODEL RAX-1 AIRCRAFT RADIO RECEIVING EQUIPMENT
RADIO RECEIVER 200-1500 KC, NAVY TYPE CG-46115

SYMBOL DESIGNATION	Δ	FUNCTION	DESCRIPTION	NAVY TYPE DESIG.	NAVY DWG. OR SPEC. NUMBER	π	MFR.	MFR. DESIG.	CONTRACTOR'S DRAWING AND PART NUMBER
			R-F CHOKE COILS AND INDUCTORS (CONT'D)						
*L109	-	Audio Filter Reactor	Tested at 0.0075 amp d-c, 60 cycles, 2.48 henries, ±10%	-	-	-	6	Cat. No. 67G794	K-7879066
			PLUGS						
P101	-	Power Plug	4 contacts	-	-	-	12	Cat. No. CK-C4-32S Var. No. 1 (modified)	K-7876934-P1
			RESISTORS AND RHEOSTATS						
R101	-	Not Used	-	-	-	-	-	-	-
*R102	-	R-f Grid AVC Filter Resistor	Composition, 100,000 ohms ±10%, 1/2 watt	CBZ-63360	RE 13A 372G	-	8	Type EB	P-7763599-P86
*R103	-	Converter Grid Bias Resistor	Composition, 1.0 megohm ±10%, 1/2 watt	CBZ-63360	RE 13A 372G	-	8	Type EB	P-7763599-P98
R104	-	Not Used	-	-	-	-	-	-	-
*R105	-	R-f Plate Filter Resistor	Composition, 750 ohms ±5%, 1/2 watt	CBZ-63355	RE 13A 372G	-	8	Type EB	P-7763599-P156
*R106	-	R-f Suppressor Resistor	Composition, 22,000 ohms ±10%, 1/2 watt	CBZ-63360	RE 13A 372G	-	8	Type EB	P-7763599-P78
*R107	-	Band 4, Antenna AVC Filter Resistor	Composition, 12,000 ohms ±10%, 1/2 watt	CBZ-63360	RE 13A 372G	-	8	Type EB	P-7763599-P75
*R108	-	Band 4, R-f Grid Return Resistor	Same as R107	CBZ-63360	-	-	-	-	-
*R109	-	R-f Gain Equalizing Resistor	Composition, 1000 ohms ±10%, 1/2 watt	CBZ-63360	RE 13A 372G	-	8	Type EB	P-7763599-P62
*R110	-	Band 4, R-f Gain Equalizing Potentiometer	Total resistance, 5000 ohms ±15%, from terminals 2 to 4	-	-	-	8	Bradleyometer Type J	M-7464322-P1
*R111	-	R-f Gain Equalizing Resistor	Composition, 1200 ohms ±10%, 1/2 watt	CBZ-63360	RE 13A 372G	-	8	Type EB	P-7763599-P63
R112 to R125 Incl.	-	Not Used	-	-	-	-	-	-	-
*R126	-	BFO Cathode Resistor	Composition, 10,000 ohms ±5%, 1/2 watt	CBZ-63355	RE 13A 372G	-	8	Type EB	P-7763599-P183
*R127	-	BFO Plate Resistor	Composition, 330,000 ohms ±5%, 1/2 watt	CBZ-63355	RE 13A 372G	-	8	Type EB	P-7763599-P219
*R128	-	AVC Diode Delay Resistor	Composition, 68,000 ohms ±5%, 1/2 watt	CBZ-63355	RE 13A 372G	-	8	Type EB	P-7763599-P203

Δ Symbol part designation, if any.
π Style or other applicable designation, if any.
* SPARE PARTS FURNISHED. Refer to Table III for quantities.

TABLE VI (CONT'D)

PARTS LIST BY SYMBOL DESIGNATIONS
FOR
NAVY MODEL RAX-1 AIRCRAFT RADIO RECEIVING EQUIPMENT
RADIO RECEIVER 200-1500 KC, NAVY TYPE CG-46115

SYMBOL DESIGNATION	Δ	FUNCTION	DESCRIPTION	NAVY TYPE DESIG.	NAVY DWG. OR SPEC. NUMBER	▼	MFR.	MFR. DESIG.	CONTRACTOR'S DRAWING AND PART NUMBER
			RESISTORS AND RHEOSTATS (CONT'D)						
*R129	-	BFO Grid Resistor	Composition, 220,000 ohms ±10%, 1/2 watt	CBZ-63360	RE 13A 372G	-	8	Type EB	P-7763599-P90
*R130	-	Converter Cathode Resistor	Composition, 390 ohms ±10%, 1/2 watt	CBZ-63360	RE 13A 372G	-	8	Type EB	P-7763599-P57
*R131	-	R-f Oscillator Plate Resistor	Composition, 62,000 ohms ±5%, 1/2 watt	CBZ-63355	RE 13A 372G	-	8	Type EB	P-7763599-P202
*R132	-	Converter Screen Resistor	Same as R107	CBZ-63360	-	-	-	-	-
*R133	-	R-f Oscillator Grid Resistor	Composition, 150,000 ohms ±10%, 1/2 watt	CBZ-63360	RE 13A 372G	-	8	Type EB	P-7763599-P88
*R134	-	AVC Diode Delay Resistor	Same as R102	CBZ-63360	-	-	-	-	-
R135 to R150 Incl.	-	Not Used	-	-	-	-	-	-	-
*R151	-	Converter Plate Filter Resistor	Same as R105	CBZ-63355	-	-	-	-	-
*R152	-	Volume Control Gang Potentiometer	2 rheostats mounted in tandem, consists of R152A and R152B	-	-	-	8	Bradleyometer Type JJ	M-7464321-P1
R152	A	MVC Potentiometer	20,000 ohms ±10%. Included in R152	-	-	-	-	-	-
R152	B	AVC Potentiometer	800,000 ohms ±10%. Included in R152	-	-	-	-	-	-
R153	-	Not Used	-	-	-	-	-	-	-
*R154	-	R-f Cathode Bias Resistor	Composition, 68,000 ohms ±5%, 1 watt	CBZ-63291	RE 13A 372G	-	8	Type GB	P-7763600-P203
*R155	-	AVC Filter Resistor	Same as R103	CBZ-63360	-	-	-	-	-
R156	-	Not Used	-	-	-	-	-	-	-
*R157	-	Screen Supply Bleeder Resistor	Composition, 15,000 ohms ±10%, 1 watt	CBZ-63288	RE 13A 372G	-	8	Type GB	P-7763600-P76
*R158	-	1st I-f Cathode Resistor	Same as R109	CBZ-63360	-	-	-	-	-
*R159	-	AVC Diode Load Resistor	Composition, 470,000 ohms ±10%, 1/2 watt	CBZ-63360	RE 13A 372G	-	8	Type EB	P-7763599-P94
*R160	-	1st I-f Plate Filter Resistor	Same as R105	CBZ-63355	-	-	-	-	-
*R161	-	2nd I-f Screen Resistor	Composition, 39,000 ohms ±10%, 1/2 watt	CBZ-63355	RE 13A 372G	-	8	Type EB	P-7763599-P81
*R162	-	2nd I-f Grid Filter Resistor	Composition, 1.5 megohm ±10%, 1/2 watt	CBZ-63360	RE 13A 372G	-	8	Type EB	P-7763599-P100
*R163	-	2nd I-f Plate Filter Resistor	Same as R105	CBZ-63355	-	-	-	-	-
*R164	-	Audio Diode Filter Resistor	Composition, 47,000 ohms ±10%, 1/2 watt	CBZ-63360	RE 13A 372G	-	8	Type EB	P-7763599-P82

Δ Symbol part designation, if any.
▼ Style or other applicable designation, if any.
* SPARE PARTS FURNISHED. Refer to Table III for quantities.

TABLE VI (CONT'D)

PARTS LIST BY SYMBOL DESIGNATIONS
FOR
NAVY MODEL RAX-1 AIRCRAFT RADIO RECEIVING EQUIPMENT
RADIO RECEIVER 200-1500 KC, NAVY TYPE CG-46115

SYMBOL DESIGNATION	Δ	FUNCTION	DESCRIPTION	NAVY TYPE DESIG.	NAVY DWG. OR SPEC. NUMBER	₸	MFR.	MFR. DESIG.	CONTRACTOR'S DRAWING AND PART NUMBER
			RESISTORS AND RHEOSTATS (CONT'D)						
*R165	-	Audio Diode Load Resistor	Composition, 330,000 ohms ±10%, 1/2 watt	CBZ-63360	RE 13A 372G	-	8	Type EB	P-7763599-P92
*R166	-	Screen Supply Bleeder Resistor	Composition, 30,000 ohms ±5%, 1 watt	CBZ-63291	RE 13A 372G	-	8	Type EB	P-7763600-P194
*R167	-	1st I-f Grid Filter Resistor	Same as R103	CBZ-63360	-	-	-	-	-
*R168	-	Converter Cathode Resistor	Composition, 510 ohms ±5%, 1/2 watt	CBZ-63355	RE 13A 372G	-	8	Type EB	P-7763599-P152
*R169	-	2nd I-f Cathode Resistor	Composition, 330 ohms ±10%, 1/2 watt	CBZ-63360	RE 13A 372G	-	8	Type EB	P-7763599-P56
*R170	-	Audio Diode Filter Resistor	Same as R164	CBZ-63360	-	-	-	-	-
R171 to R176 Incl.	-	Not Used	-	-	-	-	-	-	-
*R177	-	Audio Cathode Resistor	Composition, 390 ohms ±5%, 1 watt	CBZ-63291	RE 13A 372G	-	8	Type GB	P-7763600-P149
*R178	-	Audio Cathode Filter Resistor	Same as R168	CBZ-63355	-	-	-	-	-
			SWITCHES						
S101	-	Antenna Band Switch	Rotary tap switch, 4-position, 3-bank	-	-	-	9	Type RMC	M-7464376-P3
S101	A	Antenna Band Switch	Included in S101	-	-	-	-	-	-
S101	B	Antenna Band Switch	Included in S101	-	-	-	-	-	-
S101	C	Antenna Band Switch	Included in S101	-	-	-	-	-	-
S102	-	AVC - MVC Switch	Rotary tap switch, 2-position, 3-bank	-	-	-	9	Type RMC	M-7464292-P2
S102	A	AVC - MVC Switch	Included in S102	-	-	-	-	-	-
S102	C	AVC - MVC Switch	Included in S102	-	-	-	-	-	-
S102	D	AVC - MVC Switch	Included in S102	-	-	-	-	-	-
S103	-	CW-Off-MCW Switch	Rotary tap switch, 3-position, 2-bank	-	-	-	9	Type RMC	M-7464292-P1
S103	A	CW-Off-MCW Switch	Included in S103	-	-	-	-	-	-
S103	B	CW-Off-MCW Switch	Included in S103	-	-	-	-	-	-
S104	-	Not Used	-	-	-	-	-	-	-
S104	-	R-f Band Switch	Rotary tap switch, 4-position, 4-bank	-	-	-	9	Type RMC	M-7464376-P3
S105	A	R-f Band Switch	Included in S105	-	-	-	-	-	-
S105	B	R-f Band Switch	Included in S105	-	-	-	-	-	-

Δ Symbol part designation, if any.
₸ Style or other applicable designation, if any.
* SPARE PARTS FURNISHED. Refer to Table III for quantities.

TABLE VI (CONT'D)

PARTS LIST BY SYMBOL DESIGNATIONS
FOR
NAVY MODEL RAX-1 AIRCRAFT RADIO RECEIVING EQUIPMENT
RADIO RECEIVER 200-1500 KC, NAVY TYPE CG-46115

SYMBOL DESIGNATION	Δ	FUNCTION	DESCRIPTION	NAVY TYPE DESIG.	NAVY DWG. OR SPEC. NUMBER	π	MFR.	MFR. DESIG.	CONTRACTOR'S DRAWING AND PART NUMBER
			SWITCHES (CONT'D)						
S105	C	R-f Band Switch	Included in S105	-	-	-	-	-	-
S105	D	R-f Band Switch	Included in S105	-	-	-	-	-	-
S106	-	R-f Oscillator Band Switch *	Rotary tap switch, 4-position, 4-bank	-	-	-	9	Type RMC	M-7464376-P1
S106	A	R-f Oscillator Band Switch	Included in S106	-	-	-	-	-	-
S106	B	R-f Oscillator Band Switch	Included in S106	-	-	-	-	-	-
S106	C	R-f Oscillator Band Switch	Included in S106	-	-	-	-	-	-
S106	D	R-f Oscillator Band Switch	Included in S106	-	-	-	-	-	-
			TRANSFORMERS						
T101	-	Band 1, Antenna Transformer	Primary, 1507 1/2 turns ES wire, Universal wound, 53.18 millihenries (approx) Secondary, 352 1/2 turns 7/41 ES Litz wire, Prog. Universal wound, 1385 microhenries (approx). Mutual inductance 1745 microhenries (approx)	-	-	-	4	-	K-7877350-P1
T102	-	Band 2, Antenna Transformer	Primary, 406 1/2 turns ES wire, Universal wound, 5.095 millihenries (approx) Secondary, 265 1/2 turns, 7/41 ES Litz wire, Prog. Universal wound, 840.5 microhenries (approx). Mutual inductance 553.8 microhenries (approx)	-	-	-	4	-	K-7877351-P1
T103	-	Band 3, Antenna Transformer	Primary, 310 1/2 turns ES wire, Universal wound, 3.063 millihenries (approx) Secondary: 110 1/2 turns per section, 30/44 ES Litz wire, Universal wound, 292.5 microhenries (approx). Mutual inductance 331.4 microhenries.	-	-	-	4	-	K-7877352-P1

Δ Symbol part designation, if any.
π Style or other applicable designation, if any.
* SPARE PARTS FURNISHED. Refer to Table III for quantities.

TABLE VI (CONT'D)

PARTS LIST BY SYMBOL DESIGNATIONS
FOR
NAVY MODEL RAX-1 AIRCRAFT RADIO RECEIVING EQUIPMENT
RADIO RECEIVER 200-1500 KC, NAVY TYPE CG-46115

SYMBOL DESIGNATION	Δ	FUNCTION	DESCRIPTION	NAVY TYPE DESIG.	NAVY DWG. OR SPEC. NUMBER	π	MFR.	MFR. DESIG.	CONTRACTOR'S DRAWING AND PART NUMBER
			TRANSFORMERS (CONT'D)						
T104	-	Band 4, Antenna Transformer	Primary, 194 1/2 turns ES wire, Universal wound, 1.390 millihenries (approx) Secondary, 71 1/2 turns, 30/44 ES Litz wire, Prog. Universal wound, 87.6 microhenries (approx). Mutual inductance 26.7 microhenries	-	-	-	4	-	K-7877353-P1
T105		Band 1, R-f Transformer	Primary, 1507 1/2 turns ES wire, Universal wound, 53.38 millihenries (approx) Secondary, 352 1/2 turns, 7/41 ES Litz wire, Prog. Universal wound, 131.8 microhenries (approx). Mutual inductance 1660 microhenries (approx)	-	-	-	4	-	K-7877354-P1
T106	-	Band 2, R-f Transformer	Primary, 406 1/2 turns ES wire, Universal wound, 5.093 millihenries (approx) Secondary, 259 1/2 turns, 7/41 ES Litz wire, Prog. Universal wound, 775.1 microhenries (approx). Mutual inductance 534.9 microhenries (approx)	-	-	-	4	-	K-7877355-P1
T107	-	Band 3, R-f Transformer	Primary, 310 1/2 turns ES wire, Universal wound, 3.052 millihenries (approx) Secondary, 111 1/2 turns per section, 30/44 ES Litz wire, Universal wound 299.3 microhenries. Mutual inductance 342.9 microhenries.	-	-	-	4	-	* K-7877356-P1
T108	-	Band 4, R-f Transformer	Primary, 82 1/2 turns ES wire, Universal wound, 0.2187 millihenries (approx) Secondary, 72 1/2 turns, 30/44 ES Litz wire, Prog. Universal wound, 87.7 microhenries (approx). Mutual inductance 23.0 microhenries (approx)	-	-	-	4	-	K-7877357-P1

Δ Symbol part designation, if any.
π Style or other applicable designation, if any.
* SPARE PARTS FURNISHED. Refer to Table III for quantities.

TABLE VI (CONT'D)

PARTS LIST BY SYMBOL DESIGNATIONS
FOR
NAVY MODEL RAX-1 AIRCRAFT RADIO RECEIVING EQUIPMENT
RADIO RECEIVER 200-1500 KC, NAVY TYPE CG-46115

SYMBOL DESIGNATION	Δ	FUNCTION	DESCRIPTION	NAVY TYPE DESIG.	NAVY DWG. OR SPEC. NUMBER	π	MFR.	MFR. DESIG.	CONTRACTOR'S DRAWING AND PART NUMBER
			TRANSFORMERS (CONT'D)						
T109	-	1st I-f Transformer	Primary, 420 turns (approx) ES wire, Universal wound, 1.715 millihenries (approx) Secondary, 420 turns (approx) ES wire, Universal wound, 1.715 millihenries (approx). Mutual inductance 42.0 microhenries	-	-	-	4	-	K-7763100-G1
T110	-	Band 1, Oscillator Transformer	Primary, 61 1/2 turns E wire, 0.1192 millihenries (approx) Secondary, 126 turns per section, E wire, 767.7 microhenries (approx). Mutual inductance 123.2 microhenries (approx)	-	-	-	4	-	K-7877358-P1
T111	-	Band 2, Oscillator Transformer	Primary, 61 1/2 turns E wire, 0.1192 millihenries (approx) Secondary, 94 turns per section, E wire, 513.4 microhenries (approx). Mutual inductance 105.8 microhenries (approx)	-	-	-	4	-	K-7877359-P1
T112	-	Band 3, Oscillator Transformer	Primary, 41 1/2 turns E wire, 0.0433 millihenries (approx) Secondary, 67 3/4 turns per section E wire, 192.6 microhenries. Mutual inductance 36.8 microhenries	-	-	-	4	-	K-7877360-P1
T113	-	Band 4, Oscillator Transformer	Primary, 59 1/2 turns E wire, 0.0604 millihenries (approx) Secondary, 48 1/4 turns E wire Secondary, 64 1/4 turns E wire, 113.9 microhenries (approx). Mutual inductance 26.5 microhenries (approx)	-	-	-	4	-	K-7877361-P1
T114	-	BFO - 2nd I-f Transformer	BFO, 219 turns (approx), ES wire, Universal wound, 5.7 millihenries Primary, 394 turns (approx) ES wire, Universal wound, 1.969 millihenries Secondary, 232 turns ES wire, 646.7 microhenries. Mutual inductance 21.0 microhenries (approx)	-	-	-	4	-	T-7661130-G1
T115	-	Not Used	-	-	-	-	-	-	-

Δ Symbol part designation, if any
π Style or other applicable designation, if any.
* SPARE PARTS FURNISHED. Refer to Table III for quantities.

TABLE VI (CONT'D)

PARTS LIST BY SYMBOL DESIGNATIONS
FOR
NAVY MODEL RAX-1 AIRCRAFT RADIO RECEIVING EQUIPMENT
RADIO RECEIVER 200-1500 KC, NAVY TYPE CG-46115

SYMBOL DESIGNATION	Δ	FUNCTION	DESCRIPTION	NAVY TYPE DESIG.	NAVY DWG. OR SPEC. NUMBER	π	MFR.	MFR. DESIG.	CONTRACTOR'S DRAWING AND PART NUMBER
			TRANSFORMERS (CONT'D)						
T116	-	3rd I-f Transformer	Primary, 278 turns (approx) ES wire, Universal wound, 1.08 millihenries Secondary, 278 turns (approx) ES wire, Universal wound, 1.08 millihenries. Mutual inductance 20.0 microhenries (approx)	-	-	-	4	-	K-7763102-G1
*T117	-	Output Transformer	Turns ratio $\frac{NP}{NS}$ = 5.1 - 60 cycles to 3000 cycles. Primary D.C. - .013 amp	-	-	-	6	Cat. No. 67G919	K-7877947
			VACUUM TUBES						
*V101	-	R-f Amplifier Tube	Triple - grid supercontrol amplifier	CRC-12SK7	RE 13A 600D	-	10	RCA Type 12SK7	-
*V102	-	Converter Tube	Triode-hexode converter	CRC-12SK8	RE 13A 600D	-	10	RCA Type 12K8	-
*V103	-	1st I-f Amplifier Tube	Same as V101	CRC-12SK7	-	-	-	-	-
*V104	-	2nd I-f Amplifier Tube	Same as V101	CRC-12SK7	-	-	-	-	-
*V105	-	Audio Amplifier Tube	Beam power amplifier, small wafer octal, 7-pin	CRC-12A6	RE 13A 600D	-	10	RCA Type 12A6	-
*V106	-	BFO 2nd Detector Tube	Duplex-diode triode, small wafer octal, 8-pin	CRC-12SR7	RE 13A 600D	-	10	RCA Type 12SR7	-
*V107	-	Input Voltage Limiter Tube	Neon lamp	-	-	-	6	Cat. No. CD-1010-CL	-
			VACUUM TUBE SOCKETS						
X101	-	R-f Tube Socket	Ceramic, 8-pin	CPH-49373	-	-	11	Amphenol, Type SS-8 (modified)	K-7874006-P1
X102	-	Converter Tube Socket	Same as X101	CPH-49373	-	-	-	-	-
X103	-	1st I-f Tube Socket	Same as X101	CPH-49373	-	-	-	-	-
X104	-	2nd I-f Tube Socket	Same as X101	CPH-49373	-	-	-	-	-
X105	-	Audio Tube Socket	Same as X101	CPH-49373	-	-	-	-	-
X106	-	BFO 2nd Detector Tube Socket	Same as X101	CPH-49373	-	-	-	-	-
			WAVE TRAPS						
Z101	-	Wave Trap	Consists of capacitors, C119, C194 and coil, L107 enclosed in aluminum can, 1 1/4-in. sq by 2 3/4 in.	-	-	-	4	-	P-7763184-G1
Z102	-	Wave Trap	Consists of capacitor, C121 and coil, L106 enclosed in aluminum can, 1 1/4 in. sq by 2 3/4 in.	-	-	-	4	-	P-7763185-G1

Δ Symbol part designation, if any.
π Style or other applicable designation, if any
* SPARE PARTS FURNISHED. Refer to Table III for quantities.

TABLE VI (CONT'D)

PARTS LIST BY SYMBOL DESIGNATIONS
FOR
NAVY MODEL RAX-1 AIRCRAFT RADIO RECEIVING EQUIPMENT
RADIO RECEIVER 1500-9000 KC, NAVY TYPE CG-46116

SYMBOL DESIGNATION	Δ	FUNCTION	DESCRIPTION	NAVY TYPE DESIG.	NAVY DWG. OR SPEC. NUMBER	π	MFR.	MFR. DESIG.	CONTRACTOR'S DRAWING AND PART NUMBER
			CAPACITORS						
*C201	-	Primary Ground Capacitor	Same as C108	CD-48895-D10	-	-	-	-	-
C202	-	Band 1, Antenna Trimming Capacitor	Same as C102	-	-	-	-	-	-
C203	-	Band 2, Antenna Trimming Capacitor	Same as C103	-	-	-	-	-	-
C204	-	Band 3, Antenna Trimming Capacitor	Same as C102	-	-	-	-	-	-
*C205	-	1st R-f Grid Blocking Capacitor	Same as C191	CD-48674-D10	-	-	-	-	-
C206	-	Band 4, Antenna Trimming Capacitor	Same as C103	-	-	-	-	-	-
*C207	-	Antenna Padding Capacitor	Same as C122	CD-48711-D10	-	-	-	-	-
C208	-	Variable Tuning Gang Capacitor	Variable, 209.9 mmf (approx) 4 sections	-	-	-	3	Model 3004	TT-7660270-G2
C208	A	Variable Tuning Gang Capacitor	Included in C208	-	-	-	-	-	-
C208	B	Variable Tuning Gang Capacitor	Included in C208	-	-	-	-	-	-
C208	C	Variable Tuning Gang Capacitor	Included in C208	-	-	-	-	-	-
C208	D	Variable Tuning Gang Capacitor	Included in C208	-	-	-	-	-	-
C209	-	Antenna Trimming Capacitor	Variable, 31 mmfd	-	-	-	2	APC Type B	P-7761345-P14
*C210	-	Converter Plate Filter Capacitor	Same as C111	CD-48847-B10	-	-	-	-	-
*C211	-	1st R-f Screen By-pass Capacitor	Same as C111	CD-48847-B10	-	-	-	-	-
*C212	-	1st R-f Plate Filter Capacitor	Same as C111	CD-48847-B10	-	-	-	-	-
C213	-	Band 1, 1st R-f Trimming Capacitor	Same as C102	-	-	-	-	-	-
C214	-	Band 2, 1st R-f Trimming Capacitor	Same as C103	-	-	-	-	-	-
C215	-	Band 3, 1st R-f Trimming Capacitor	Same as C102	-	-	-	-	-	-
C216	-	Band 4, 1st R-f Trimming Capacitor	Same as C103	-	-	-	-	-	-
*C217	-	1st R-f Padding Capacitor	Same as C108	CD-48895-D10	-	-	-	-	-
*C218	-	Audio Cathode Filter Capacitor	Mica, 9500 mmfd ±2.5%, 300 volts d-c working	-	RE 13A 389K	-	1	Cat. No. 1WLS	M-7464874-P1

Δ Symbol part designation, if any.
π Style or other applicable designation, if any.
* SPARE PARTS FURNISHED. Refer to Table III for quantities.

TABLE VI (CONT'D)

PARTS LIST BY SYMBOL DESIGNATIONS
FOR
NAVY MODEL RAX-1 AIRCRAFT RADIO RECEIVING EQUIPMENT
RADIO RECEIVER 1500-9000 KC, NAVY TYPE CG-46116

SYMBOL DESIGNATION	Δ	FUNCTION	DESCRIPTION	NAVY TYPE DESIG.	NAVY DWG. OR SPEC. NUMBER	π	MFR.	MFR. DESIG.	CONTRACTOR'S DRAWING AND PART NUMBER
			CAPACITORS (CONT'D)						
*C219	-	2nd R-f Grid Blocking Capacitor	Same as C191	CD-48674-D10	-	-	-	-	-
*C220	-	2nd R-f Cathode By-pass Capacitor	Mica, 0.01 mfd ±10%, 300 volts d-c working	CD-48848-B10	RE 48AA 143D	-	1	Cat. No. 1WLS	P-7762455-P31
*C221	-	AVC Filter Capacitor	Same as C220	CD-48848-B10	-	-	-	-	-
*C222	-	Audio Cathode By-pass Capacitor	Same as C177	-	-	-	-	-	-
C223	-	Band 1, 2nd R-f Trimming Capacitor	Same as C102	-	-	-	-	-	-
C224	-	Band 2, 2nd R-f Trimming Capacitor	Same as C103	-	-	-	-	-	-
C225	-	Band 3, 2nd R-f Trimming Capacitor	Same as C102	-	-	-	-	-	-
C226	-	Band 4, 2nd R-f Trimming Capacitor	Same as C103	-	-	-	-	-	-
*C227	-	2nd R-f Padding Capacitor	Same as C108	CD-48895-D10	-	-	-	-	-
*C228	-	Power Input Filter Capacitor	Same as C220	CD-48848-B10	-	-	-	-	-
*C229	-	Converter Grid Blocking Capacitor	Same as C191	CD-48674-D10	-	-	-	-	-
*C230	-	2nd R-f Plate Filter Capacitor	Same as C111	CD-48847-B10	-	-	-	-	-
*C231	-	Converter Cathode By-pass Capacitor	Same as C220	CD-48848-B10	-	-	-	-	-
*C232	-	Converter Screen By-pass Capacitor	Same as C111	CD-48847-B10	-	-	-	-	-
*C233	-	R-f Oscillator Grid Capacitor	Same as C140	-	-	-	-	-	-
*C234	-	Oscillator Plate Blocking Capacitor	Same as C172	CD-48691-D10	-	-	-	-	-
*C235	-	Converter Plate Tuning Capacitor	Mica, 500 mmfd ±5%, 250 volts d-c working	-	RE 13A 389K	-	4	Type "moulded silver cap"	K-7887485-P38
*C236	-	1st I-f Grid Tuning Capacitor	Same as C235	-	-	-	-	-	-
*C237	-	1st I-f Plate Filter Capacitor	Same as C111	CD-48847-B10	-	-	-	-	-
*C238	-	R-f Oscillator Compensating Capacitor	Ceramicon, 25 mmfd ±5%, 500 volts d-c working temperature coefficient 0.000680 mmf/mmf/deg C	-	-	-	5	Type N680K (modified)	K-7877141-P3

Δ Symbol part designation, if any.
π Style or other applicable designation, if any.
* SPARE PARTS FURNISHED. Refer to Table III for quantities.

TABLE VI (CONT'D)

PARTS LIST BY SYMBOL DESIGNATIONS
FOR
NAVY MODEL RAX-1 AIRCRAFT RADIO RECEIVING EQUIPMENT
RADIO RECEIVER 1500-9000 KC, NAVY TYPE CG-46116

SYMBOL DESIGNATION	Δ	FUNCTION	DESCRIPTION	NAVY TYPE DESIG.	NAVY DWG. OR SPEC. NUMBER	╥	MFR.	MFR. DESIG.	CONTRACTOR'S DRAWING AND PART NUMBER
CAPACITORS (CONT'D)									
C239	-	Band 1, Oscillator Trimming Capacitor	Same as C103	-	-	-	-	-	-
*C240	-	BFO Plate Filter Capacitor	Same as C111	CD-48847-B10	-	-	-	-	-
C241	-	Band 2, Oscillator Trimming Capacitor	Same as C102	-	-	-	-	-	-
*C242	-	Filament By-pass Capacitor	Same as C220	CD-48848-B10	-	-	-	-	-
C243	-	Band 3, Oscillator Trimming Capacitor	Same as C103	-	-	-	-	-	-
*C244	-	Audio Cathode Filter Capacitor	Same as C218	-	-	-	-	-	-
C245	-	Band 4, Oscillator Trimming Capacitor	Same as C102	-	-	-	-	-	-
*C246	-	R-f Oscillator Padding Capacitor	Mica, 40 mmfd ±5%, 250 volts d-c working	-	RE 13A 389K	-	4	Type "moulded silver cap"	K-7877485-P21
*C247	-	Power Supply Filter Capacitor	Same as C106	-	-	-	-	-	-
*C248	-	BFO Plate Blocking Capacitor	Same as C172	CD-48691-D10	-	-	-	-	-
*C249	-	BFO Grid Blocking Capacitor	Same as C140	-	-	-	-	-	-
C250	-	Dual Trimming Capacitor	Variable, double unit, 40 mmfd	-	-	-	2	Type APC	P-7762985-P1
C250	A	2nd I-f Plate Tuning Capacitor	Included in C250	-	-	-	-	-	-
C250	B	BFO Tuning Capacitor	Included in C250	-	-	-	-	-	-
*C251	-	BFO Padding Capacitor	Mica, 230 mmfd ±0.5%, 250 volts d-c working	-	RE 13A 389K	-	4	Type "moulded silver cap"	K-7877485-P32
*C252	-	BFO Compensating Capacitor	Same as C132	-	-	-	-	-	-
*C253	-	1stI-f Screen By-pass Capacitor	Same as C111	CD-48847-B10	-	-	-	-	-
*C254	-	2nd R-f Band 3, Primary Loading Capacitor	Mica, 0.00002 mfd ±10%, 500 volts d-c working	CD-48783-D10	RE 13A 389K	-	1	Cat. No. 5RS	M-7463969-P4
*C255	-	BFO Cathode By-pass Capacitor	Same as C220	CD-48848-B10	-	-	-	-	-
*C256	-	Dual Electrolytic Capacitor	Electrolytic, 2 sections, 12-12 mfd +100%, -10%, 50 volts d-c working	-	RE 13A 549A	-	1	-	K-7878242-P1
*C257	-	2nd I-f Plate Tuning Capacitor	Same as C134	-	-	-	-	-	-
*C258	-	3rd I-f Grid Tuning Capacitor	Same as C134	-	-	-	-	-	-
*C259	-	AVC Filter Capacitor	Same as C107	-	-	-	-	-	-

Δ Symbol part designation, if any.
╥ Style or other applicable designation, if any.
* SPARE PARTS FURNISHED. Refer to Table III for quantities.

TABLE VI (CONT'D)

PARTS LIST BY SYMBOL DESIGNATIONS
FOR
NAVY MODEL RAX-1 AIRCRAFT RADIO RECEIVING EQUIPMENT
RADIO RECEIVER 1500-9000 KC, NAVY TYPE CG-46116

SYMBOL DESIGNATION	Δ	FUNCTION	DESCRIPTION	NAVY TYPE DESIG.	NAVY DWG. OR SPEC. NUMBER	╥	MFR.	MFR. DESIG.	CONTRACTOR'S DRAWING AND PART NUMBER
CAPACITORS (CONT'D)									
*C260	-	1st I-f Cathode By-pass Capacitor	Same as C220	CD-48848-B10	-	-	-	-	-
*C261	-	Screen Supply By-pass Capacitor	Same as C106	-	-	-	-	-	-
*C262	-	Power Supply Filter Capacitor	Same as C111	CD-48847-B10	-	-	-	-	-
*C263	-	Power Supply Filter Capacitor	Same as C111	CD-48847-B10	-	-	-	-	-
*C264	-	Electrolytic Capacitor	Same as C160	-	-	-	-	-	-
C264	A	Power Supply Filter Capacitor	Included in C264	-	-	-	-	-	-
C264	B	Power Supply Filter Capacitor	Included in C264	-	-	-	-	-	-
C264	C	Power Supply Filter Capacitor	Included in C264	-	-	-	-	-	-
*C265	-	2nd I-f Cathode By-pass Capacitor	Same as C220	CD-48848-B10	-	-	-	-	-
*C266	-	Power Supply Filter Capacitor	Same as C111	CD-48847-B10	-	-	-	-	-
*C267	-	2nd I-f Grid Filter Capacitor	Same as C220	CD-48848-B10	-	-	-	-	-
*C268	-	3rd I-f Grid Tuning Capacitor	Same as C134	-	-	-	-	-	-
*C269	-	2nd I-f Plate Tuning Capacitor	Mica, 560 mmfd ±5%, 250 volts d-c working	-	RE 13A 389K	-	4	Type "moulded silver cap"	K-78877485-P29
*C270	-	2nd I-f Plate Filter Capacitor	Same as C111	CD-48847-B10	-	-	-	-	-
*C271	-	3rd I-f Screen By-pass Capacitor	Same as C111	CD-48847-B10	-	-	-	-	-
*C272	-	Band 2, 1st R-f Coupling Capacitor	Same as C110	CD-48710-D10	-	-	-	-	-
*C273	-	3rd I-f Amplifier Cathode By-pass Capacitor	Same as C220	CD-48848-B10	-	-	-	-	-
*C274	-	Power Input Filter Capacitor	Same as C111	CD-48847-B10	-	-	-	-	-
*C275	-	Audio Grid Blocking Capacitor	Same as C220	CD-48848-B10	-	-	-	-	-
*C276	-	Diode Filter Capacitor	Mica, 0.0002 mfd ±10%, 500 volts d-c working	CD-48675-D10	RE 13A 389K	-	1	Cat. No. 5RS	M-7463969-P12

Δ Symbol part designation, if any.
╥ Style or other applicable designation, if any.
* SPARE PARTS FURNISHED. Refer to Table III for quantities.

TABLE VI (CONT'D)

PARTS LIST BY SYMBOL DESIGNATIONS
FOR
NAVY MODEL RAX-1 AIRCRAFT RADIO RECEIVING EQUIPMENT
RADIO RECEIVER 1500-9000 KC, NAVY TYPE CG-46116

SYMBOL DESIGNATION	Δ	FUNCTION	DESCRIPTION	NAVY TYPE DESIG.	NAVY DWG. OR SPEC. NUMBER	π	MFR.	MFR. DESIG.	CONTRACTOR'S DRAWING AND PART NUMBER
			CAPACITORS (CONT'D)						
*C277	-	AVC Diode Blocking Capacitor	Same as C191	CD-48674-D10	-	-	-	-	-
*C278	-	3rd I-f Plate Tuning Capacitor	Mica, 525 mmfd ±5%, 250 volts d-c working	-	RE 13A 389K	-	4	-	K-7877485-P18
*C279	-	Audio Diode Tuning Capacitor	Mica, 215 mmfd ±5%, 250 volts d-c working	-	RE 13A 389K	-	1	Type "moulded silver cap"	K-7877485-P25
*C280	-	Audio Diode Filter Capacitor	Mica, 0.0003 mfd ±10%, 500 volts d-c working	CD-481014-D10	RE 13A 389K	-	1	Cat. No. 5RS	M-7463969-P14
*C281	-	3rd I-f Plate Filter Capacitor	Same as C111	CD-48847-B10	-	-	-	-	-
*C282	-	Audio Plate Filter Capacitor	Mica, 0.0025 mfd ±10%, 500 volts d-c working	CD-481089-B10	RE 13A 389K	-	1	Cat. No. 1WLS	P-7762455-P23
*C283	-	Antenna Coupling Capacitor	Same as C110	CD-48710-D10	-	-	-	-	-
*C284	-	1st R-f Cathode By-pass Capacitor	Same as C220	CD-48848-B10	-	-	-	-	-
*C285	-	2nd R-f Coupling Capacitor	Same as C110	CD-48710-D10	-	-	-	-	-
*C286	-	Band 2, Antenna Primary Loading Capacitor	Same as C108	CD-48895-D10	-	-	-	-	-
*C287	-	2nd R-f Primary Loading Capacitor	Same as C191	CD-48674-D10	-	-	-	-	-
*C288	-	Band 1, Oscillator Series Padding Capacitor	Mica, 612 mmfd ±0.75%, 250 volts d-c working	-	RE 13A 389K	-	4	Type "moulded silver cap"	K-7877485-P12
*C289	-	Band 2, Oscillator Series Padding Capacitor	Same as C142	-	-	-	-	-	-
*C290	-	Band 3, Oscillator Padding Capacitor	Mica, 1197 mmfd ±1.5%, 250 volts d-c working	-	RE 13A 389K	-	4	Type "moulded silver cap"	K-7877485-P7
*C291	-	Band 4, Antenna Series Padding Capacitor	Mica, 2390 mmfd ±5%, 250 volts d-c working	-	RE 13A 389K	-	4	Type "moulded silver cap"	K-7877485-P6
*C292	-	1st I-f Grid Filter Capacitor	Same as C111	CD-48847-B10	-	-	-	-	-
*C293	-	2nd I-f Cathode By-pass Capacitor	Same as C220	CD-48848-B10	-	-	-	-	-
C294	-	Not Used		-	-	-	-	-	-
*C295	-	1st R-f Primary Loading Capacitor	Same as C191	CD-48674-D10	-	-	-	-	-
*C296	-	I-f Trap Tuning Capacitor	Same as C110	CD-48710-D10	-	-	-	-	-
*C297	-	Band 4, 1st R-f Padding Capacitor	Same as C291	-	-	-	-	-	-

Δ Symbol part designation, if any.
π Style or other applicable designation, if any.
* SPARE PARTS FURNISHED. Refer to Table III for quantities.

TABLE VI (CONT'D)

PARTS LIST BY SYMBOL DESIGNATIONS
FOR
NAVY MODEL RAX-1 AIRCRAFT RADIO RECEIVING EQUIPMENT
RADIO RECEIVER 1500-9000 KC, NAVY TYPE CG-46116

SYMBOL DESIGNATION	Δ	FUNCTION	DESCRIPTION	NAVY TYPE DESIG.	NAVY DWG. OR SPEC. NUMBER	π	MFR.	MFR. DESIG.	CONTRACTOR'S DRAWING AND PART NUMBER
			CAPACITORS (CONT'D)						
*C298	-	Band 4, 2nd R-f Padding Capacitor	Same as C291	-	-	-	-	-	-
*C299	-	Band 2, 2nd R-f Primary Loading Capacitor	Same as C254	-	-	-	-	-	-
*C1201	-	Band 3, Antenna Primary Loading Capacitor	Same as C108	CD-48895-D10	-	-	-	-	-
*C1202	-	Band 4, Antenna Primary Loading Capacitor	Same as C122	CD-48711-D10	-	-	-	-	-
*C1203	-	Power Input Filter Capacitor	Same as C220	CD-48848-B10	-	-	-	-	-
*C1204	-	Audio Diode Filter Capacitor	Same as C191	CD-48674-D10	-	-	-	-	-
*C1205	-	BFO Plate By-pass Capacitor	Same as C111	CD-48847-B10	-	-	-	-	-
*C1206	-	1st I-f Amplifier Screen By-pass Capacitor	Same as C111	CD-48847-B10	-	-	-	-	-
			DYNAMOTORS						
D201	-	Dynamotor	Same as D101	-	-	-	-	-	-
			FUSES						
*F201	-	Power Input Fuse	Same as F101	-	-	-	-	-	-
			JACKS						
J201	-	Phone Jack	Same as J101	-	-	-	-	-	-
			PLUGS						
P201	-	Power Plug	Same as P101	-	-	-	-	-	-
			CHOKE COILS AND REACTORS						
L201 to L204 Incl.	-	Not Used	-	-	-	-	-	-	-
*L205	-	Power Supply R-f Choke Coil	Same as L103	-	-	-	-	-	-

Δ Symbol part designation, if any.
π Style or other applicable designation, if any.
* SPARE PARTS FURNISHED. Refer to Table III for quantities.

TABLE VI (CONT'D)

PARTS LIST BY SYMBOL DESIGNATIONS
FOR
NAVY MODEL RAX-1 AIRCRAFT RADIO RECEIVING EQUIPMENT
RADIO RECEIVER 1500-9000 KC, NAVY TYPE CG-46116

SYMBOL DESIGNATION	Δ	FUNCTION	DESCRIPTION	NAVY TYPE DESIG.	NAVY DWG. OR SPEC. NUMBER	π	MFR.	MFR. DESIG.	CONTRACTOR'S DRAWING AND PART NUMBER
			CHOKE COILS AND REACTORS (CONT'D)						
*L206	-	Power Supply Reactor	Same as L104	-	-	-	-	-	-
*L207	-	Power Input R-f Choke Coil	Same as L105	-	-	-	-	-	-
*L208	-	Power Input R-f Choke Coil	Same as L108	-	-	-	-	-	-
L209	-	I-f Wave Trap Reactor	Consists of 2 sections, each 181 turns, copper wire, Universal wound on 3/8-in. comp. coil form, 2.1 microhenries ±2%	-	-	-	4	-	M-7464921-G1
*L210	-	Audio Cathode Filter Reactor	Consists of 1350 turns, tapped at 675 turns, wire 0.0063-in. diam bare, 0.009-in. diam ES, wound on a compound coil form	-	-	-	4	-	P-7763160-G1
*L211	-	1st I-f Filament Choke Coil	Same as L108	-	-	-	-	-	
			RESISTORS AND RHEOSTATS						
R201	-	Not Used		-	-	-	-	-	-
*R202	-	1st R-f Grid Resistor	Same as R103	CBZ-63360	-	-	-	-	-
*R203	-	Converter Plate Filter Resistor	Composition, 820 ohms ±10%, 1/2 watt	CBZ-63360	RE 13A 372G	-	8	-	P-7763599-P61
*R204	-	2nd R-f Gain Equalizing Resistor	Composition, 620 ohms ±5%, 1/2 watt	CBZ-63355	RE 13A 372G	-	8	Type EB	P-7763599-P154
*R205	-	1st R-f Plate Filter Resistor	Composition, 2200 ohms ±10%, 1/2 watt	CBZ-63360	RE 13A 372G	-	8	Type EB	P-7763599-P66
*R206	-	2nd R-f Grid Resistor	Same as R103	CBZ-63360	-	-	-	-	-
*R207	-	2nd R-f Cathode Resistor	Composition, 300 ohms ±5%, 1/2 watt	CBZ-63355	RE 13A 372G	-	8	Type EB	P-7763599-P146
*R208	-	2nd R-f Gain Equalizing Resistor	Composition, 3000 ohms ±5%, 1/2 watt	CBZ-63355	RE 13A 372G	-	8	Type EB	P-7763599-P170
*R209	-	R-f Screen Resistor	Composition, 1200 ohms ±5%, 1/2 watt	CBZ-63355	RE 13A 372G	-	8	Type EB	P-7763599-P161
*R210	-	Audio Cathode Resistor	Same as R147	CBZ-63291	-	-	-	-	-
*R211	-	2nd R-f Plate Filter Resistor	Same as R205	CBZ-63360	-	-	-	-	-
*R212	-	Converter Grid Resistor	Same as R103	CBZ-63360	-	-	-	-	-
*R213	-	Converter Cathode Resistor	Composition, 330 ohms ±5%, 1 watt	CBZ-63355	RE 13A 372G	-	8	Type EB	P-7763599-P147
*R214	-	R-f Oscillator Plate Resistor	Composition, 39,000 ohms ±5%, 1/2 watt	CBZ-63355	RE 13A 372G	-	8	Type EB	P-7763599-P197
*R215	-	Converter Screen Resistor	Composition, 12,000 ohms ±5%, 1/2 watt	CBZ-63355	RE 13A 372G	-	8	Type EB	P-7763599-P185

Δ Symbol part designation, if any.
π Style or other applicable designation, if any.
* SPARE PARTS FURNISHED. Refer to Table III for quantities.

TABLE VI (CONT'D)

PARTS LIST BY SYMBOL DESIGNATIONS
FOR
NAVY MODEL RAX-1 AIRCRAFT RADIO RECEIVING EQUIPMENT
RADIO RECEIVER 1500-9000 KC, NAVY TYPE OC-46116

SYMBOL DESIGNATION	Δ	FUNCTION	DESCRIPTION	NAVY TYPE DESIG.	NAVY DWG. OR SPEC. NUMBER	▼	MFR.	MFR. DESIG.	CONTRACTOR'S DRAWING AND PART NUMBER
			RESISTORS AND RHEOSTATS (CONT'D)						
*R216	-	R-f Oscillator Grid Resistor	Composition, 51,000 ohms ±5%, 1/2 watt	CBZ-63355	RE 13A 372G	-	8	Type EB	P-7763599-P200
*R217	-	1st I-f Grid Filter Resistor	Composition, 47,000 ohms ±5%, 1/2 watt	CBZ-63355	RE 13A 372G	-	8	Type EB	P-7763599-P199
*R218	-	BFO Cathode Resistor	Composition, 15,000 ohms ±5%, 1/2 watt	CBZ-63355	RE 13A 372G	-	8	Type EB	P-7763599-P187
*R219	-	MCW Voltage Equalizing Resistor	Composition, 120,000 ohms ±5%, 1/2 watt	CBZ-63355	RE 13A 372G	-	8	Type EB	P-7763599-P209
*R220	-	1st I-f Cathode Resistor	Same as R209	CBZ-63355	-	-	-	-	-
*R221	-	AVC Filter Resistor	Same as R164	CBZ-63355	-	-	-	-	-
*R222	-	BFO Plate Resistor	Same as R214	CBZ-63355	-	-	-	-	-
*R223	-	BFO Grid Resistor	Composition, 200,000 ohms ±5%, 1/2 watt	CBZ-63355	RE 13A 372G	-	8	Type EB	P-7763599-P214
*R224	-	2nd I-f Cathode Resistor	Same as R207	CBZ-63355	-	-	-	-	-
*R225	-	AVC Filter Resistor	Same as R103	CBZ-63360	-	-	-	-	-
*R226	-	Screen Supply Bleeder Resistor	Composition, 11,000 ohms ±5%, 1 watt	CBZ-63291	RE 13A 372G	-	8	Type GB	P-7763600-P184
*R227	-	BFO Plate Filter Resistor	Same as R205	CBZ-63360	-	-	-	-	-
*R228	-	Volume Control Gang Potentiometer	2 rheostats mounted in tandem. Consists of R228A and R228B	-	-	-	8	Bradleyometer Type JJ	M-7464321-P2
R228	A	MVC Section of Potentiometer	Total resistance 6250 ohms ±10%. Included in R228.	-	-	-	-	-	-
R228	B	AVC Section of Potentiometer	Total resistance 800,000 ohms ±10%. Included in R228.	-	-	-	-	-	-
*R229	-	2nd I-f Plate Filter Resistor	Same as R205	CBZ-63360	-	-	-	-	-
*R230	-	Converter Plate Damping Resistor	Composition, 82,000 ohms ±5%, 1/2 watt	CBZ-63355	RE 13A 372G	-	8	Type EB	P-7763599-P205
*R231	-	1st I-f Grid Damping Resistor	Same as R230	CBZ-63355	-	-	-	-	-
*R232	-	3rd I-f Cathode Resistor	Same as R168	CBZ-63355	-	-	-	-	-
*R233	-	AVC Diode Load Resistor	Composition, 470,000 ohms ±5%, 1/2 watt	CBZ-63355	RE 13A 372G	-	8	Type EB	P-7763599-P223
*R234	-	BFO Voltage Equalizing Resistor	Composition, 24,000 ohms ±5%, 1/2 watt	CBZ-63355	RE 13A 372G	-	8	Type EB	P-7763599-P192
*R235	-	3rd I-f Plate Filter Resistor	Same as R203	CBZ-63360	-	-	-	-	-
*R236	-	Diode Filter Resistor	Same as R214	CBZ-63355	-	-	-	-	-

Δ Symbol part designation, if any.
▼ Style or other applicable designation, if any.
* SPARE PARTS FURNISHED. Refer to Table III for quantities.

TABLE VI (CONT'D)

PARTS LIST BY SYMBOL DESIGNATIONS
FOR
NAVY MODEL RAX-1 AIRCRAFT RADIO RECEIVING EQUIPMENT
RADIO RECEIVER 1500-9000 KC, NAVY TYPE CG-46116

SYMBOL DESIGNATION	Δ	FUNCTION	DESCRIPTION	NAVY TYPE DESIG.	NAVY DWG. OR SPEC. NUMBER	₸	MFR.	MFR. DESIG.	CONTRACTOR'S DRAWING AND PART NUMBER
			RESISTORS AND RHEOSTATS (CONT'D)						
*R237	-	Diode Load Resistor	Composition, 300,000 ohms ±5%, 1/2 watt	CBZ-63355	RE 13A 372G	-	8	Type EB	P-7763599-P218
*R238	-	Diode Filter Resistor	Same as R107	CBZ-63360	-	-	-	-	-
*R239	-	1st R-f Cathode Resistor	Same as R207	CBZ-63355	-	-	-	-	-
*R240	-	2nd I-f Grid Damping Resistor	Same as R230	CBZ-63355	-	-	-	-	-
*R241	-	3rd I-f Screen Resistor	Same as R215	CBZ-63355	-	-	-	-	-
*R242	-	3rd I-f Grid Damping Resistor	Same as R216	CBZ-63355	-	-	-	-	-
*R243	-	Band 1, 2nd R-f Gain Equalizing Resistor	Composition, 2000 ohms ±5%, 1/2 watt	CBZ-63355	RE 13A 372G	-	8	Type EB	P-7763599-P166
*R244	-	MVC Bias Bleeder Resistor	Same as R230	CBZ-63355	-	-	-	-	-
*R245	-	2nd I-f Grid Filter Resistor	Same as R217	CBZ-63355	-	-	-	-	-
*R246	-	Screen Supply Bleeder Resistor	Composition, 33,000 ohms ±5%, 1 watt	CBZ-63291	RE 13A 372G	-	8	Type GB	P-7763600-P195
*R247	-	BFO Cathode Resistor	Same as R234	CBZ-63355	-	-	-	-	-
*R248	-	1st I-f Plate Filter Resistor	Same as R168	CBZ-63355	-	-	-	-	-
*R249	-	2nd I-f Plate Damping Resistor	Same as R214	CBZ-63355	-	-	-	-	-
*R250	-	1st I-f Screen Filter Resistor	Composition, 5600 ohms ±10%, 1/2 watt	CBZ-63360	RE 13A 372G	-	8	Type EB	P-7763599-P71
*R251	-	1st I-f Plate Damping Resistor	Same as R230	CBZ-63355	-	-	-	-	-
*R252	-	Screen Supply Bleeder Resistor	Same as R226	CBZ-63291	-	-	-	-	-
*R253	-	1st I-f Cathode Resistor	Same as R168	CBZ-63355	-	-	-	-	-
			SWITCHES						
S201	-	Antenna Band Switch	Same as S101	-	-	-	-	-	-
S201	A	Antenna Band Switch	Included in S201	-	-	-	-	-	-
S201	B	Antenna Band Switch	Included in S201	-	-	-	-	-	-
S201	C	Antenna Band Switch	Included in S201	-	-	-	-	-	-
S201	D	Antenna Band Switch	Included in S201	-	-	-	-	-	-
S202	-	1st R-f Band Switch	Same as S101	-	-	-	-	-	-
S202	A	1st R-f Band Switch	Included in S202	-	-	-	-	-	-
S202	B	1st R-f Band Switch	Included in S202	-	-	-	-	-	-
S202	C	1st R-f Band Switch	Included in S202	-	-	-	-	-	-

Δ Symbol part designation, if any.
₸ Style or other applicable designation, if any.
* SPARE PARTS FURNISHED. Refer to Table III for quantities.

TABLE VI (CONT'D)

PARTS LIST BY SYMBOL DESIGNATIONS
FOR
NAVY MODEL RAX-1 AIRCRAFT RADIO RECEIVING EQUIPMENT
RADIO RECEIVER 1500-9000 KC, NAVY TYPE CG-46116

SYMBOL DESIGNATION	Δ	FUNCTION	DESCRIPTION	NAVY TYPE DESIG.	NAVY DWG. OR SPEC. NUMBER	▼	MFR.	MFR. DESIG.	CONTRACTOR'S DRAWING AND PART NUMBER
			SWITCHES (CONT'D)						
S202	D	1st R-f Band Switch	Included in S202	-	-	-	-	-	-
S203	-	2nd R-f Band Switch	Same as S101	-	-	-	-	-	-
S203	A	2nd R-f Band Switch	Included in S203	-	-	-	-	-	-
S203	B	2nd R-f Band Switch	Included in S203	-	-	-	-	-	-
S203	C	2nd R-f Band Switch	Included in S203	-	-	-	-	-	-
S203	D	2nd R-f Band Switch	Included in S203	-	-	-	-	-	-
S204	-	R-f Oscillator Band Switch	Rotary tap switch, 4-position, 4-bank	-	-	-	9	-	M-7464376-P6
S204	A	R-f Oscillator Band Switch	Included in S204	-	-	-	-	-	-
S204	B	R-f Oscillator Band Switch	Included in S204	-	-	-	-	-	-
S204	C	R-f Oscillator Band Switch	Included in S204	-	-	-	-	-	-
S204	D	R-f Oscillator Band Switch	Included in S204	-	-	-	-	-	-
S205	-	AVC-MVC Switch	Same as S102	-	-	-	-	-	-
S205	A	AVC-MVC Switch	Included in S205	-	-	-	-	-	-
S205	B	AVC-MVC Switch	Included in S205	-	-	-	-	-	-
S205	C	AVC-MVC Switch	Included in S205	-	-	-	-	-	-
S206	-	Not Used		-	-	-	-	-	-
S207	-	CW-MCW Switch	Same as C103	-	-	-	-	-	-
S207	A	CW-MCW Switch	Included in S207	-	-	-	-	-	-
S207	B	CW-MCW Switch	Included in S207	-	-	-	-	-	-
			TRANSFORMERS						
T201	-	Band 1, Antenna Transformer	Primary, 20 turns, ES wire Universal wound, 11.9 microhenries (approx) Secondary, 70 1/2 turns E wire, 37.9 microhenries (approx) Mutual inductance 4.6 microhenries	-	-	-	4	-	K-7877362-P1
T202	-	Band 2, Antenna Transformer	Primary, 69 1/2 turns ES wire, Universal wound, 99.8 microhenries (approx) Secondary, 52 1/2 turns E wire, 15.8 microhenries (approx) Mutual inductance 8.3 microhenries (approx)	-	-	-	4	-	K-7877363-P1
T203	-	Band 3, Antenna Transformer	Primary, 48 1/2 turns ES wire, Universal wound, 48.8 microhenries (approx) Secondary, 30 1/2 turns E wire, 6.1 microhenries (approx) Mutual inductance 3.7 microhenries	-	-	-	4	-	K-7877364-P1

Δ Symbol part designation, if any.
▼ Style or other applicable designation, if any.
* SPARE PARTS FURNISHED. Refer to Table III for quantities.

TABLE VI (CONT'D)

PARTS LIST BY SYMBOL DESIGNATIONS
FOR
NAVY MODEL RAX-1 AIRCRAFT RADIO RECEIVING EQUIPMENT
RADIO RECEIVER 1500-9000 KC, NAVY TYPE CG-46116

SYMBOL DESIGNATION	Δ	FUNCTION	DESCRIPTION	NAVY TYPE DESIG.	NAVY DWG. OR SPEC. NUMBER	☨	MFR.	MFR. DESIG.	CONTRACTOR'S DRAWING AND PART NUMBER
			TRANSFORMERS (CONT'D)						
T204	-	Band 4, Antenna Transformer	Primary, 29 1/2 turns ES wire, Universal wound, 24.6 microhenries (approx) Secondary, 3.0 microhenries (approx) Mutual inductance 2.1 microhenries (approx)	-	-	-	4	-	K-7877365-P1
T205	-	1st R-f Band 1 Transformer	Primary, 138 1/2 turns ES wire, Universal wound, 479.3 microhenries (approx) Secondary, 72 1/2 turns E wire, 40.5 microhenries (approx) Mutual inductance 27.5 microhenries (approx)	-	-	-	4	-	K-7877366-P1
T206	-	1st R-f Band 3 Transformer	Primary, 68 1/2 turns ES wire, Universal wound, 99.5 microhenries (approx) Secondary, 49 1/2 turns E wire, 15.6 microhenries (approx) Mutual inductance 6.8 microhenries (approx)	-	-	-	4	-	K-7877367-P1
T207	-	1st R-f Band 3 Transformer	Primary, 49 1/2 turns ES wire, Universal wound, 50.8 microhenries (approx) Secondary, 29 1/2 turns E wire, 6.0 microhenries (approx) Mutual inductance 3.6 microhenries (approx)	-	-	-	4	-	K-7877368-P1
T208	-	1st R-f Band 4 Transformer	Primary, 35 1/2 turns ES wire, Universal wound, 32.8 microhenries (approx) Secondary, 16 1/2 turns E wire, 2.9 microhenries (approx) Mutual inductance 2.4 microhenries (approx)	-	-	-	4	-	K-7877369-P1
T209	-	1st I-f Transformer	Primary, 66 turns ES wire Secondary, 66 turns ES wire, 35.0 microhenries (approx)	-	-	-	4	-	P-7763103-G1

Δ Symbol part designation, if any.
☨ Style or other applicable designation, if any.
* SPARE PARTS FURNISHED. Refer to Table III for quantities.

TABLE VI (CONT'D)

PARTS LIST BY SYMBOL DESIGNATIONS
FOR
NAVY MODEL RAX-1 AIRCRAFT RADIO RECEIVING EQUIPMENT
RADIO RECEIVER 1500-9000 KC, NAVY TYPE CG-46116

SYMBOL DESIGNATION	Δ	FUNCTION	DESCRIPTION	NAVY TYPE DESIG.	NAVY DWG. OR SPEC. NUMBER	╥	MFR.	MFR. DESIG.	CONTRACTOR'S DRAWING AND PART NUMBER
			TRANSFORMERS (CONT'D)						
T210	-	Band 1, R-f Oscillator Transformer	Primary, 26 1/2 turns ES wire, 14.6 microhenries (approx) Secondary, 42 1/2 turns E wire, 21.3 microhenries (approx) Mutual inductance 4.55 microhenries (approx)	-	-	-	4	-	K-7877374-P1
T211	-	Band 2, R-f Oscillator Transformer	Primary, 29 1/2 turns ES wire, 12.3 microhenries (approx) Secondary, 33 1/2 turns E wire, 10.6 microhenries (approx) Mutual inductance 2.8 microhenries (approx)	-	-	-	4	-	K-7877375-P1
T212	-	Band 3, R-f Oscillator Transformer	Primary, 20 1/2 turns ES wire, 6.9 microhenries (approx) Secondary, 22 1/2 turns E wire, 4.6 microhenries (approx)	-	-	-	4	-	K-7877376-P1
T213	-	Band 4, R-f Oscillator Transformer	Primary, 16 1/2 turns, close wound ES wire, 5.0 microhenries (approx) Secondary, 17 1/2 turns E wire, 3.3 microhenries (approx) Mutual inductance 1.2 microhenries (approx)	-	-	-	4	-	K-7877377-P1
T214	-	BFO - 3rd I-f Transformer	Primary, 84 turns ES wire, 40 microhenries ±0.5% Secondary, 66 turns ES wire, 52 microhenries ±1% BFO, 139 turns ES wire, 268 microhenries ±0.5%, 68 turns ES wire, 69 microhenries ±0.5%	-	-	-	4	-	P-7763105-G1
T215	-	2nd I-f Transformer	Primary, 66 turns ES wire, 35.0 microhenries ±1% Secondary, 66 turns ES wire, 35.0 microhenries ±1%	-	-	-	4	-	P-7763104-G1
T216	-	4th I-f Transformer	Primary, 74 turns ES wire, 46.5 microhenries ±1% Secondary, 111 turns ES wire, 104 microhenries ±1%	-	-	-	4	-	P-7763106-G1
*T217	-	Output Transformers	Same as C117	-	-	-	-	-	-
T218	-	Not Used	-	-	-	-	-	-	-

Δ Symbol part designation, if any.
╥ Style or other applicable designation, if any.
* SPARE PARTS FURNISHED. Refer to Table III for quantities.

TABLE VI (CONT'D)

PARTS LIST BY SYMBOL DESIGNATIONS
FOR
NAVY MODEL RAX-1 AIRCRAFT RADIO RECEIVING EQUIPMENT
RADIO RECEIVER 1500-9000 KC, NAVY TYPE CG-46116

SYMBOL DESIGNATION	Δ	FUNCTION	DESCRIPTION	NAVY TYPE DESIG.	NAVY DWG. OR SPEC. NUMBER	₸	MFR.	MFR. DESIG.	CONTRACTOR'S DRAWING AND PART NUMBER
			TRANSFORMERS (CONT'D)						
T219	-	Band 1, 2nd R-f Transformer	Primary, 170 1/2 turns ES wire, Universal wound, 723.6 microhenries (approx) Secondary, 73 1/2 turns E wire, 40.8 microhenries (approx) Mutual inductance 34.2 microhenries (approx)	-	-	-	4	-	K-7877370-P1
T220	-	Band 2, 2nd R-f Transformer	Primary, 68 1/2 turns ES wire, Universal wound, 100 microhenries (approx) Secondary, 49 1/2 turns E wire, 15.7 microhenries (approx) Mutual inductance 7.5 microhenries (approx)	-	-	-	4	-	K-7877371-P1
T221	-	Band 3, 2nd R-f Transformer	Primary, 49 1/2 turns ES wire, Universal wound, 50.0 microhenries (approx) Secondary, 30 1/2 turns E wire, 6.1 microhenries (approx) Mutual inductance 3.7 microhenries (approx)	-	-	-	4	-	K-7877372-P1
T222	-	Band 4, 2nd R-f Transformer	Primary, 35 1/2 turns ES wire, Universal wound, 35.0 microhenries (approx) Secondary, 16 3/4 turns E wire, 3.0 microhenries (approx) Mutual inductance 2.4 microhenries (approx)	-	-	-	4	-	K-7877373-P1
			VACUUM TUBES						
*V201	-	1st R-f Amplifier Tube	Same as V101	CRC-12SK7	-	-	-	-	-
*V202	-	2nd R-f Amplifier Tube	Same as V101	CRC-12SK7	-	-	-	-	-
*V203	-	Converter Tube	Same as V102	CRC-12SK8	-	-	-	-	-
*V204	-	1st I-f Amplifier Tube	Same as V101	CRC-12SK7	-	-	-	-	-
*V205	-	2nd I-f Amplifier Tube	Same as V101	CRC-12SK7	-	-	-	-	-
*V206	-	3rd I-f Amplifier Tube	Same as V101	CRC-12SK7	-	-	-	-	-
*V207	-	Audio Amplifier Tube	Same as V105	CRC-12A6	-	-	-	-	-
*V208	-	BFO - 2nd Detector Tube	Same as V106	CRC-12SR7	-	-	-	-	-

Δ Symbol part designation, if any.
₸ Style or other applicable designation, if any.
* SPARE PARTS FURNISHED. Refer to Table III for quantities.

TABLE VI (CONT'D)

PARTS LIST BY SYMBOL DESIGNATIONS
FOR
NAVY MODEL RAX-1 AIRCRAFT RADIO RECEIVING EQUIPMENT
RADIO RECEIVER 1500-9000 KC, NAVY TYPE CG-46116

SYMBOL DESIGNATION	Δ	FUNCTION	DESCRIPTION	NAVY TYPE DESIG.	NAVY DWG. OR SPEC. NUMBER	₸	MFR.	MFR. DESIG.	CONTRACTOR'S DRAWING AND PART NUMBER
			VACUUM TUBES (CONT'D)						
*V209	-	Input Voltage Limiter Glow Tube	Same as V107	-	-	-	-	-	-
			VACUUM TUBE SOCKETS						
X201	-	1st R-f Tube Socket	Same as X101	CPH-49373	-	-	-	-	-
X202	-	2nd R-f Tube Socket	Same as X101	CPH-49373	-	-	-	-	-
X203	-	Converter Tube Socket	Same as X101	CPH-49373	-	-	-	-	-
X204	-	1st I-f Tube Socket	Same as X101	CPH-49373	-	-	-	-	-
X205	-	2nd I-f Tube Socket	Same as X101	CPH-49373	-	-	-	-	-
X206	-	3rd I-f Tube Socket	Same as X101	CPH-49373	-	-	-	-	-
X207	-	Audio Tube Socket	Same as X101	CPH-49373	-	-	-	-	-
X208	-	BFO - 2nd Detector	Same as X101	CPH-49373	-	-	-	-	-

Δ Symbol part designation, if any.
₸ Style or other applicable designation, if any.
* SPARE PARTS FURNISHED. Refer to Table III for quantities.

TABLE VI (CONT'D)

PARTS LIST BY SYMBOL DESIGNATIONS
FOR
NAVY MODEL RAX-1 AIRCRAFT RADIO RECEIVING EQUIPMENT
RADIO RECEIVER 7000-27,000 KC, NAVY TYPE CG-46117

SYMBOL DESIGNATION	Δ	FUNCTION	DESCRIPTION	NAVY TYPE DESIG.	NAVY DWG. OR SPEC. NUMBER	▼	MFR.	MFR. DESIG.	CONTRACTOR'S DRAWING AND PART NUMBER
			CAPACITORS						
C301	-	Not Used		-	-	-	-	-	-
C302	-	Band 1, Antenna Trimming Capacitor	Same as C102	-	-	-	-	-	-
C303	-	Band 2, Antenna Trimming Capacitor	Same as C103	-	-	-	-	-	-
C304	-	Band 3, Antenna Trimming Capacitor	Same as C102	-	-	-	-	-	-
C305	-	Band 4, Antenna Trimming Capacitor	Same as C102	-	-	-	-	-	-
C306	-	Band 5, Antenna Trimming Capacitor	Same as C103	-	-	-	-	-	-
*C307	-	1st R-f Cathode By-pass Capacitor	Same as C111	CD-48847-B10	-	-	-	-	-
C308	-	Not Used		-	-	-	-	-	-
C309	-	Tuning Capacitor	Variable, 102 mmf (approx) 4 section	-	-	-	3	Model No. 3004	TT-7660270-G1
C309	A	Tuning Capacitor	Included in C309	-	-	-	-	-	-
C309	B	Tuning Capacitor	Included in C309	-	-	-	-	-	-
C309	C	Tuning Capacitor	Included in C309	-	-	-	-	-	-
C309	D	Tuning Capacitor	Included in C309	-	-	-	-	-	-
C310	-	Antenna Trimming Capacitor	Variable, 16 mmfd	-	-	-	2	APC Type B	P-7761345-P15
*C311	-	1st I-f Plate Filter Capacitor	Same as C111	CD-48847-B10	-	-	-	-	-
*C312	-	1st R-f Screen By-pass Capacitor	Same as C111	CD-48847-B10	-	-	-	-	-
*C313	-	1st R-f Plate Filter Capacitor	Same as C111	CD-48847-B10	-	-	-	-	-
C314	-	Band 1, 1st R-f Trimming Capacitor	Same as C102	-	-	-	-	-	-
C315	-	Band 2, 1st R-f Trimming Capacitor	Same as C103	-	-	-	-	-	-
C316	-	Band 3, 1st R-f Trimming Capacitor	Same as C102	-	-	-	-	-	-
C317	-	Band 4, 1st R-f Trimming Capacitor	Same as C102	-	-	-	-	-	-
C318	-	Band 5, 1st R-f Trimming Capacitor	Same as C103	-	-	-	-	-	-
*C319	-	Padding Capacitor (1st R-f Tuning Capacitor)	Same as C135	-	-	-	-	-	-

Δ Symbol part designation, if any.
▼ Style or other applicable designation, if any.
* SPARE PARTS FURNISHED. Refer to Table III for quantities.

TABLE VI (CONT'D)

PARTS LIST BY SYMBOL DESIGNATIONS
FOR
NAVY MODEL RAX-1 AIRCRAFT RADIO RECEIVING EQUIPMENT
RADIO RECEIVER 7000-27,000 KC, NAVY TYPE CG-46117

SYMBOL DESIGNATION	Δ	FUNCTION	DESCRIPTION	NAVY TYPE DESIG.	NAVY DWG. OR SPEC. NUMBER	▼	MFR.	MFR. DESIG.	CONTRACTOR'S DRAWING AND PART NUMBER
			CAPACITORS (CONT'D)						
C320	-	Not Used		-	-	-	-	-	-
*C321	-	Filter Capacitor	Same as C256	-	-	-	-	-	-
C321	A	Manual Volume Control By-pass Capacitor	Included in C321	-	-	-	-	-	-
C321	B	Power Input Filter Capacitor	Included in C321	-	-	-	-	-	-
*C322	-	2nd R-f Cathode By-pass Capacitor	Same as C111	CD-48847-B10	-	-	-	-	-
*C323	-	2nd R-f Screen By-pass Capacitor	Same as C111	CD-48847-B10	-	-	-	-	-
*C324	-	Antenna Padding Capacitor	Same as C110	-	-	-	-	-	-
C325	-	Band 1, 2nd R-f Trimming Capacitor	Same as C102	-	-	-	-	-	-
C326	-	Band 2, 2nd R-f Trimming Capacitor	Same as C103	-	-	-	-	-	-
C327	-	Band 3, 2nd R-f Trimming Capacitor	Same as C102	-	-	-	-	-	-
C328	-	Band 4, 2nd R-f Trimming Capacitor	Same as C102	-	-	-	-	-	-
C329	-	Band 5, 2nd R-f Trimming Capacitor	Same as C103	-	-	-	-	-	-
*C330	-	Converter Grid Blocking Capacitor	Same as C171	CD-481015-D10	-	-	-	-	-
*C331	-	Padding Capacitor (2nd R-f Tuning Capacitor)	Same as C319	-	-	-	-	-	-
C332	-	Not Used		-	-	-	-	-	-
*C333	-	2nd R-f Plate Filter Capacitor	Same as C111	CD-48847-B10	-	-	-	-	-
*C334	-	Converter Cathode By-pass Capacitor	Same as C111	CD-48847-B10	-	-	-	-	-
*C335	-	Converter Screen By-pass Capacitor	Same as C111	CD-48847-B10	-	-	-	-	-
*C336	-	Converter Oscillator Grid Blocking Capacitor	Mica, 25 mmfd ±5%, 250 volts d-c working	-	RE 13A 389K	-	4	Type "moulded silver cap"	K-7877485-P14
*C337	-	Converter Oscillator Plate Blocking Capacitor	Same as C134	-	-	-	-	-	
*C338	-	Converter Plate Tuning Capacitor	Mica, 300 mmfd ±5%, 250 volts d-c working, included with T311	-	RE 13A 389K	-	4	Type "moulded silver cap"	K-7877485-P27

Δ Symbol part designation, if any.
▼ Style or other applicable designation, if any.
* SPARE PARTS FURNISHED. Refer to Table III for quantities.

TABLE VI (CONT'D)

PARTS LIST BY SYMBOL DESIGNATIONS
FOR
NAVY MODEL RAX-1 AIRCRAFT RADIO RECEIVING EQUIPMENT
RADIO RECEIVER 7000-27,000 KC, NAVY TYPE CG-46117

SYMBOL DESIGNATION	Δ	FUNCTION	DESCRIPTION	NAVY TYPE DESIG.	NAVY DWG. OR SPEC. NUMBER	⊤	MFR.	MFR. DESIG.	CONTRACTOR'S DRAWING AND PART NUMBER
			CAPACITORS (CONT'D)						
*C339	-	1st I-f Grid Tuning Capacitor	Same as C338, included with T311	-	-	-	-	-	-
*C340	-	Beat Oscillator Plate Blocking Capacitor	Same as C134, included with T312	-	-	-	-	-	-
*C341	-	Beat Oscillator Grid Blocking Capacitor	Same as C336, included with T312	-	-	-	-	-	-
C342	-	I-f Tuning Capacitor	Same as C250, included with T312	-	-	-	-	-	-
C342	A	Beat Oscillator Tuning Capacitor	Included with C342	-	-	-	-	-	-
C342	B	3rd I-f Plate Tuning Capacitor	Included with C342	-	-	-	-	-	-
*C343	-	Beat Oscillator Tuning Capacitor	Mica, 200 mmfd ±0.5%, 250 volts d-c working, included with T312	-	RE 13A 389K	-	4	-	K-7877485-P42
*C344	-	Beat Oscillator Temperature Compensating Capacitor	Ceramicon, 30 mmfd ±5%, 500 volts d-c working, temperature coefficient 0.000680 mmf/mmf/deg C, included with T312	-	-	-	5	Type N680K (modified)	K-7877141-P5
*C345	-	1st I-f AVC Filter Capacitor	Same as C111, included with T311	CD-48847-D10	-	-	-	-	-
*C346	-	R-f Oscillator Temperature Compensating Capacitor	Ceramicon, 26 mmfd ±5%, 500 volts d-c working, temperature coefficient 0.000680 mmf/mmf/deg C	-	-	-	5	Type N680K (modified)	K-7877141-P4
C347	-	Band 1, R-f Oscillator Trimming Capacitor	Same as C102	-	-	-	-	-	-
*C348	-	Band 2, R-f Oscillator Padding Capacitor	Same as C246	-	-	-	-	-	-
C349	-	Band 2, R-f Oscillator Trimming Capacitor	Same as C103	-	-	-	-	-	-
*C350	-	Band 5, R-f Oscillator Padding Capacitor	Mica, 70 mmfd ±2%, 250 volts d-c working	-	RE 13A 389K	-	4	Type "moulded silver cap"	K-7877485-P16
C351	-	Band 3, R-f Oscillator Trimming Capacitor	Same as C102	-	-	-	-	-	-
*C352	-	Band 4, R-f Oscillator Padding Capacitor	Same as C336	-	-	-	-	-	-
C353	-	Band 4, R-f Oscillator Capacitor	Same as C102	-	-	-	-	-	-

Δ Symbol part designation, if any.
⊤ Style or other applicable designation, if any.
* SPARE PARTS FURNISHED. Refer to Table III for quantities.

TABLE VI (CONT'D)

PARTS LIST BY SYMBOL DESIGNATIONS
FOR
NAVY MODEL RAX-1 AIRCRAFT RADIO RECEIVING EQUIPMENT
RADIO RECEIVER 7000-27,000 KC, NAVY TYPE CG-46117

SYMBOL DESIGNATION	Δ	FUNCTION	DESCRIPTION	NAVY TYPE DESIG.	NAVY DWG. OR SPEC. NUMBER	π	MFR.	MFR. DESIG.	CONTRACTOR'S DRAWING AND PART NUMBER
CAPACITORS (CONT'D)									
*C354	-	Band 5, R-f Oscillator Temperature Compensating Capacitor	Ceramicon, 5 mmfd ±10%, 500 volts d-c working, temperature co-efficient, 0.000680 mmf/mmf/deg C	-	-	-	5	Type N680K (modified)	K-7877141-P1
C355	-	Band 5, R-f Oscillator Trimming Capacitor	Same as C103	-	-	-	-	-	-
C356	-	Not Used	-	-	-	-	-	-	-
C357	-	Not Used	-	-	-	-	-	-	-
*C358	-	2nd R-f Grid Blocking Capacitor	Same as C171	CD-481015-D10	-	-	-	-	-
*C359	-	1st I-f Filament By-pass Capacitor	Same as C220	CD-48848-B10	-	-	-	-	-
*C360	-	1st I-f Plate By-pass Capacitor	Same as C111	CD-48847-B10	-	-	-	-	-
*C361	-	2nd I-f Grid Tuning Capacitor	Same as C338, included with T319	-	-	-	-	-	-
*C362	-	1st I-f Plate Tuning Capacitor	Same as C338, included with T319	-	-	-	-	-	-
*C363	-	AVC Filter Capacitor	Same as C220	CD-48848-B10	-	-	-	-	-
*C364	-	1st R-f Suppressor By-pass Capacitor	Same as C111	CD-48847-B10	-	-	-	-	-
*C365	-	1st I-f Cathode By-pass Capacitor	Same as C111	CD-48847-B10	-	-	-	-	-
C366	-	Not Used	-	-	-	-	-	-	-
*C367	-	Power Supply Filter Capacitor	Same as C111	CD-48847-B10	-	-	-	-	-
*C368	-	Power Supply Filter Capacitor	Same as C160	-	-	-	-	-	-
C368	A	Power Supply Filter Capacitor	Included in C368	-	-	-	-	-	-
C368	B	Power Supply Filter Capacitor	Included in C368	-	-	-	-	-	-
C368	C	Power Supply Filter Capacitor	Included in C368	-	-	-	-	-	-
C369	-	Not Used	-	-	-	-	-	-	-
*C370	-	Power Input Filter Capacitor	Same as C220	CD-48848-B10	-	-	-	-	-
*C371	-	Cathode By-pass Capacitor	Same as C220	CD-48848-B10	-	-	-	-	-

Δ Symbol part designation, if any.
π Style or other applicable designation, if any.
* SPARE PARTS FURNISHED. Refer to Table III for quantities.

TABLE VI (CONT'D)

PARTS LIST BY SYMBOL DESIGNATIONS
FOR
NAVY MODEL RAX-1 AIRCRAFT RADIO RECEIVING EQUIPMENT
RADIO RECEIVER 7000-27,000 KC, NAVY TYPE CG-46117

SYMBOL DESIGNATION	Δ	FUNCTION	DESCRIPTION	NAVY TYPE DESIG.	NAVY DWG. OR SPEC. NUMBER	₸	MFR.	MFR. DESIG.	CONTRACTOR'S DRAWING AND PART NUMBER
			CAPACITORS (CONT'D)						
*C372	-	2nd I-f Screen By-pass Capacitor	Same as C111	CD-48847-B10	-	-	-	-	-
*C373	-	3rd I-f Cathode By-pass Capacitor	Same as C111	CD-48847-B10	-	-	-	-	-
*C374	-	Audio Cathode By-pass Capacitor	Same as C177	CD-48847-B10	-	-	-	-	-
*C375	-	BFO Cathode By-pass Capacitor	Same as C22C	CD-48848-B10	-	-	-	-	-
*C376	-	3rd I-f Screen By-pass Capacitor	Same as C111	CD-48847-B10	-	-	-	-	-
*C377	-	Audio Coupling Capacitor	Same as C220	CD-48848-B10	-	-	-	-	-
*C378	-	Audio Diode Filter Capacitor	Mica, 350 mmfd ±10%, 250 volts d-c working, included with T321	-	RE 13A 389K	-	4	Type "moulded silver cap"	K-7877485-P43
*C379	-	Audio Diode Filter Capacitor	Same as C378, included with T321	-	-	-	-	-	-
*C380	-	2nd I-f Plate By-pass Capacitor	Same as C111	CD-48847-B10	-	-	-	-	-
*C381	-	2nd I-f Plate Tuning Capacitor	Mica, 400 mmfd ±5%, 250 volts d-c working, included with T312	-	RE 13A 389K	-	4	Type "moulded silver cap"	K-7877485-P28
*C382	-	3rd I-f Grid Tuning Capacitor	Same as C338, included with T312	-	-	-	-	-	-
*C383	-	AVC Diode Blocking Capacitor	Same as C108	-	-	-	-	-	-
*C384	-	3rd I-f Plate Tuning Capacitor	Mica, 175 mmfd ±5%, 250 volts d-c working, included with T321	-	RE 13A 389K	-	4	Type "moulded silver cap"	K-7877485-P24
*C385	-	3rd I-f Plate Filter Capacitor	Same as C111	CD-48847-B10	-	-	-	-	-
*C386	-	Audio Diode Tuning Capacitor	Same as C150, included with T321	-	-	-	-	-	-
*C387	-	Plate By-pass Capacitor	Mica, 0.004 mfd ±10%, 300 volts d-c working	-	RE 13A 389K	-	1	Cat. No. 1RS	M-7464527-P25
*C388	-	Filament By-pass Capacitor (BFO Detector Tube)	Same as C111	CD-48847-B10	-	-	-	-	-
*C389	-	Diode Output Filter Capacitor	Same as C191	CD-48674-D10	-	-	-	-	-
*C390	-	3rd I-f Filament By-pass Capacitor	Same as C111	CD-48847-B10	-	-	-	-	-

Δ Symbol part designation, if any.
₸ Style or other applicable designation, if any.
* SPARE PARTS FURNISHED. Refer to Table III for quantities.

TABLE VI (CONT'D)

PARTS LIST BY SYMBOL DESIGNATIONS
FOR
NAVY MODEL RAX-1 AIRCRAFT RADIO RECEIVING EQUIPMENT
RADIO RECEIVER 7000-27,000 KC, NAVY TYPE CG-46117

SYMBOL DESIGNATION	Δ	FUNCTION	DESCRIPTION	NAVY TYPE DESIG.	NAVY DWG. OR SPEC. NUMBER	▼	MFR.	MFR. DESIG.	CONTRACTOR'S DRAWING AND PART NUMBER
			CAPACITORS (CONT'D)						
*C391	-	Band 1, R-f Oscillator Series Padding Capacitor	Mica, 690 mmfd ±0.5%, 250 volts d-c working	-	RE 13A 389K	-	4	Type "moulded silver cap"	K-7877485-P11
*C392	-	Band 2, R-f Oscillator Series Padding Capacitor	Mica, 1325 mmfd ±0.5%, 250 volts d-c working	-	RE 13A 389K	-	4	Type "moulded silver cap"	K-7877485-P8
*C393	-	2nd I-f Cathode By-pass Capacitor	Same as C111	CD-48847-B10	-	-	-	-	-
C394	-	Not Used		-	-	-	-	-	-
*C395	-	2nd I-f AVC Filter Capacitor	Same as C111, included with T319	CD-48847-B10	-	-	-	-	-
*C396	-	Antenna Ground Return Capacitor	Same as C108	CD-48895-D10	-	-	-	-	-
*C397	-	Band 3, Antenna Series Padding Capacitor	Mica, 1720 mmfd ±1%, 250 volts d-c working	-	RE 13A 389K	-	4	Type "moulded silver cap"	K-7877485-P5
*C398	-	Band 4, Antenna Series Padding Capacitor	Mica, 2450 mmfd ±1%, 250 volts d-c working	-	RE 13A 389K	-	4	Type "moulded silver cap"	K-7877485-P2
*C399	-	Band 3, 2nd R-f Series Padding Capacitor	Same as C397	-	-	-	-	-	-
*C400	-	Band 4, 2nd R-f Series Padding Capacitor	Mica, 2600 mmfd ±1%, 250 volts d-c working	-	RE 13A 389K	-	4	Type "moulded silver cap"	K-7877485-P1
*C401	-	Band 3, 1st R-f Series Padding Capacitor	Same as C397	-	-	-	-	-	-
*C402	-	Band 4, 1st R-f Series Padding Capacitor	Same as C400	-	-	-	-	-	-
*C403	-	1st R-f Grid Blocking Capacitor	Same as C171	-	-	-	-	-	-
C404	-	Not Used		-	-	-	-	-	-
*C405	-	Band 2, Antenna Padding Capacitor	Same as C246	-	-	-	-	-	-
*C406	-	Band 4, Antenna Padding Capacitor	Same as C140	-	-	-	-	-	-
*C407	-	Band 5, Antenna Padding Capacitor	Mica, 120 mmfd ±5%, 250 volts d-c working	-	RE 13A 389K	-	4	Type "moulded silver cap"	K-7877485-P23
*C408	-	Band 2, 1st R-f Padding Capacitor	Same as C246	-	-	-	-	-	-
*C409	-	Band 4, 1st R-f Padding Capacitor	Same as C319	-	-	-	-	-	-
*C410	-	Band 5, 1st R-f Padding Capacitor	Mica, 75 mmfd ±5%, 250 volts d-c working	-	RE 13A 389K	-	4	Type "moulded silver cap"	K-7877485-P22

Δ Symbol part designation, if any.
▼ Style or other applicable designation, if any.
* SPARE PARTS FURNISHED. Refer to Table III for quantities.

TABLE VI (CONT'D)

PARTS LIST BY SYMBOL DESIGNATIONS
FOR
NAVY MODEL RAX-1 AIRCRAFT RADIO RECEIVING EQUIPMENT
RADIO RECEIVER 7000-27,000 KC, NAVY TYPE CG-46117

SYMBOL DESIGNATION	Δ	FUNCTION	DESCRIPTION	NAVY TYPE DESIG.	NAVY DWG. OR SPEC. NUMBER	╤	MFR.	MFR. DESIG.	CONTRACTOR'S DRAWING AND PART NUMBER
			CAPACITORS (CONT'D)						
*C411	-	Band 2, 2nd R-f Padding Capacitor	Same as C246	-	-	-	-	-	-
*C412	-	Band 4, 2nd R-f Padding Capacitor	Same as C319	-	-	-	-	-	-
*C413	-	Band 5, 2nd R-f Padding Capacitor	Same as C410	-	-	-	-	-	-
*C414	-	Audio Screen By-pass Capacitor	Same as C10b	-	-	-	-	-	-
*C415	-	Band 2, 1st R-f Primary Loading Capacitor	Mica, 10 mmfd ±5%, 250 volts d-c working	-	RE 13A 389K	-	4	Type "moulded silver cap"	K-7877485-P19
*C416	-	Band 2, 2nd R-f Primary Loading Capacitor	Same as C415	-	-	-	-	-	-
*C417	-	Audio Cathode Filter Capacitor	Same as C218	CD-48848-B10	-	-	-	-	-
*C418	-	Power Input Filter Capacitor	Same as C220	CD-48848-B10	-	-	-	-	-
*C419	-	Audio Filter Tuning Capacitor	Same as C220	CD-48848-B10	-	-	-	-	-
*C420	-	Audio Cathode Filter Capacitor	Same as C218	-	-	-	-	-	-
C421	-	Not Used		-	-	-	-	-	-
*C422	-	BFO Plate Filter Capacitor	Same as C220	CD-48848-B10	-	-	-	-	-
			DYNAMOTORS						
D301	-	Dynamotor	Same as D101	-	-	-	-	-	-
			FUSES						
*F301	-	Power Input Fuse	Same as F101	-	-	-	-	-	-
			JACKS						
J301	-	Phone Jack	Same as J101	-	-	-	-	-	-
			R-F CHOKE COILS AND REACTORS						
L301 to L305 Incl	-	Not Used		-	-	-	-	-	-

Δ Symbol part designation, if any.
╤ Style or other applicable designation, if any.
* SPARE PARTS FURNISHED. Refer to Table III for quantities.

TABLE VI (CONT'D)

PARTS LIST BY SYMBOL DESIGNATIONS
FOR
NAVY MODEL RAX-1 AIRCRAFT RADIO RECEIVING EQUIPMENT
RADIO RECEIVER 7000-27,000 KC, NAVY TYPE CG-46117

SYMBOL DESIGNATION	Δ	FUNCTION	DESCRIPTION	NAVY TYPE DESIG.	NAVY DWG. OR SPEC. NUMBER	╥	MFR.	MFR. DESIG.	CONTRACTOR'S DRAWING AND PART NUMBER
			R-F CHOKE COILS AND REACTORS (CONT'D)						
*L306	-	Power Supply R-f Choke Coil	Same as L103	-	-	-	-	-	-
*L307	-	Power Supply Reactor	Same as L104	-	-	-	-	-	-
*L308	-	Power Input R-f Choke Coil	Same as L105	-	-	-	-	-	-
L309	-	Not Used	-	-	-	-	-	-	-
L310	-	Not Used	-	-	-	-	-	-	-
L311	-	Not Used	-	-	-	-	-	-	-
*L312	-	R-f Oscillator Plate Choke Coil	Consists of 200 turns ES wire, Universal wound, 2 crosses per turn, on 1/4-in. compound coil form, 1300 microhenries (approx)	-	-	-	4	-	K-7877552-P1
L313	-	Not Used	-	-	-	-	-	-	-
*L314	-	Power Input R-f Choke Coil	Same as L108	-	-	-	-	-	-
*L315	-	Audio Cathode Filter Reactor	Same as L210	-	-	-	-	-	-
			PLUGS						
P301	-	Power Plug	Same as P101	-	-	-	-	-	-
			RESISTORS						
R301	-	Not Used	-	-	-	-	-	-	-
*R302	-	1st R-f Cathode Resistor	Composition, 220 ohms ±10%, 1/2 watt	CBZ-63360	RE 13A 372G	-	8	Type EB	P-7763599-P54
*R303	-	Converter Plate Filter Resistor	Same as R205	CBZ-63360	-	-	-	-	-
*R304	-	1st R-f Screen Filter Resistor	Same as R109	CBZ-63360	-	-	-	-	-
*R305	-	1st R-f Plate Filter Resistor	Same as R205	CBZ-63360	-	-	-	-	-
*R306	-	2nd R-f Grid Resistor	Same as R159	CBZ-63360	-	-	-	-	-
*R307	-	2nd R-f Cathode Bias Resistor	Same as R302	-	-	-	-	-	-
*R308	-	2nd R-f Gain Equalizing Potentiometer	Total resistance, 2500 ohms ±10%	-	-	-	8	Bradleyometer Type J	M-7464322-P2
*R309	-	2nd R-f Screen Resistor	Same as R109	CBZ-63360	-	-	-	-	-
*R310	-	AVC Diode Delay Resistor	Composition, 47,000 ohms ±10%, 1 watt	CBZ-63288	RE 13A 372G	-	8	Type GB	P-7763600-P82

Δ Symbol part designation, if any.
╥ Style or other applicable designation, if any.
* SPARE PARTS FURNISHED. Refer to Table III for quantities.

TABLE VI (CONT'D)

PARTS LIST BY SYMBOL DESIGNATIONS
FOR
NAVY MODEL RAX-1 AIRCRAFT RADIO RECEIVING EQUIPMENT
RADIO RECEIVER 7000-27,000 KC, NAVY TYPE CG-46117

SYMBOL DESIGNATION	Δ	FUNCTION	DESCRIPTION	NAVY TYPE DESIG.	NAVY DWG. OR SPEC. NUMBER	⫪	MFR.	MFR. DESIG.	CONTRACTOR'S DRAWING AND PART NUMBER
			RESISTORS (CONT'D)						
*R311	-	2nd R-f Plate Filter Resistor	Same as R205	CBZ-63360	-	-	-	-	-
*R312	-	Converter Grid Resistor	Same as ~~R159~~ R164	CBZ-63360	-	-	-	-	-
*R313	-	Converter Cathode Resistor	Same as R169	CBZ-63360	-	-	-	-	-
*R314	-	R-f Oscillator Plate Resistor	Same as R107	CBZ-63360	-	-	-	-	-
*R315	-	Converter Screen Resistor	Composition, 8200 ohms ±5%, 1 watt	CBZ-63291	RE 13A 372G	-	8	Type GB	P-7763600-P181
*R316	-	R-f Oscillator Grid Resistor	Same as R128	CBZ-63360	-	-	-	-	-
*R317	-	1st I-f AVC Filter Resistor	Same as R164, included with T311	CBZ-63360	-	-	-	-	-
R318	-	Not Used	-	-	-	-	-	-	-
R319	-	Not Used	-	-	-	-	-	-	-
*R320	-	Audio Cathode Resistor	Same as R177	CBZ-63291	-	-	-	-	-
*R321	-	AVC Diode Relay Resistor	Same as R230	CBZ-63355	-	-	-	-	-
*R322	-	AVC Filter Resistor	Same as R103	CBZ-63360	-	-	-	-	-
*R323	-	1st I-f Cathode Resistor	Composition, 560 ohms ±10%, 1/2 watt	CBZ-63360	RE 13A 372G	-	8	Type EB	P-7763599-P59
*R324	-	Cathode Delay Resistor	Composition, 9100 ohms ±5%, 1 watt	CBZ-63355	RE 13A 372G	-	8	Type EB	P-7763599-P182
R325	-	Not Used	-	-	-	-	-	-	-
*R326	-	Volume Control Gang Potentiometer	Same as R228	-	-	-	-	-	-
R326	A	MVC Section of Potentiometer	Same as R228A except included in R326	-	-	-	-	-	-
R326	B	AVC Section of Potentiometer	Same as R228 except included in R326	-	-	-	-	-	-
R327	-	Not Used	-	-	-	-	-	-	-
*R328	-	Screen Supply Bleeder Resistor	Composition, 2700 ohms ±5%, 1 watt	CBZ-63291	RE 13A 372G	-	8	Type GB	P-7763600-P169
*R329	-	3rd I-f Cathode Resistor	Same as R169	CBZ-63360	-	-	-	-	-
*R330	-	AVC Diode Load Resistor	Same as R159	CBZ-63360	-	-	-	-	-
*R331	-	1st R-f Grid Resistor	Same as R159	CBZ-63360	-	-	-	-	-
*R332	-	3rd I-f Screen Resistor	Composition, 18,000 ohms ±10%, 1/2 watt	CBZ-63360	RE 13A 372G	-	8	Type EB	P-7763599-P77
*R333	-	I-f Plate Filter Resistor	Same as R203	CBZ-63360	-	-	-	-	-
*R334	-	Audio Diode Load Resistor	Same as R165	CBZ-63360	-	-	-	-	-
R335	-	Not Used	-	-	-	-	-	-	-
*R336	-	Audio Diode Filter Resistor	Same as R216, included with T321	CBZ-63355	-	-	-	-	-

Δ Symbol part designation, if any.
⫪ Style or other applicable designation, if any.
* SPARE PARTS FURNISHED. Refer to Table III for quantities.

TABLE VI (CONT'D)

PARTS LIST BY SYMBOL DESIGNATIONS
FOR
NAVY MODEL RAX-1 AIRCRAFT RADIO RECEIVING EQUIPMENT
RADIO RECEIVER 7000-27,000 KC, NAVY TYPE CG-46117

SYMBOL DESIGNATION	Δ	FUNCTION	DESCRIPTION	NAVY TYPE DESIG.	NAVY DWG. OR SPEC. NUMBER	▼	MFR.	MFR. DESIG.	CONTRACTOR'S DRAWING AND PART NUMBER
			RESISTORS (CONT'D)						
*R337	-	3rd I-f Plate Filter Resistor	Same as R203	CBZ-63360	-	-	-	-	-
*R338	-	BFO Plate Resistor	Same as R107	CBZ-63360	-	-	-	-	-
*R339	-	BFO Grid Resistor	Composition, 150,000 ohms ±5%, 1/2 watt, included with T312	CBZ-63355	RE 13A 372G	-	8	Type EB	P-7763599-P211
*R340	-	2nd I-f Cathode Resistor	Same as R109	CBZ-63360	-	-	-	-	-
*R341	-	2nd I-f Grid Filter Resistor	Same as R164, included with T319	CBZ-63360	-	-	-	-	-
*R342	-	Screen Supply Bleeder Resistor	Composition, 33,000 ohms ±10%, 1 watt	CBZ-63288	RE 13A 372G	-	8	Type GB	P-7763600-P80
*R343	-	2nd I-f Cathode Resistor	Same as R130	CBZ-63360	-	-	-	-	-
*R344	-	Screen Supply Bleeder Resistor	Composition, 2700 ohms ±10%, 1 watt	CBZ-63288	RE 13A 372G	-	8	Type GB	P-7763600-P67
*R345	-	Band 1, 2nd R-f Gain Equalizing Resistor	Same as R109	CBZ-63360	-	-	-	-	-
*R346	-	MVC Bias Bleeder Resistor	Composition, 68,000 ohms ±10%, 1/2 watt	CBZ-63360	RE 13A 372G	-	8	Type EB	P-7763599-P84
*R347	-	Audio Diode Filter Resistor	Same as R234	CBZ-63355	-	-	-	-	-
*R348	-	BFO Plate Filter Resistor	Same as R205	CBZ-63360	-	-	-	-	-
*R349	-	1st I-f Cathode Resistor	Same as R109	CBZ-63360	-	-	-	-	-
			SWITCHES						
S301	-	Antenna Band Switch	Rotary tap switch, 5 position, 3 bank	-	-	-	9	Type RMC	M-7464376-P4
S301	A	Antenna Band Switch	Included in S301	-	-	-	-	-	-
S301	B	Antenna Band Switch	Included in S301	-	-	-	-	-	-
S301	C	Antenna Band Switch	Included in S301	-	-	-	-	-	-
S302	-	AVC-MVC Switch	Same as S102	-	-	-	-	-	-
S302	A	AVC-MVC Switch	Included in S302	-	-	-	-	-	-
S302	B	AVC-MVC Switch	Included in S302	-	-	-	-	-	-
S302	C	AVC-MVC Switch	Included in S302	-	-	-	-	-	-
S303	-	CW-Off-MCW Switch	Same as S103	-	-	-	-	-	-
S303	A	CW-Off-MCW Switch	Included in S303	-	-	-	-	-	-
S303	B	CW-Off-MCW Switch	Included in S303	-	-	-	-	-	-
S304	-	Not Used	-	-	-	-	-	-	-
S305	-	1st R-f Band Switch	Same as S301	-	-	-	-	-	-
S305	A	1st R-f Band Switch	Included in S305	-	-	-	-	-	-

Δ Symbol part designation, if any.
▼ Style or other applicable designation, if any.
* SPARE PARTS FURNISHED. Refer to Table III for quantities.

TABLE VI (CONT'D)

PARTS LIST BY SYMBOL DESIGNATIONS
FOR
NAVY MODEL RAX-1 AIRCRAFT RADIO RECEIVING EQUIPMENT
RADIO RECEIVER 7000-27,000 KC, NAVY TYPE CG-46117

SYMBOL DESIGNATION	Δ	FUNCTION	DESCRIPTION	NAVY TYPE DESIG.	NAVY DWG. OR SPEC. NUMBER	╥	MFR.	MFR. DESIG.	CONTRACTOR'S DRAWING AND PART NUMBER
			SWITCHES (CONT'D)						
S305	B	1st R-f Band Switch	Included in S305	-	-	-	-	-	-
S305	C	1st R-f Band Switch	Included in S305	-	-	-	-	-	-
S306	-	2nd R-f Band Switch	Same as S301	-	-	-	-	-	-
S306	A	2nd R-f Band Switch	Included in S306	-	-	-	-	-	-
S306	B	2nd R-f Band Switch	Included in S306	-	-	-	-	-	-
S307	-	R-f Oscillator Band Switch	Rotary tap switch, 5 position, 4 bank	-	-	-	9	Type RMC	M-7464376-P2
S307	A	R-f Oscillator Band Switch	Included in S307	-	-	-	-	-	-
S307	B	R-f Oscillator Band Switch	Included in S307	-	-	-	-	-	-
S307	C	R-f Oscillator Band Switch	Included in S307	-	-	-	-	-	-
S307	D	R-f Oscillator Band Switch	Included in S307	-	-	-	-	-	-
S308	-	Selecting Switch	Rotary tap switch, 3 position, single bank	-	-	-	9	-	M-7463887-P4
			TRANSFORMERS						
T301	-	Band 1, Antenna Transformer	Primary, 11 1/2 turns ES wire, close wound, 2.1 microhenries (approx) Secondary, 20 1/4 turns E wire, 2.9 microhenries (approx) Mutual inductance 0.5 microhenries (approx)	-	-	-	4	-	K-7877378
T302	-	Antenna Transformer	Primary, 5 1/2 turns ES wire, close wound; 3 1/2 turns ES wire, 0.7 microhenries (approx), 0.4 microhenries (approx) Secondary, 9 3/4 turns E wire; 8 1/4 turns E wire; 1.1 microhenries (approx); 0.9 microhenries (approx)	-	-	-	4	-	K-7877379
T302	A	Band 2, Antenna Transformer	Included in T302	-	-	-	-	-	-
T302	B	Band 3, Antenna Transformer	Included in T302	-	-	-	-	-	-
T303	-	Not Used	-	-	-	-	-	-	-
T304	-	Band 4, Antenna Transformer	Primary, 3 1/2 turns ES wire, close wound, 0.4 microhenries (approx) Secondary, 5 turns E wire, 0.4 microhenries (approx)	-	-	-	4	-	K-7877380

Δ Symbol part designation, if any.
╥ Style or other applicable designation, if any.

TABLE VI (CONT'D)

PARTS LIST BY SYMBOL DESIGNATIONS
FOR
NAVY MODEL RAX-1 AIRCRAFT RADIO RECEIVING EQUIPMENT
RADIO RECEIVER 7000-27,000 KC, NAVY TYPE CG-46117

SYMBOL DESIGNATION	Δ	FUNCTION	DESCRIPTION	NAVY TYPE DESIG.	NAVY DWG. OR SPEC. NUMBER	ᴨ	MFR.	MFR. DESIG.	CONTRACTOR'S DRAWING AND PART NUMBER
			TRANSFORMERS (CONT'D)						
T305	-	Band 5, Antenna Transformer	Primary, 2 1/4 turns ES wire, close wound Secondary, 3 3/8 turns E wire	-	-	-	4	-	K-7877381
T306	-	Band 1, 1st R-f Transformer	Primary, 43 1/2 turns ES wire, Universal wound, 39.1 microhenries (approx) Secondary, 19 1/2 turns E wire, 3.0 microhenries (approx) Mutual inductance 0.8 microhenries (approx)	-	-	-	4	-	K-7877382
T307	-	1st R-f Transformer	Primary, 30 1/2 turns ES wire, Universal wound; 5 3/8 turns EDS wire, close wound, 19.6 microhenries (approx), 0.8 microhenries (approx) Secondary, 10 1/3 turns E wire; 8 1/8 turns E wire; 1.3 microhenries (approx), 0.9 microhenries (approx)	-	-	-	4	-	K-7877383
T307	A	Band 2, R-f Transformer	Included in T307	-	-	-	-	-	-
T307	B	Band 3, R-f Transformer	Included in T307	-	-	-	-	-	-
T308	-	Not Used	-	-	-	-	-	-	-
T309	-	Band 4, 1st R-f Transformer	Primary, 4 1/2 turns EDS wire, close wound, 0.6 microhenries (approx) Secondary, 5 turns E wire, 0.4 microhenries (approx)	-	-	-	4	-	K-7877384
T310	-	Band 5, 1st R-f Transformer	3 3/4 turns E wire, wound on grooved form	-	-	-	4	-	K-7877385
T311	-	1st I-f Transformer	Primary, 33 turns ES wire, 9.1 microhenries ±1% Secondary, 33 turns ES wire, 9.1 microhenries ±1% Includes C338, C339, C345, R317	-	-	-	4	-	P-7763107-G1
T312	-	Beat Oscillator Transformer - 3rd I-f Transformer	Primary, 39 turns ES wire, 11.0 microhenries ±1% Secondary, 33 turns ES wire, 9.2 microhenries ±1% Includes C340, C341, C344, C343, C381, C382, C342, R339	-	-	-	4	-	P-7763109-G1

Δ Symbol part designation, if any.
ᴨ Style or other applicable designation, if any.

TABLE VI (CONT'D)

PARTS LIST BY SYMBOL DESIGNATIONS
FOR
NAVY MODEL RAX-1 AIRCRAFT RADIO RECEIVING EQUIPMENT
RADIO RECEIVER 7000-27,000 KC, NAVY TYPE CG-46117

SYMBOL DESIGNATION	Δ	FUNCTION	DESCRIPTION	NAVY TYPE DESIG.	NAVY DWG. OR SPEC. NUMBER	⊤	MFR.	MFR. DESIG.	CONTRACTOR'S DRAWING AND PART NUMBER
			TRANSFORMERS (CONT'D)						
T313	-	Not Used	-	-	-	-	-	-	-
T314	-	Band 1, R-f Oscillator Transformer	Primary, 5 1/2 turns EDS wire, close wound, 0.9 microhenries (approx) Secondary, 11 1/2 turns E wire, 2.0 microhenries (approx)	-	-	-	4	-	K-7877390
T315	-	Band 2, R-f Oscillator Transformer	Primary, 5 1/8 turns EDS wire, 0.9 microhenries (approx) Secondary, 7 1/4 turns E wire, 0.9 microhenries (approx)	-	-	-	4	-	K-7877391
T316	-	Band 3, R-f Oscillator Transformer	Primary, 5 turns EDS wire, close wound, 0.7 microhenries (approx) Secondary, 8 5/6 turns E wire, 1.3 microhenries (approx)	-	-	-	4	-	K-7877392
T317	-	Band 4, R-f Oscillator Transformer	Primary, 6 1/4 turns ES wire, close tension wound, 0.7 microhenries (approx) Secondary, 6 3/4 turns E wire, 0.5 microhenries (approx)	-	-	-	4	-	K-7877393
T318	-	Band 5, R-f Oscillator Transformer	Primary, 5 1/4 turns EDS wire, close tension wound, 0.5 microhenries (approx) Secondary, 4 1/4 turns E wire, 0.2 microhenries (approx)	-	-	-	4	-	K-7877394
T319	-	2nd I-f Transformer	Primary, 36 turns ES wire Secondary, 36 turns ES wire Includes C361, C362, C395, R341	-	-	-	4	-	K-7763108-G1
T320	-	Not Used	-	-	-	-	-	-	-
T321	-	4th I-f Transformer	Primary, 45 turns ES wire, 17.7 microhenries $\pm 1\%$ Secondary, 60 turns ES wire, 28.9 microhenries $\pm 1\%$ Includes C378, C379, C384, C386, R336	-	-	-	4	-	P-7763110-G1
*T322	-	Output Transformers	Same as T117	-	-	-	-	-	-
T323	-	Not Used	-	-	-	-	-	-	-

Δ Symbol part designation, if any.
⊤ Style or other applicable designation, if any.
* SPARE PARTS FURNISHED. Refer to Table III for quantities.

TABLE VI (CONT'D)

PARTS LIST BY SYMBOL DESIGNATIONS
FOR
NAVY MODEL RAX-1 AIRCRAFT RADIO RECEIVING EQUIPMENT
RADIO RECEIVER 7000-27,000 KC, NAVY TYPE CG-46117

SYMBOL DESIGNATION	Δ	FUNCTION	DESCRIPTION	NAVY TYPE DESIG.	NAVY DWG. OR SPEC. NUMBER	▼	MFR.	MFR. DESIG.	CONTRACTOR'S DRAWING AND PART NUMBER
			TRANSFORMERS (CONT'D)						
T324	-	Band 1, 2nd R-f Transformer	Primary, 43 1/2 turns ES wire, Universal wound, 39.1 microhenries (approx) Secondary, 19 1/2 turns E wire, 2.9 microhenries (approx) Mutual inductance 0.4 microhenries (approx)	-	-	-	4	-	K-7877386
T325	-	2nd R-f Transformer	Primary, 30 1/2 turns ES wire, Universal wound; 4 3/8 turns EDS wire, close wound; 20.1 microhenries (approx), 0.6 microhenries (approx) Secondary, 10 1/3 turns E wire, 8 1/8 turns E wire; 1.3 microhenries (approx), 0.9 microhenries (approx)	-	-	-	4	-	K-7877387
T325	A	Band 2, 2nd R-f Transformer	Included in T325	-	-	-	-	-	-
T325	B	Band 3, 2nd R-f Transformer	Included in T325	-	-	-	-	-	-
T326	-	Not Used	-	-	-	-	-	-	-
T327	-	Band 4, 2nd R-f Transformer	Primary, 5 1/2 turns EDS wire, close wound, 0.8 microhenries (approx) Secondary, 5 turns E wire, 0.4 microhenries (approx)	-	-	-	4	-	K-7877388
T328	-	Band 5, 2nd R-f Transformer	3 3/4 turns E wire, wound on grooved form	-	-	-	4	-	K-7877389
			VACUUM TUBES						
*V301	-	1st R-f Amplifier Tube	Same as V101	CRC-12SK7	-	-	-	-	-
*V302	-	Converter Tube	Same as V102	CRC-12SK8	-	-	-	-	-
*V303	-	1st I-f Amplifier Tube	Same as V101	CRC-12SK7	-	-	-	-	-
*V304	-	2nd I-f Amplifier Tube	Same as V101	CRC-12SK7	-	-	-	-	-
*V305	-	3rd I-f Amplifier Tube	Same as V101	CRC-12SK7	-	-	-	-	-
*V306	-	Audio Amplifier Tube	Same as V105	CRC-12A6	-	-	-	-	-
*V307	-	BFO 2nd Detector Tube	Same as V106	CRC-12SR7	-	-	-	-	-
*V308	-	2nd R-f Amplifier Tube	Same as V101	CRC-12SK7	-	-	-	-	-
*V309	-	Input Voltage Limiter Glow Tube	Same as V107	-	-	-	-	-	-

Δ Symbol part designation, if any.
▼ Style or other applicable designation, if any.
* SPARE PARTS FURNISHED. Refer to Table III for quantities.

TABLE VI (CONT'D)

PARTS LIST BY SYMBOL DESIGNATIONS
FOR
NAVY MODEL RAX-1 AIRCRAFT RADIO RECEIVING EQUIPMENT
RADIO RECEIVER 7000-27,000 KC, NAVY TYPE CG-46117

SYMBOL DESIGNATION	Δ	FUNCTION	DESCRIPTION	NAVY TYPE DESIG.	NAVY DWG. OR SPEC. NUMBER	π	MFR.	MFR. DESIG.	CONTRACTOR'S DRAWING AND PART NUMBER
			VACUUM TUBE SOCKETS						
X301	-	1st R-f Tube Socket	Same as X101	CPH-49373	-	-	-	-	-
X302	-	Converter Tube Socket	Same as X101	CPH-49373	-	-	-	-	-
X303	-	1st I-f Tube Socket	Same as X101	CPH-49373	-	-	-	-	-
X304	-	2nd I-f Tube Socket	Same as X101	CPH-49373	-	-	-	-	-
X305	-	3rd I-f Tube Socket	Same as X101	CPH-49373	-	-	-	-	-
X306	-	Audio Tube Socket	Same as X101	CPH-49373	-	-	-	-	-
X307	-	2nd R-f Detector Tube Socket	Same as X101	CPH-49373	-	-	-	-	-
X308	-	2nd R-f Tube Socket	Same as X101	CPH-49373	-	-	-	-	-

Δ Symbol part designation, if any.
π Style or other applicable designation, if any.

TABLE VI (CONT'D)

PARTS LIST BY SYMBOL DESIGNATIONS
FOR
NAVY MODEL RAX-1 AIRCRAFT RADIO RECEIVING EQUIPMENT
JUNCTION BOX, NAVY TYPE CG-62028

SYMBOL DESIGNATION	Δ	FUNCTION	DESCRIPTION	NAVY TYPE DESIG.	NAVY DWG. OR SPEC. NUMBER	╥	MFR	MFR. DESIG.	CONTRACTOR'S DRAWING AND PART NUMBER
			JACKS AND RECEPTACLES						
J501	-	Phone Jack	Same as J101	-	-	-	-	-	-
J502	-	Phone Jack	Same as J101	-	-	-	-	-	-
J503	-	Phone Jack	Same as J101	-	-	-	-	-	-
J504	-	Phone Jack	Same as J101	-	-	-	-	-	-
J505	-	Power Receptacle	Same as P101	-	-	-	-	-	-
J506	-	Power Receptacle	Same as P101	-	-	-	-	-	-
J507	-	Power Receptacle	Same as P101	-	-	-	-	-	-
J508	-	Power Receptacle	Same as P101	-	-	-	-	-	-

Δ Symbol part designation, if any.
╥ Style or other applicable designation, if any.

TABLE VI (CONT'D)

PARTS LIST BY SYMBOL DESIGNATIONS
FOR
NAVY MODEL RAX-1 AIRCRAFT RADIO RECEIVING EQUIPMENT
RECEIVER RACK, NAVY TYPE CG-46128

SYMBOL DESIGNATION	Δ	FUNCTION	DESCRIPTION	NAVY TYPE DESIG.	NAVY DWG. OR SPEC. NUMBER	▼	MFR.	MFR. DESIG.	CONTRACTOR'S DRAWING AND PART NUMBER
			JACKS AND RECEPTACLES						
J601	-	Not Used	-	-	-	-	-	-	-
J602	-	Not Used	-	-	-	-	-	-	-
J603	-	Power Receptacle	4 contact	-	-	-	12	Cat.No. CK-C4-32S Var. No. 1 (modified)	K-7876934-P1
J604 to J607 Incl	-	Not Used	-	-	-	-	-	-	-
J608	-	Power Receptacle	Disconnect, 4 pin, insulated	-	-	-	12	Part GK-C4-21P Var. No. 1	K-7876946
J609	-	Phone Jack	Same as J101	-	-	-	-	-	-
J610	-	Phone Jack	Same as J101	-	-	-	-	-	-
			SWITCHES						
S601 to S603 Incl	-	Not Used	-	-	-	-	-	-	-
S604	-	Output Switch	Spdt, 3 amp, 125 volts a-c	-	-	-	13	Cat. No. 7140 (modified)	K-7876947-P1

Δ Symbol part designation, if any.
▼ Style or other applicable designation, if any.

TABLE VI (CONT'D)

PARTS LIST BY SYMBOL DESIGNATIONS
FOR
NAVY MODEL RAX-1 AIRCRAFT RADIO RECEIVING EQUIPMENT
CABLES

SYMBOL DESIGNATION	Δ	FUNCTION	DESCRIPTION	NAVY TYPE DESIG.	NAVY DWG. OR SPEC. NUMBER	▼	MFR.	MFR. DESIG.	CONTRACTOR'S DRAWING AND PART NUMBER
J701	-	Not Used	-	-	-	-	-	-	-
P702	-	Power Cable Plug	4-pin plug, included in W703	-	-	-	12	Cat. No. GK-C4-21C-7/16"	K-7878738
P703	-	Power Cable Plug (3 used)	Same as P702 except included in W704, W705, W706	-	-	-	-	-	-
P704	-	Power Cable Plug (3 used)	Same as P702 except included in W704, W705, W706	-	-	-	-	-	-
H701	-	Coupling Nut	Included with W703	-	N.A.F. Pt.No. 213017-4	-	14	-	K-7878770-P1
H702	-	Ferrule	Included with W703	-	-	-	6	-	K-7878221-P1
W701	-	Not Used	-	-	-	-	-	-	-
W702	-	Cordage	4-conductor cable, included in W703, W704, W705, W706	-	-	-	15	-	K-7878804
W703	-	Power Cable	Includes P702, H701, H702, W702	-	-	-	6	-	M-7465168-P2
W704	-	Power Cable	Includes P703, P704, W702	-	-	-	6	-	M-7465168-P3
W705	-	Power Cable	Same as W704	-	-	-	-	-	-
W706	-	Power Cable	Same as W704	-	-	-	-	-	-

Δ Symbol part designation, if any.
▼ Style or other applicable designation, if any.

OPERATING SPARE PARTS FOR NAVY MODEL RAX-1 AIRCRAFT RADIO RECEIVING EQUIPMENT

Navy Type Number	Major Units	Symbol Group
CG-46115	Receiver (200-1500 kc)	101 to 199
CG-46116	Receiver (1500-9000 kc)	201 to 299 1201 to 1299
CG-46117	Receiver (7000-27,000 kc)	301 to 399
CG-46128	Receiver Rack	601 to 699
CG-62028	Junction Box	501 to 599
None	Cable M-7465168-P2 and 3	701 to 799

OPERATING SPARE PARTS
FOR
NAVY MODEL RAX-1 AIRCRAFT RADIO RECEIVING EQUIPMENT

SYMBOL NO.	ENVELOPE NO. OR BOX LETTER	QUANTITY	G.E. DRAWING AND PART NUMBER	DESCRIPTION
C106	2	1	K-7876779-P4	Paper, 0.05 mfd ±10%, 400 volts d-c working
C107	3	1	K-7876779-P1	Paper, 0.01 mfd ±10%, 600 volts d-c working
C108	4	1	M-7463969-P8	Mica, 0.00005 mfd ±10%, 500 volts d-c working
C110	5	1	M-7463969-P3	Mica, 0.00001 mfd ±10%, 500 volts d-c working
C111	6	1	P-7762455-P27	Mica, 0.006 mfd ±10%, 300 volts d-c working
C112	2	-	Same as C106	-
C117	7	1	K-7877485-P3	Mica, 2350 mmfd ±5%, 250 volts d-c working
C118	4	-	Same as C108	-
C119	1	1	M-7463969-P9	Mica, 0.00007 mfd ±10%, 500 volts d-c working
C120	1	-	Same as C119	-
C122	8	1	M-7463969-P5	Mica, 0.000025 mfd ±10%, 500 volts d-c working
C123	6	-	Same as C111	-
C124	9	1	M-7463969-P11	Mica, 0.00015 mfd ±10%, 500 volts d-c working
C125	2	-	Same as C106	-
C126	4	-	Same as C108	-
C132	10	1	K-7877141-P2	Ceramic, 15 mmfd ±5%, 500 volts d-c working
C134	11	1	K-7877485-P15	Mica, 500 mmfd ±10%, 250 volts d-c working
C135	12	1	K-7877485-P20	Mica, 30 mmfd ±5%, 250 volts d-c working
C136	10	-	Same as C132	-
C138	2	-	Same as C106	-
C139	11	-	Same as C134	-
C140	13	1	K-7877485-P17	Mica, 50 mmfd ±5%, 250 volts d-c working
C142	14	1	K-7877485-P10	Mica, 730 mmfd ±0.9%, 250 volts d-c working
C144	2	-	Same as C106	-
C145	2	-	Same as C106	-
C146	13	-	Same as C140	-
C147	15	1	K-7877485-P13	Mica, 600 mmfd ±0.5%, 250 volts d-c working
C148	16	1	K-7877485-P9	Mica, 1100 mmfd ±0.5%, 250 volts d-c working
C149	15	-	Same as C147	-
C150	17	1	K-7877485-P37	Mica, 100 mmfd ±5%, 250 volts d-c working
C151	2	-	Same as C106	-
C152	18	1	K-7877485-P39	Mica, 375 mmfd ±5%, 250 volts d-c working
C153	18	-	Same as C152	-
C154	6	-	Same as C111	-
C155	6	-	Same as C111	-
C157	3	-	Same as C107	-
C159	6	-	Same as C111	-
C160	A	1	K-7876911	Electrolytic, 3 - 16 mfd +75%, -10%, 250 volts d-working. Three separate sections.
C161	4	-	Same as C108	-
C162	15	-	Same as C147	-
C163	19	1	K-7877485-P30	Mica, 650 mmfd ±5%, 250 volts d-c working
C164	6	-	Same as C111	-
C165	20	1	K-7877485-P40	Mica, 370 mmfd ±5%, 250 volts d-c working
C166	21	1	K-7877485-P41	Mica, 900 mmfd ±5%, 250 volts d-c working
C167	6	-	Same as C111	-
C168	6	-	Same as C111	-
C169	2	-	Same as C106	-
C170	6	-	Same as C111	-
C171	22	1	M-7463969-P15	Mica, 0.0004 mfd ±10%, 500 volts d-c working
C172	23	1	M-7463969-P16	Mica, 0.0005 mfd ±10%, 500 volts d-c working
C173	B	1	M-7464514-P4	Paper, 0.5 mfd +10%, -3%, 600 volts d-c working
C176	C	1	M-7464514-P3	Paper, 0.25 mfd +10%, -3%, 600 volts d-c working
C177	D	1	K-7877210-P1	Electrolytic, 50 mfd +100%, -10%, 25 volts d-c working
C178	24	1	P-7762455-P25	Mica, 0.004 mfd ±10%, 300 volts d-c working
C179	6	-	Same as C111	-
C180	25	1	M-7464527-P23	Mica, 0.0025 mfd ±10%, 500 volts d-c working
C183	25	-	Same as C180	-
C184	E	1	K-7877443	Electrolytic, 25 mfd +100%, -10%, 50 volts d-c working
C191	26	1	M-7463969-P10	Mica, 0.0001 mfd ±10%, 500 volts d-c working

OPERATING SPARE PARTS (CONT'D)
FOR
NAVY MODEL RAX-1 AIRCRAFT RADIO RECEIVING EQUIPMENT

SYMBOL NO.	ENVELOPE NO. OR BOX LETTER	QUANTITY	G.E. DRAWING AND PART NUMBER	DESCRIPTION
C192	26	-	Same as C191	-
C193	7	-	Same as C117	-
C195	8	-	Same as C122	-
C196	8	-	Same as C122	-
C198	8	-	Same as C122	-
C199	9	-	Same as C124	-
C201	4	-	Same as C108	-
C205	26	-	Same as C191	-
C207	8	-	Same as C122	-
C210	6	-	Same as C111	-
C211	6	-	Same as C111	-
C212	6	-	Same as C111	-
C217	4	-	Same as C108	-
C218	27	1	M-7464874-P1	Mica, 9500 mmfd ±2.5%, 300 volts d-c working
C219	26	-	Same as C191	-
C220	28	1	P-7762455-P31	Mica, 0.01 mfd ±10%, 300 volts d-c working
C221	28	-	Same as C220	-
C222	D	-	Same as C177	-
C227	4	-	Same as C108	-
C228	28	-	Same as C220	-
C229	26	-	Same as C191	-
C230	6	-	Same as C111	-
C231	28	-	Same as C220	-
C232	6	-	Same as C111	-
C233	13	-	Same as C140	-
C234	23	-	Same as C172	-
C235	29	1	K-7877485-P38	Mica, 500 mmfd ±5%, 250 volts d-c working
C236	29	-	Same as C235	-
C237	6	-	Same as C111	-
C238	30	1	K-7877141-P3	Ceramic, 25 mmfd ±5%, 500 volts d-c working
C240	6	-	Same as C111	-
C242	28	-	Same as C220	-
C244	27	-	Same as C218	-
C246	31	1	K-7877485-P21	Mica, 40 mmfd ±5%, 250 volts d-c working
C247	2	-	Same as C106	-
C248	23	-	Same as C172	-
C249	13	-	Same as C140	-
C251	32	1	K-7877485-P32	Mica, 230 mmfd ±0.5%, 250 volts d-c working
C252	10	-	Same as C132	-
C253	6	-	Same as C111	-
C254	33	1	M-7463969-P4	Mica, 0.00002 mfd ±10%, 500 volts d-c working
C255	28	-	Same as C220	-
C256	F	1	K-7878242	Electrolytic, 12-12 mfd ±100%, -10%, 50 volts d-c working. Two separate sections.
C257	11	-	Same as C134	-
C258	11	-	Same as C134	-
C259	3	-	Same as C107	-
C260	28	-	Same as C220	-
C261	2	-	Same as C106	-
C262	6	-	Same as C111	-
C263	6	-	Same as C111	-
C264	A	-	Same as C160	-
C265	28	-	Same as C220	-
C266	6	-	Same as C111	-
C267	28	-	Same as C220	-
C268	11	-	Same as C134	-
C269	34	1	K-7877485-P29	Mica, 560 mmfd ±5%, 250 volts d-c working
C270	6	-	Same as C111	-
C271	6	-	Same as C111	-
C272	5	-	Same as C110	-
C273	28	-	Same as C220	-
C274	6	-	Same as C111	-

OPERATING SPARE PARTS (CONT'D)
FOR
NAVY MODEL RAX-1 AIRCRAFT RADIO RECEIVING EQUIPMENT

SYMBOL NO.	ENVELOPE NO. OR BOX LETTER	QUANTITY	G.E. DRAWING AND PART NUMBER	DESCRIPTION
C275	28	-	Same as C220	-
C276	35	1	M-7463969-P12	Mica, 0.0002 mfd ±10%, 500 volts d-c working
C277	26	-	Same as C191	-
C278	36	1	K-7877485-P18	Mica, 525 mmfd ±5%, 250 volts d-c working
C279	37	1	K-7877485-P25	Mica, 215 mmfd ±5%, 250 volts d-c working
C280	38	1	M-7463969-P14	Mica, 0.0003 mfd ±10%, 500 volts d-c working
C281	6	-	Same as C111	-
C282	39	1	P-7762455-P23	Mica, 0.0025 mfd ±10%, 500 volts d-c working
C283	5	-	Same as C110	-
C284	28	-	Same as C220	-
C285	5	-	Same as C110	-
C286	4	-	Same as C108	-
C287	26	-	Same as C191	-
C288	40	1	K-7877485-P12	Mica, 612 mmfd ±0.75%, 250 volts d-c working
C289	14	-	Same as C142	-
C290	41	1	K-7877485-P7	Mica, 1195 mmfd ±1.5%, 250 volts d-c working
C291	42	1	K-7877485-P6	Mica, 2390 mmfd ±5%, 250 volts d-c working
C292	6	-	Same as C111	-
C293	28	-	Same as C220	-
C295	26	-	Same as C191	-
C296	5	-	Same as C110	-
C297	42	-	Same as C291	-
C298	42	-	Same as C291	-
C299	33	-	Same as C254	-
C307	6	-	Same as C111	-
C311	6	-	Same as C111	-
C312	6	-	Same as C111	-
C313	6	-	Same as C111	-
C319	12	-	Same as C135	-
C321	F	-	Same as C256	-
C322	6	-	Same as C111	-
C323	6	-	Same as C111	-
C324	5	-	Same as C110	-
C330	22	-	Same as C171	-
C331	12	-	Same as C135	-
C333	6	-	Same as C111	-
C334	6	-	Same as C111	-
C335	6	-	Same as C111	-
C336	43	1	K-7877485-P14	Mica, 25 mmfd ±5%, 250 volts d-c working
C337	11	-	Same as C134	-
C338	44	1	K-7877485-P27	Mica, 300 mmfd ±5%, 250 volts d-c working
C339	44	-	Same as C338	-
C340	11	-	Same as C134	-
C341	43	-	Same as C336	-
C343	45	1	K-7877485-P42	Mica, 200 mmfd ±0.5%, 250 volts d-c working
C344	46	1	K-7877141-P5	Ceramic, 30 mmfd ±5%, 500 volts d-c working
C345	6	-	Same as C111	-
C346	47	1	K-7877141-P4	Ceramic, 26 mmfd ±5%, 500 volts d-c working
C348	31	-	Same as C246	-
C350	48	1	K-7877485-P16	Mica, 70 mmfd ±2.5%, 250 volts d-c working
C352	43	-	Same as C336	-
C354	49	1	K-7877141-P1	Ceramic, 5 mmfd ±10%, 500 volts d-c working
C358	22	-	Same as C171	-
C359	28	-	Same as C220	-
C360	6	-	Same as C111	-
C361	44	-	Same as C338	-
C362	44	-	Same as C338	-
C363	28	-	Same as C220	-
C364	6	-	Same as C111	-
C365	6		Same as C111	-
C367	6	-	Same as C111	-
C368	A	-	Same as C160	-

OPERATING SPARE PARTS (CONT'D)
FOR
NAVY MODEL RAX-1 AIRCRAFT RADIO RECEIVING EQUIPMENT

SYMBOL NO.	ENVELOPE NO. OR BOX LETTER	QUANTITY	G.E. DRAWING AND PART NUMBER	DESCRIPTION
C370	28	-	Same as C220	-
C371	28	-	Same as C220	-
C372	6	-	Same as C111	-
C373	6	-	Same as C111	-
C374	D	-	Same as C177	-
C375	28	-	Same as C220	-
C376	6	-	Same as C111	-
C377	28	-	Same as C220	-
C378	50	1	K-7877485-P43	Mica, 350 mmfd ±10%, 250 volts d-c working
C379	50	-	Same as C378	-
C380	6	-	Same as C111	-
C381	51	1	K-7877485-P28	Mica, 400 mmfd ±5%, 250 volts d-c working
C382	44	-	Same as C338	-
C383	4	-	Same as C108	-
C384	52	1	K-7877485-P24	Mica, 175 mmfd ±5%, 250 volts d-c working
C385	6	-	Same as C111	-
C386	17	-	Same as C150	-
C387	53	1	K-7464527-P25	Mica, 0.004 mfd ±10%, 300 volts d-c working
C388	6	-	Same as C111	-
C389	26	-	Same as C191	-
C390	6	-	Same as C111	-
C391	54	1	K-7877485-P11	Mica, 690 mmfd ±0.5%, 250 volts d-c working
C392	55	1	K-7877485-P8	Mica, 1325 mmfd ±0.5%, 250 volts d-c working
C393	6	-	Same as C111	-
C395	6	-	Same as C111	-
C396	4	-	Same as C108	-
C397	56	1	K-7877485-P5	Mica, 1720 mmfd ±1%, 250 volts d-c working
C398	57	1	K-7877485-P2	Mica, 2450 mmfd ±1%, 250 volts d-c working
C399	57	-	Same as C397	-
C400	58	1	K-7877485-P1	Mica, 2600 mmfd ±1%, 250 volts d-c working
C401	56	-	Same as C397	-
C402	58	-	Same as C400	-
C403	22	-	Same as C171	-
C405	31	-	Same as C246	-
C406	13	-	Same as C140	-
C407	59	1	K-7877485-P23	Mica, 120 mmfd ±5%, 250 volts d-c working
C408	31	-	Same as C246	-
C409	12	-	Same as C135	-
C410	60	1	K-7877485-P22	Mica, 75 mmfd ±5%, 250 volts d-c working
C411	31	-	Same as C246	-
C412	12	-	Same as C135	-
C413	60	-	Same as C410	-
C414	2	-	Same as C106	-
C415	61	1	K-7877485-P19	Mica, 10 mmfd ±5%, 250 volts d-c working
C416	61	-	Same as C415	-
C417	27	-	Same as C218	-
C418	28	-	Same as C220	-
C419	28	-	Same as C220	-
C420	27	-	Same as C218	-
C422	28	-	Same as C220	-
C1201	4	-	Same as C108	-
C1202	8	-	Same as C122	-
C1203	28	-	Same as C220	-
C1204	26	-	Same as C191	-
C1205	6	-	Same as C111	-
C1206	6	-	Same as C111	-
F101	62	12	K-7881566	4 amp "Littelfuse Laboratory"
F201	62	-	Same as F101	-
F301	62	-	Same as F101	-
L103	G	1	K-7877090	350 turns of No. 28 AWG, DSE copper wire Universal wound with 2 crosses per turn on a 3/8-in diam No. 2008-B comp. form. Inductance: 2 microhenries ±5%

OPERATING SPARE PARTS (CONT'D)
FOR
NAVY MODEL RAX-1 AIRCRAFT RADIO RECEIVING EQUIPMENT

SYMBOL NO.	ENVELOPE NO. OR BOX LETTER	QUANTITY	G.E. DRAWING AND PART NUMBER	DESCRIPTION
L104	H	1	K-7877075	0.5 henry, 0.082 amp d-c, 42 ohms d-c res. (Cat. No. 67G302)
L105	J	1	K-7877089	28 turns of No. 14 AWG double cotton covered copper wire. Seven layers Pyramid wound on a 3/8-in. diam No. 2008-B comp. form. Inductance: Approx 8.4 microhenries
L108	K	1	M-7464808-G1	50 turns of 0.025-in. bare 0.033-in. DCG copper wire Universal wound with 2 crosses per turn on a 1/2-in. diam Isolantite form
L109	L	1	K-7879066	2.48 henries, ±10%, 0.0075 amp d-c, 60 cycles (Cat. No. 67G794)
L205	G	-	Same as L103	-
L206	H	-	Same as L104	-
L207	J	-	Same as L105	-
L208	K	-	Same as L108	-
L210	M	1	P-7763160-G1	1350 turns of 0.0063-in. diam bare 0.009-in. diam ES copper wire Universal wound on a 0.560-in. diam No. 2029-B comp. form, tap at 675 turns (Crowley Type A1 slug)
L211	K	-	Same as L108	-
L306	G	-	Same as L103	-
L307	H	-	Same as L104	-
L308	J	-	Same as L105	-
L312	N	1	K-7877552	200 turns (total) No. 36 ES copper wire 2 crosses per turn (3 sections), Universal wound on a 1/4-in. diam No. 1841-B comp. form
L314	K	-	Same as L108	-
L315	M	-	Same as L210	-
R102	63	1	P-7763599-P86	100,000 ohms ±10%, 1/2 watt
R103	64	1	P-7763599-P98	1.0 megohm ±10%, 1/2 watt
R105	65	1	P-7763599-P156	750 ohms ±5%, 1/2 watt
R106	66	1	P-7763599-P78	22,000 ohms ±10%, 1/2 watt
R107	67	1	P-7763599-P75	12,000 ohms ±10%, 1/2 watt
R108	67	-	Same as R107	-
R109	68	1	P-7763599-P62	1000 ohms ±10%, 1/2 watt
R110	P	1	M-7464322-P1	Bradleyometer, 5000 ohms ±15%
R111	69	1	P-7763599-P63	1200 ohms ±10%, 1/2 watt
R126	70	1	P-7763599-P183	10,000 ohms ±5%, 1/2 watt
R127	71	1	P-7763599-P219	330,000 ohms ±5%, 1/2 watt
R128	72	1	P-7763599-P203	68,000 ohms ±5%, 1/2 watt
R129	73	1	P-7763599-P90	220,000 ohms ±10%, 1/2 watt
R130	74	1	P-7763599-P57	390 ohms ±10%, 1/2 watt
R131	75	1	P-7763599-P202	62,000 ohms ±5%, 1/2 watt
R132	67	-	Same as R107	-
R133	76	1	P-7763599-P88	150,000 ohms ±10%, 1/2 watt
R134	63	-	Same as R102	-
R151	65	-	Same as R105	-
R152	Q	1	M-7464321-P1	Bradleyometer, 20,000 ohms ±10% (panel) 800,000 ohms ±10% (rear)
R154	77	1	P-7763600-P203	68,000 ohms ±5%, 1 watt
R155	64	-	Same as R103	-
R157	78	1	P-7763600-P76	15,000 ohms ±10%, 1 watt
R158	68	-	Same as R107	-
R159	79	1	P-7763599-P94	470,000 ohms ±10%, 1/2 watt
R160	65	-	Same as R105	-
R161	80	1	P-7763599-P81	39,000 ohms ±10%, 1/2 watt
R162	81	1	P-7763599-P100	1.5 megohms ±10%, 1/2 watt
R163	65	-	Same as R105	-
R164	82	1	P-7763599-P82	47,000 ohms ±10%, 1/2 watt
R165	83	1	P-7763599-P92	330,000 ohms ±10%, 1/2 watt
R166	84	1	P-7763600-P194	30,000 ohms ±5%, 1 watt
R167	64	-	Same as R103	-

OPERATING SPARE PARTS (CONT'D)
FOR
NAVY MODEL RAX-1 AIRCRAFT RADIO RECEIVING EQUIPMENT

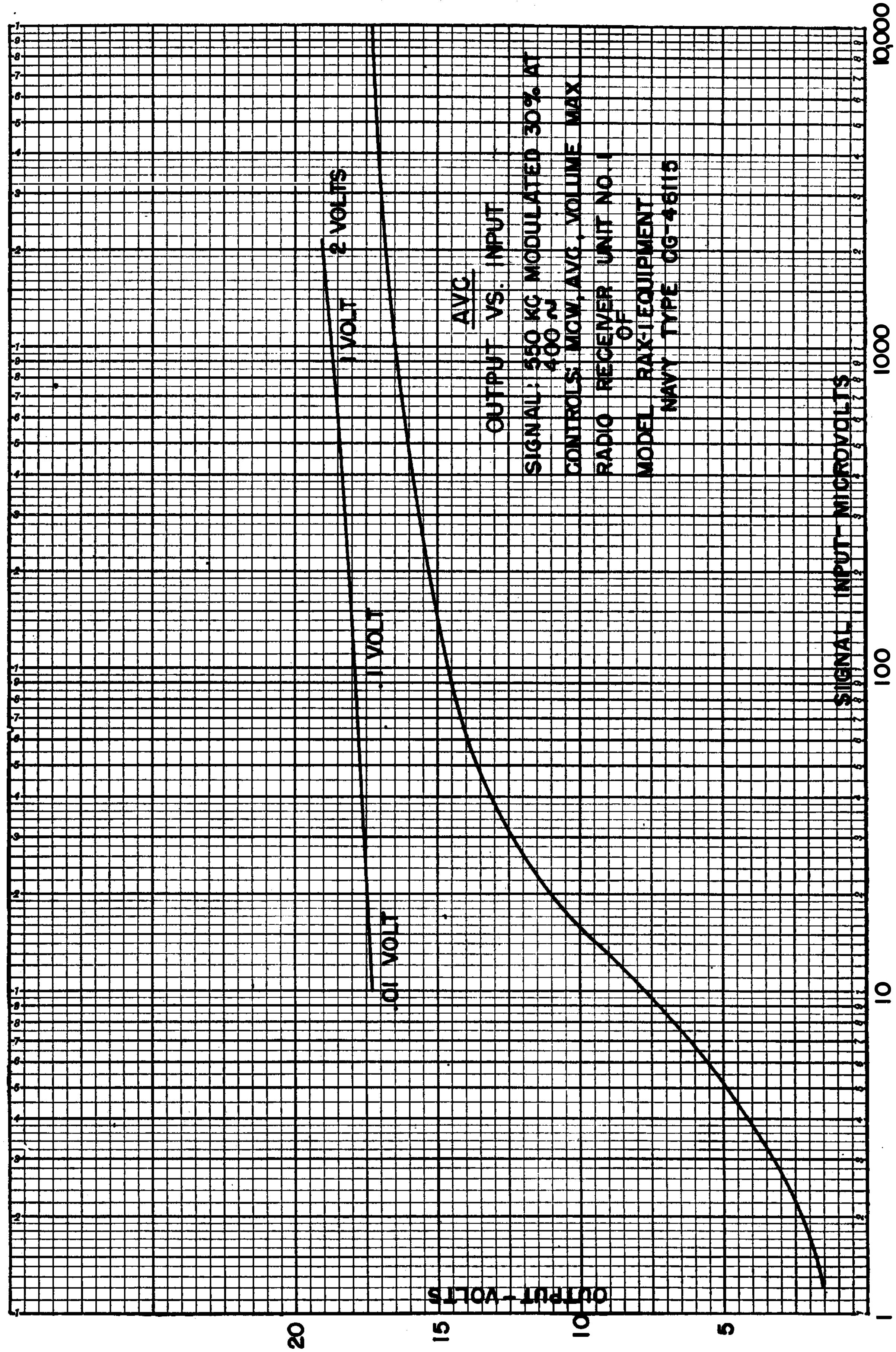
SYMBOL NO.	ENVELOPE NO. OR BOX LETTER	QUANTITY	G.E. DRAWING AND PART NUMBER	DESCRIPTION
R168	85	1	P-7763599-P152	510 ohms ±5%, 1/2 watt
R169	86	1	P-7763599-P56	330 ohms ±10%, 1/2 watt
R170	82	-	Same as R164	-
R177	87	1	P-7763600-P149	390 ohms ±5%, 1 watt
R178	85	-	Same as R168	-
R202	64	-	Same as R103	-
R203	88	1	P-7763599-P61	820 ohms ±10%, 1/2 watt
R204	89	1	P-7763599-P154	620 ohms ±5%, 1/2 watt
R205	90	1	P-7763599-P66	2200 ohms ±10%, 1/2 watt
R206	64	-	Same as R103	-
R207	91	1	P-7763599-P146	300 ohms ±5%, 1/2 watt
R208	92	1	P-7763599-P170	3000 ohms ±5%, 1/2 watt
R209	93	1	P-7763599-P161	1200 ohms ±5%, 1/2 watt
R210	87	-	Same as R177	-
R211	90	-	Same as R205	-
R212	64	-	Same as R103	-
R213	94	1	P-7763599-P147	330 ohms ±5%, 1/2 watt
R214	95	1	P-7763599-P197	39,000 ohms ±5%, 1/2 watt
R215	96	1	P-7763599-P185	12,000 ohms ±5%, 1/2 watt
R216	97	1	P-7763599-P200	51,000 ohms ±5%, 1/2 watt
R217	98	1	P-7763599-P199	47,000 ohms ±5%, 1/2 watt
R218	99	1	P-7763599-P187	15,000 ohms ±5%, 1/2 watt
R219	100	1	P-7763599-P209	120,000 ohms ±5%, 1/2 watt
R220	93	-	Same as R209	-
R221	82	-	Same as R164	-
R222	95	-	Same as R214	-
R223	101	1	P-7763599-P214	200,000 ohms ±5%, 1/2 watt
R224	91	-	Same as R207	-
R225	64	-	Same as R103	-
R226	102	1	P-7763600-P184	11,000 ohms ±5%, 1 watt
R227	90	-	Same as R205	-
R228	R	1	M-7464321-P2	Bradleyometer, 6250 ohms ±10% (panel) 800,000 ohms ±10% (rear)
R229	90	-	Same as R205	-
R230	103	1	P-7763599-P205	82,000 ohms ±5%, 1/2 watt
R231	103	-	Same as R230	-
R232	85	-	Same as R168	-
R233	104	1	P-7763599-P223	470,000 ohms ±5%, 1/2 watt
R234	105	1	P-7763599-P192	24,000 ohms ±5%, 1/2 watt
R235	103	-	Same as R203	-
R236	95	-	Same as R214	-
R237	106	1	P-7763599-P218	300,000 ohms ±5%, 1/2 watt
R238	67	-	Same as R107	-
R239	91	-	Same as R207	-
R240	103	-	Same as R230	-
R241	96	-	Same as R215	-
R242	97	-	Same as R216	-
R243	107	1	P-7763599-P166	2000 ohms ±5%, 1/2 watt
R244	103	-	Same as R230	-
R245	98	-	Same as R217	-
R246	108	1	P-7763600-P195	33,000 ohms ±5%, 1 watt
R247	105	-	Same as R234	-
R248	85	-	Same as R168	-
R249	95	-	Same as R214	-
R250	109	1	P-7763599-P71	5600 ohms ±10%, 1/2 watt
R251	103	-	Same as R230	-
R252	102	-	Same as R226	-
R253	85	-	Same as R168	-
R302	110	1	P-7763599-P54	220 ohms ±10%, 1/2 watt
R303	89	-	Same as R205	-
R304	68	-	Same as R109	-
R305	89	-	Same as R205	-

OPERATING SPARE PARTS (CONT'D)
FOR
NAVY MODEL RAX-1 AIRCRAFT RADIO RECEIVING EQUIPMENT

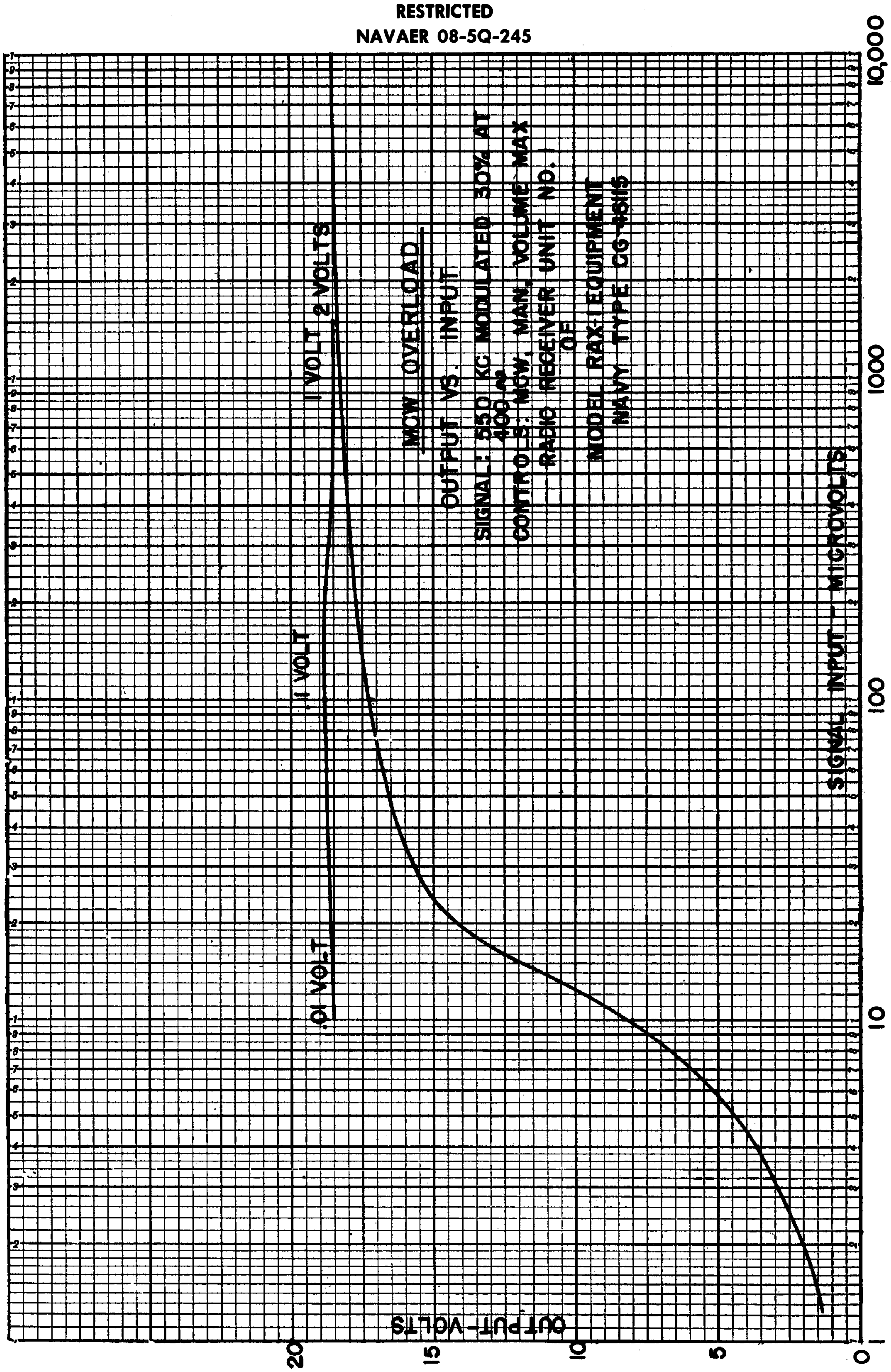
SYMBOL NO.	ENVELOPE NO. OR BOX LETTER	QUANTITY	G.E. DRAWING AND PART NUMBER	DESCRIPTION
R306	79	-	Same as R159	-
R307	110	-	Same as R302	-
R308	S	1	M-7464322-P2	Bradleyometer, 2500 ohms ±10%
R309	68	-	Same as R109	-
R310	111	1	P-7763600-P82	47,000 ohms ±10%, 1 watt
R311	90	-	Same as R205	-
R312	~~79~~ 82	-	Same as ~~R159~~ R164	-
R313	86	-	Same as R169	-
R314	67	-	Same as R107	-
R315	112	1	P-7763600-P181	8200 ohms ±5%, 1 watt
R316	72	-	Same as R128	-
R317	82	-	Same as R164	-
R320	87	-	Same as R177	-
R321	103	-	Same as R230	-
R322	64	-	Same as R103	-
R323	113	1	P-7763599-P59	560 ohms ±10%, 1/2 watt
R324	114	1	P-7763599-P182	9100 ohms ±5%, 1/2 watt
R326	R	-	Same as R228	-
R328	121	1	P-7763600-P169	2700 ohms ±5%, 1 watt
R329	86	-	Same as R169	-
R330	79	-	Same as R159	-
R331	79	-	Same as R159	-
R332	115	1	P-7763599-P77	18,000 ohms ±10%, 1/2 watt
R333	88	-	Same as R203	-
R334	83	-	Same as R165	-
R336	97	-	Same as R216	-
R337	88	-	Same as R203	-
R338	67	-	Same as R107	-
R339	116	1	P-7763599-P211	150,000 ohms ±5%, 1/2 watt
R340	68	-	Same as R109	-
R341	82	-	Same as R164	-
R342	117	1	P-7763600-P80	33,000 ohms ±10%, 1 watt
R343	74	-	Same as R130	-
R344	118	1	P-7763600-P67	2700 ohms ±10%, 1 watt
R345	68	-	Same as R109	-
R346	119	1	P-7763599-P84	68,000 ohms ±10%, 1/2 watt
R347	105	-	Same as R234	-
R348	90	-	Same as R205	-
R349	68	-	Same as R109	-
T117	T	1	K-7877947	Cat. No. 67G919
T217	T	-	Same as T117	-
T322	T	-	Same as T117	-
V101	-	13	-	Type 12SK7
V102	-	3	-	Type 12K8
V103	-	-	Same as V101	-
V104	-	-	Same as V101	-
V105	-	3	-	Type 12A6
V106	-	3	-	Type 12SR7
V107	120	3	-	Lamp Type No. CD-1010-CL
V201	-	-	Same as V101	-
V202	-	-	Same as V101	-
V203	-	-	Same as V102	-
V204	-	-	Same as V101	-
V205	-	-	Same as V101	-
V206	-	-	Same as V101	-
V207	-	-	Same as V105	-
V208	-	-	Same as V106	-
V209	-	-	Same as V107	-
V301	-	-	Same as V101	-
V302	-	-	Same as V102	-
V303	-	-	Same as V101	-
V304	-	-	Same as V101	-

OPERATING SPARE PARTS (CONT'D)
FOR
NAVY MODEL RAX-1 AIRCRAFT RADIO RECEIVING EQUIPMENT

SYMBOL NO.	ENVELOPE NO. OR BOX LETTER	QUANTITY	G.E. DRAWING AND PART NUMBER	DESCRIPTION
V305	-	-	Same as V101	-
V306	-	-	Same as V105	-
V307	-	-	Same as V106	-
V308	-	-	Same as V101	-
V309	-	-	Same as V107	-
-	121	4	K-7878415	Grid Clip Type No. 6000 Cinch Mfg. Co.
-	U	1	ML-7762748-G4	Dynamotor mounting
-	-	1	K-7878738	Plug (for use in operating receivers when detached from mounting racks, servicing, testing, etc.)
-	122	3 sets (6)	K-7880785-P1	H-v dynamotor brushes
	123	3 sets (6)	K-7880786-P1	L-v dynamotor brushes

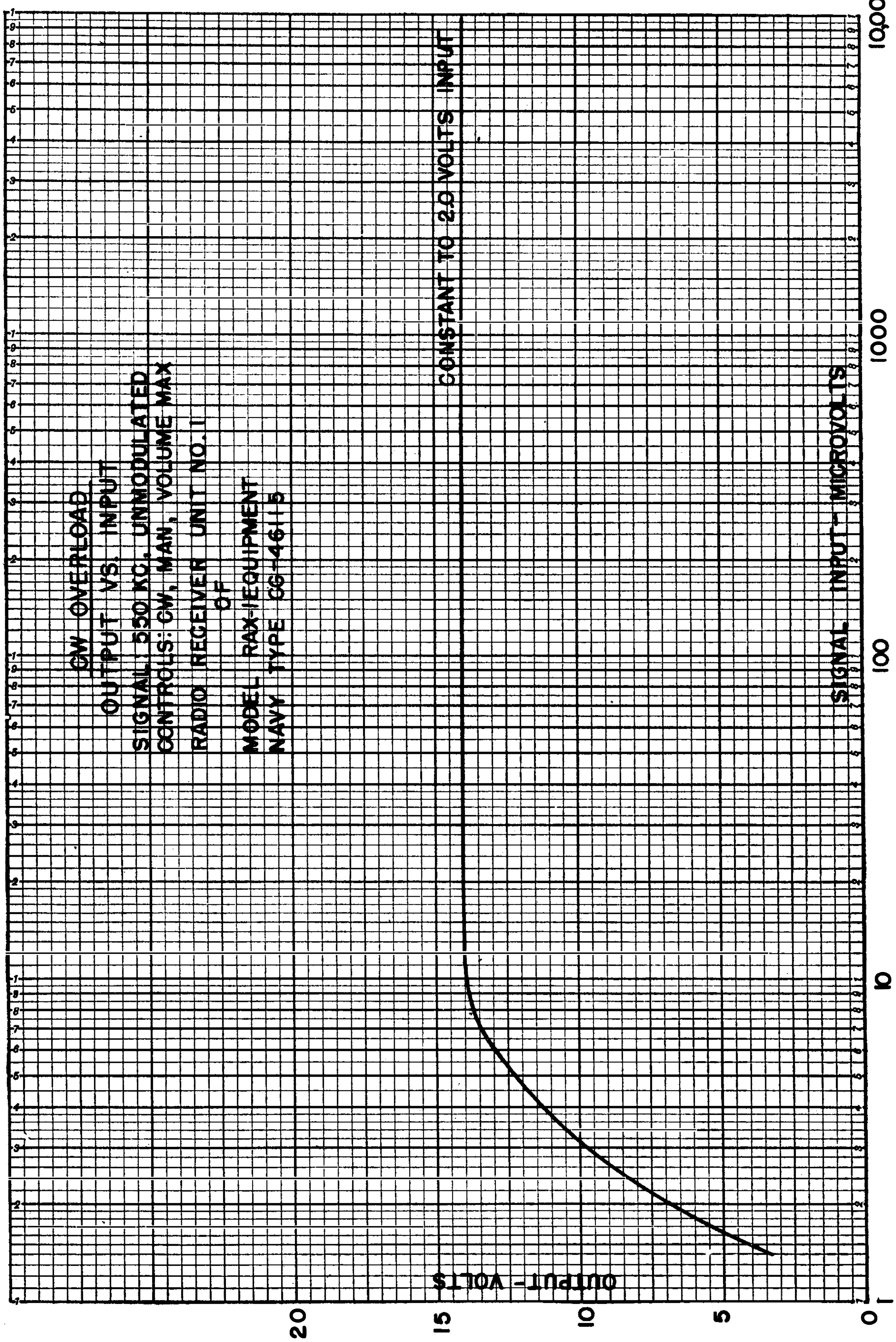

AVC
OUTPUT VS. INPUT
SIGNAL: 550 KC MODULATED 30% AT 400 ~
CONTROLS: MCW, AVC, VOLUME MAX
RADIO RECEIVER UNIT NO. 1 OF
MODEL RAX-1 EQUIPMENT
NAVY TYPE CG-46115
2 VOLTS
1 VOLT
.1 VOLT
.01 VOLT
SIGNAL INPUT-MICROVOLTS
1
10
100
1000
10,000
OUTPUT-VOLTS
5
10
15
20

AVC Curve



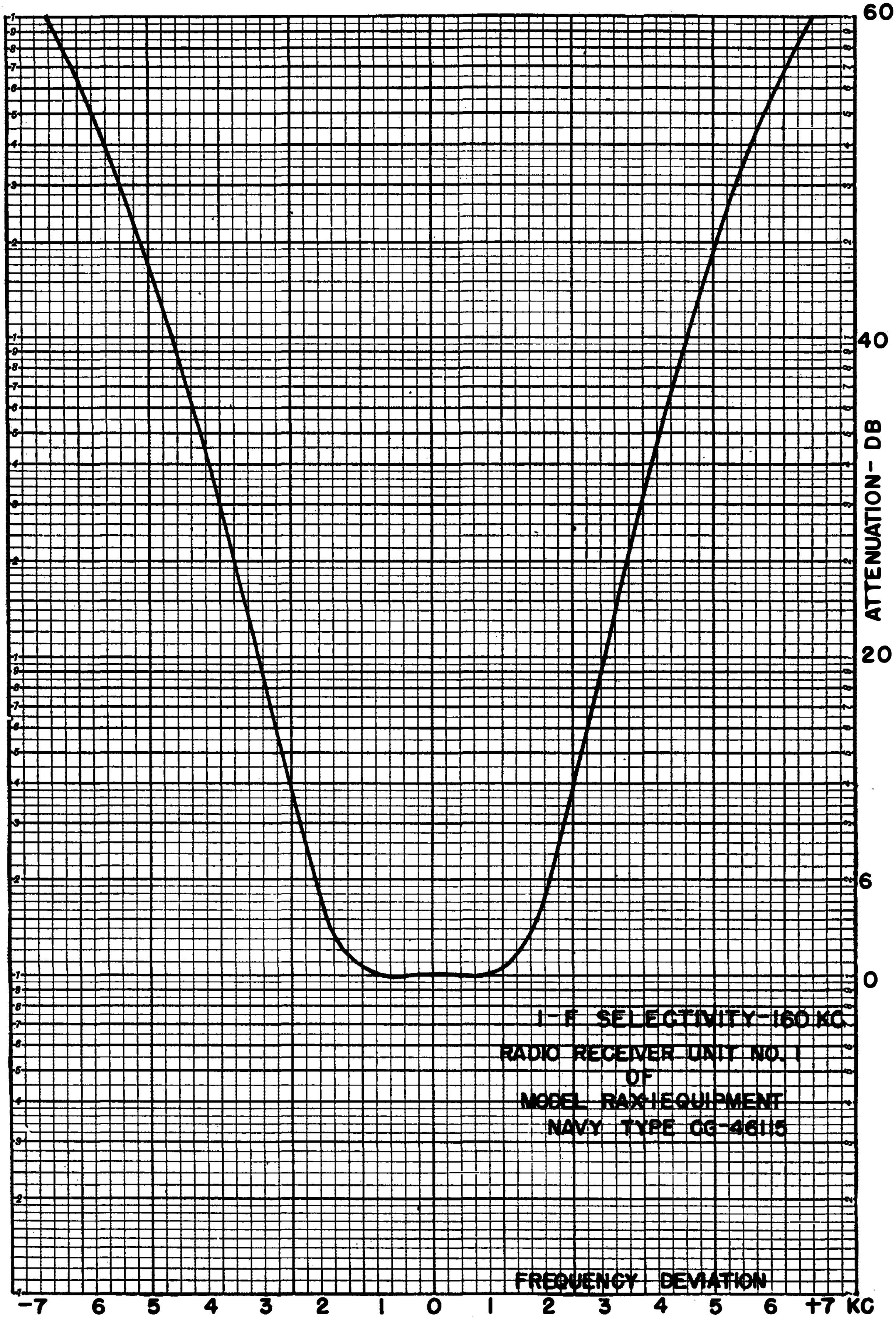
K-7883552

MCW Overload Curve



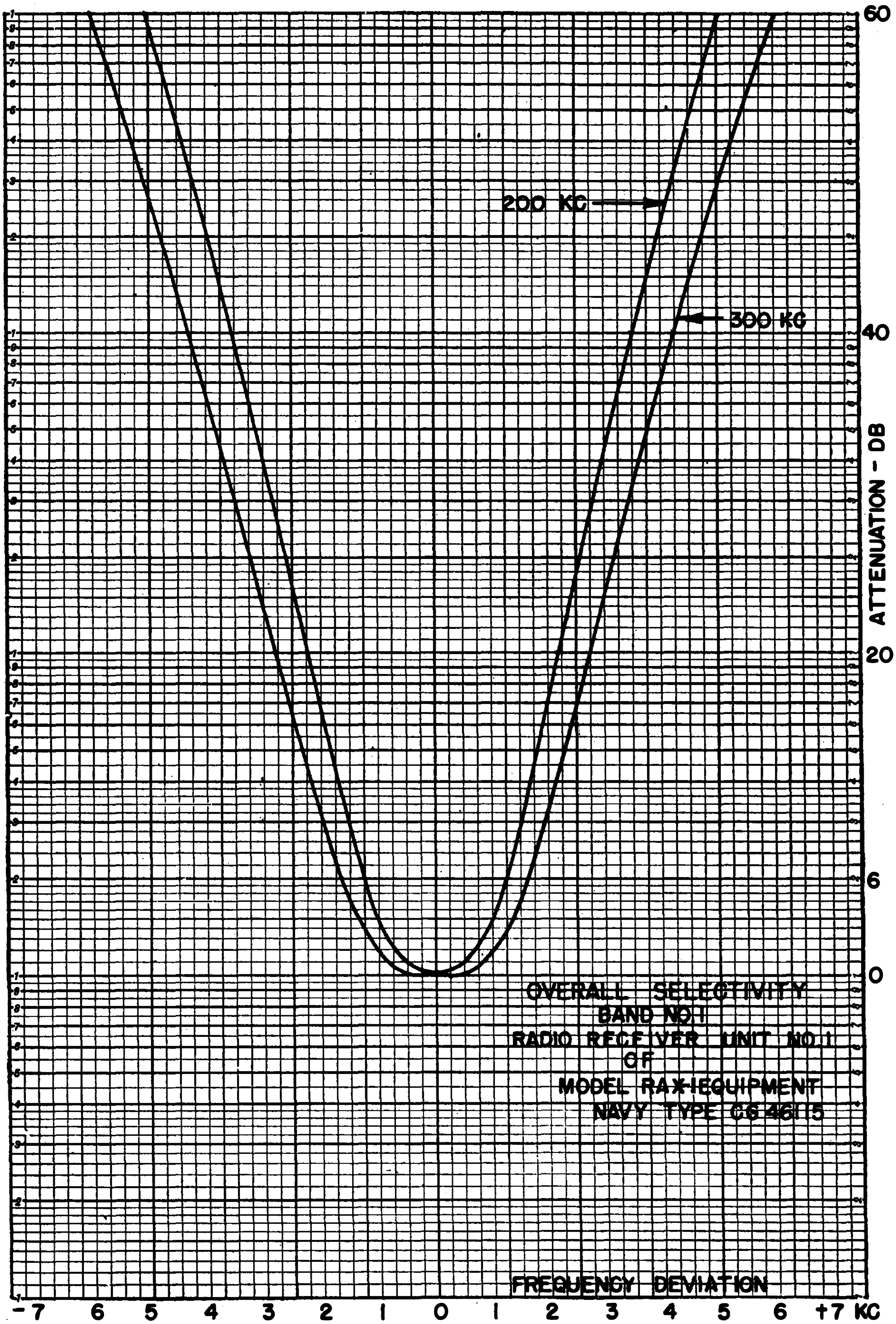
CW Overload Curve

K-7883553



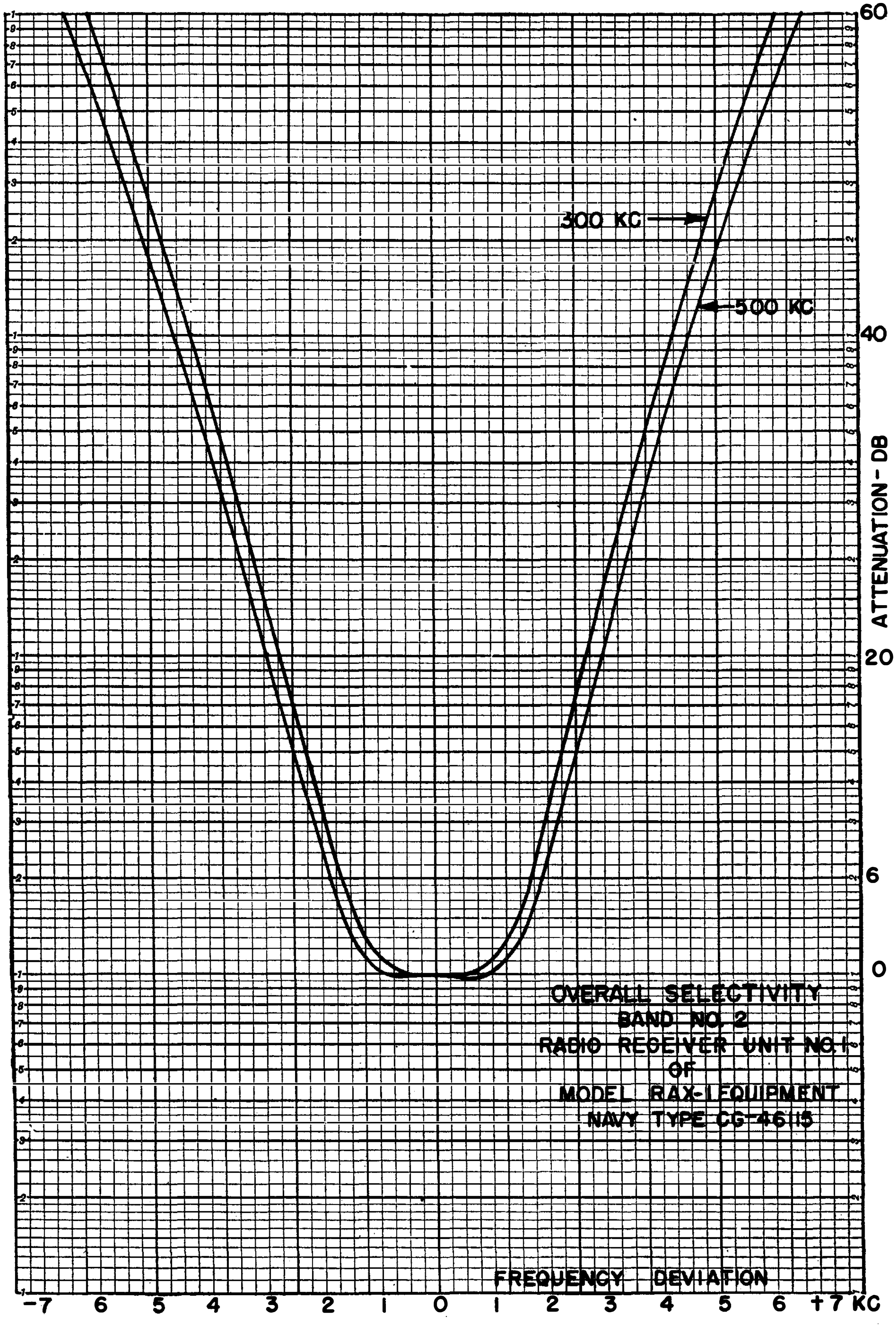
K-7883554

I-f Selectivity Curve



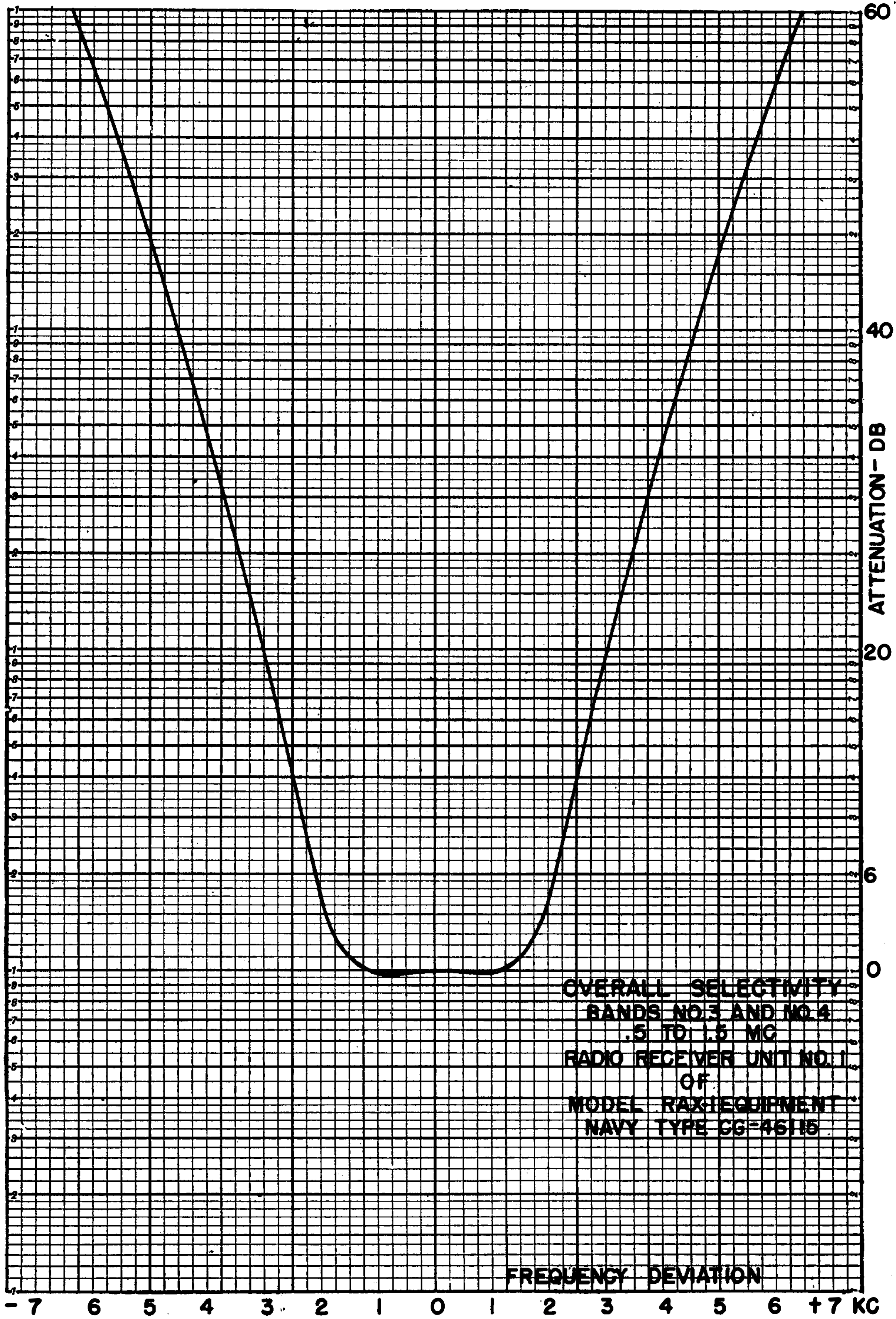
Over-all Selectivity Curve, Band No. 1

K-7883555



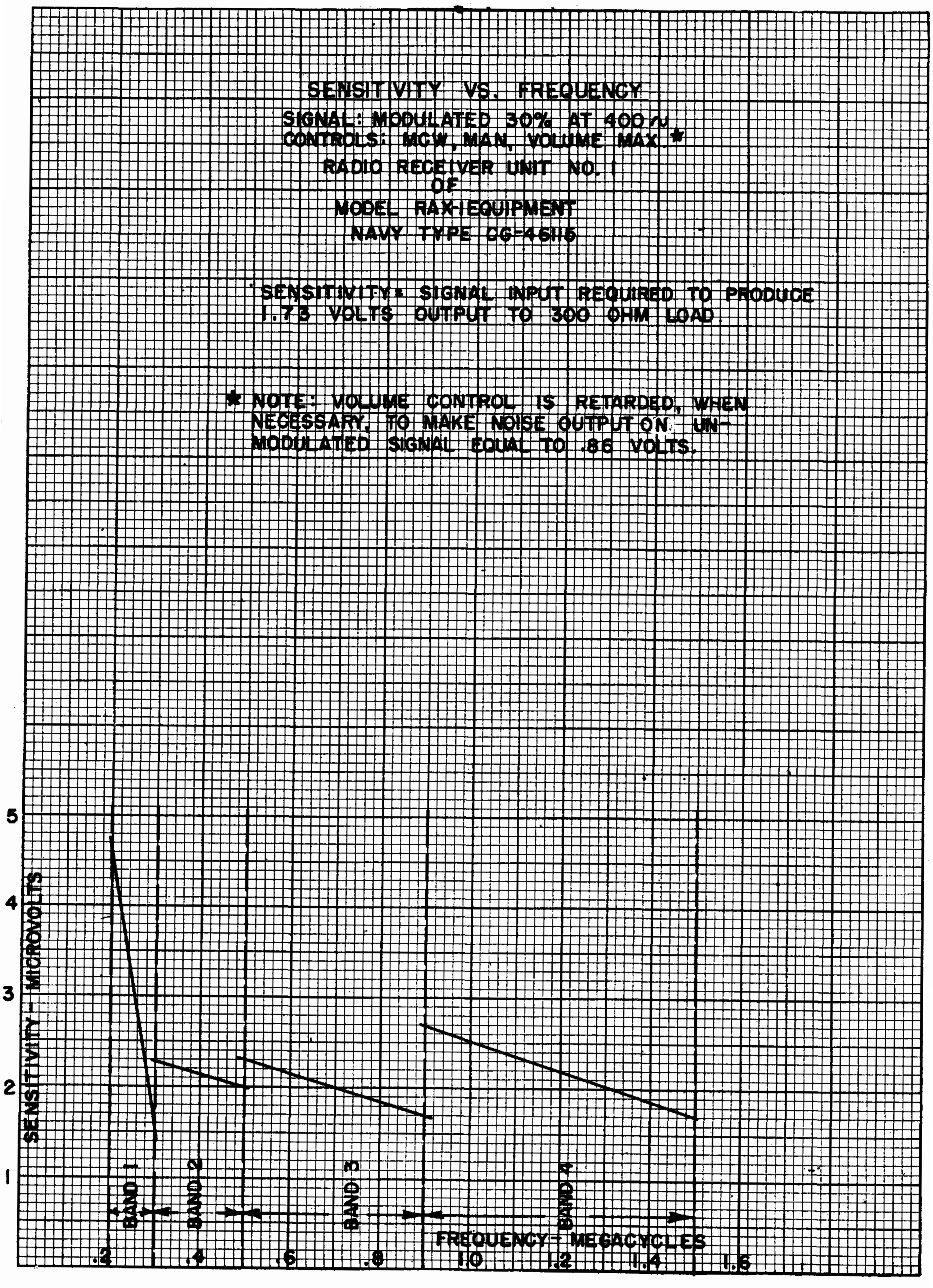
K-7883556

Over-all Selectivity Curve, Band No. 2



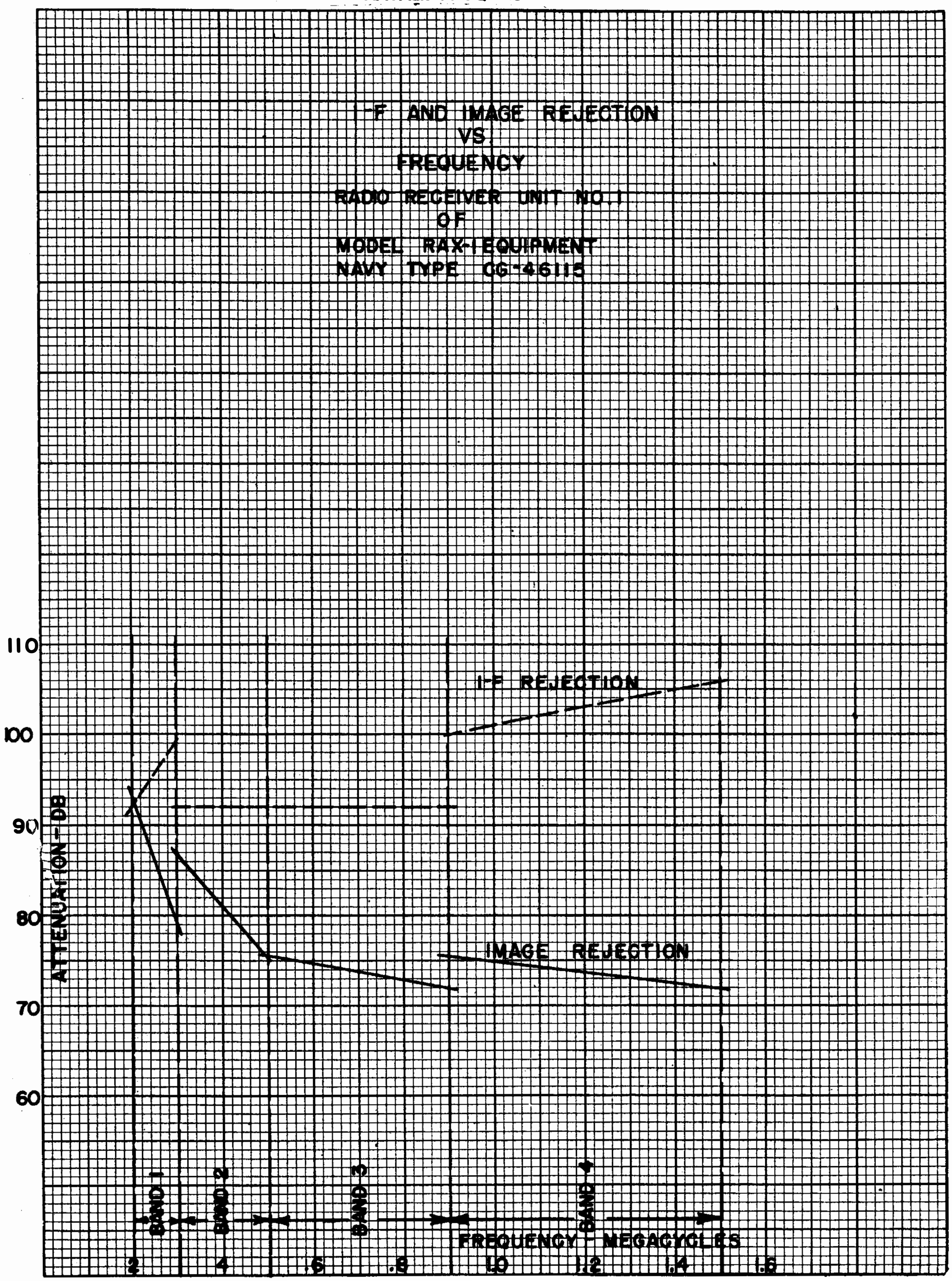
Over-all Selectivity Curve, Band No. 3 and 4

K-7883557



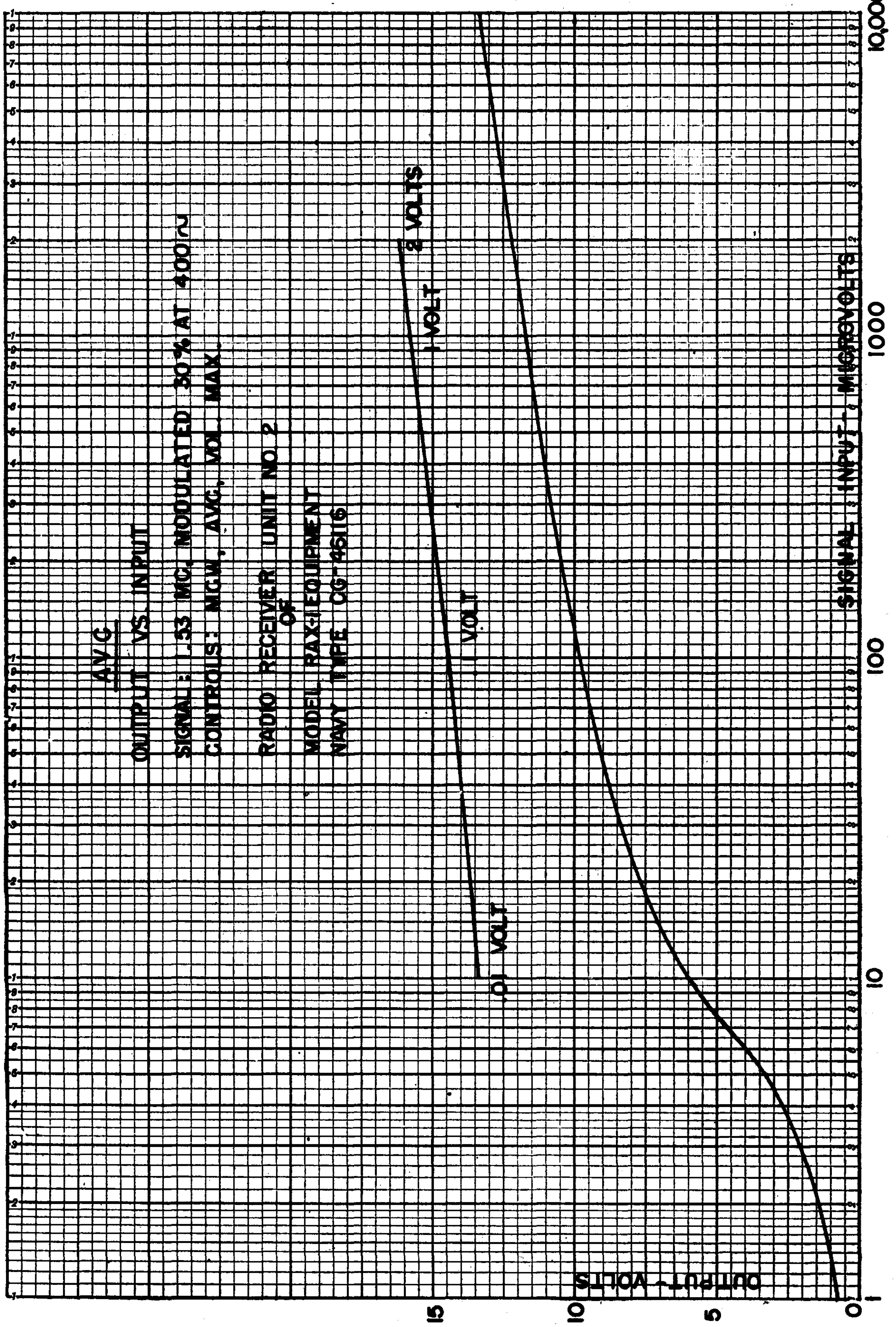
K-7883558

Sensitivity Curve



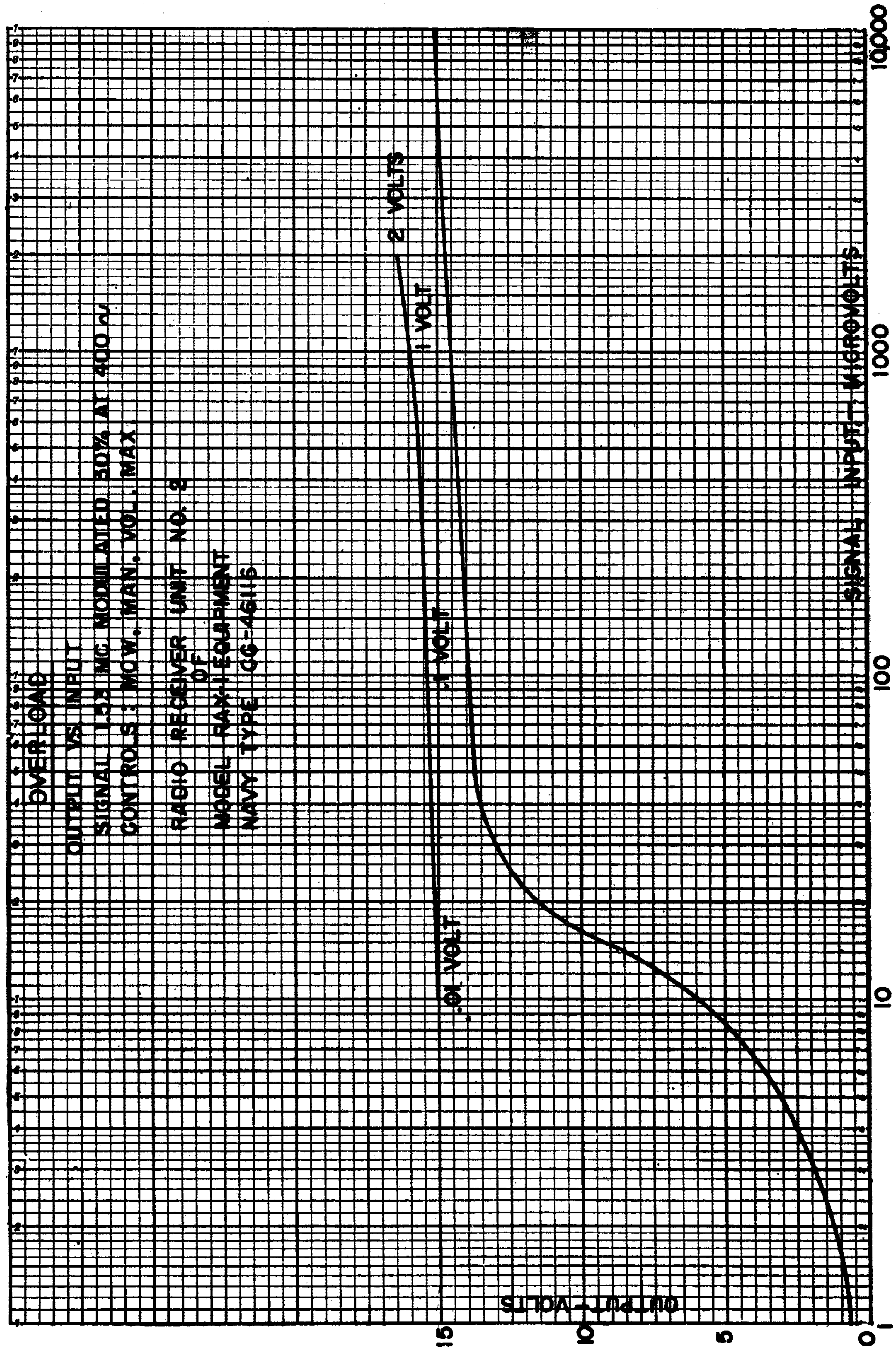
I-f and Image Rejection

K-7883559



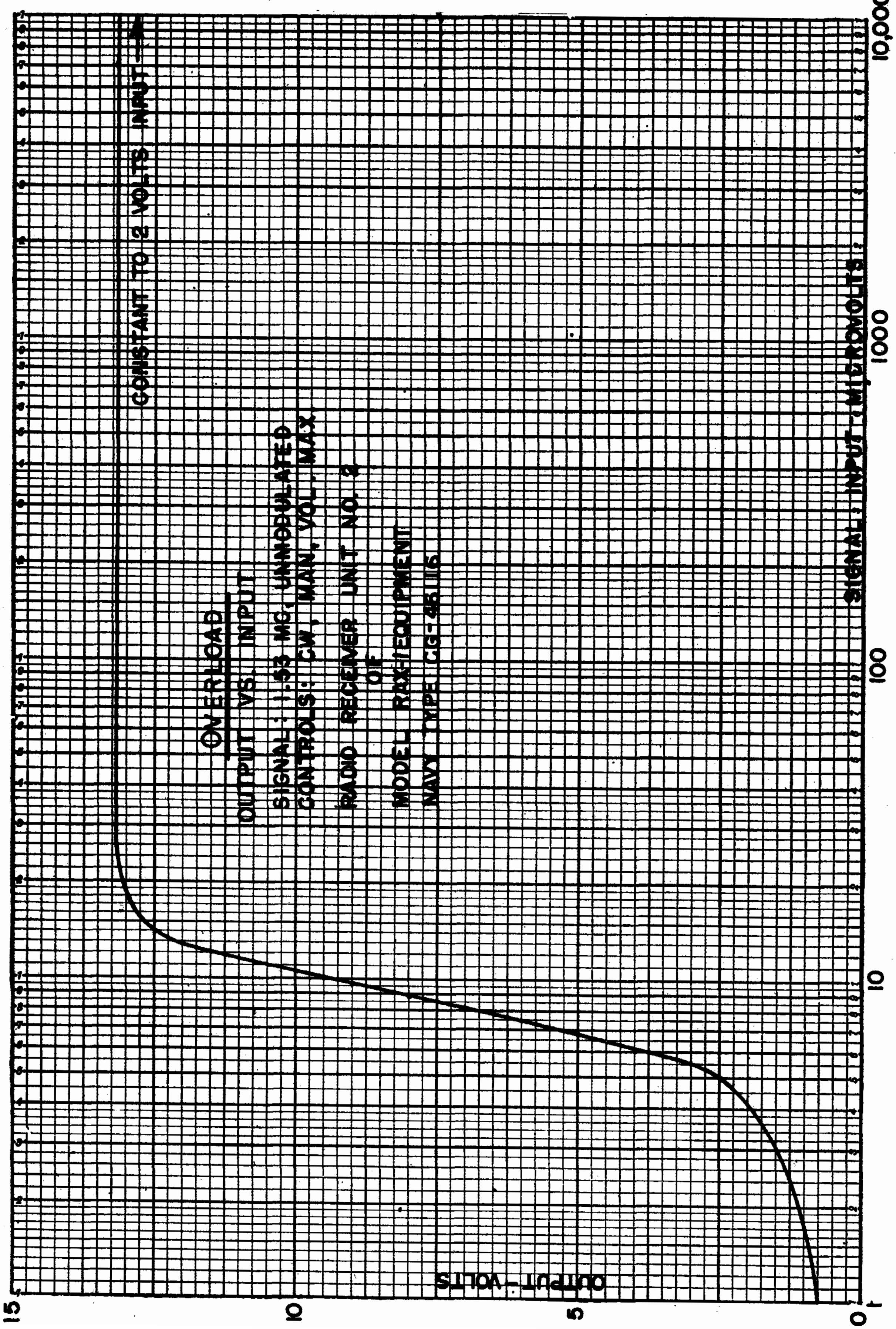
K-7883560

AVC Curve



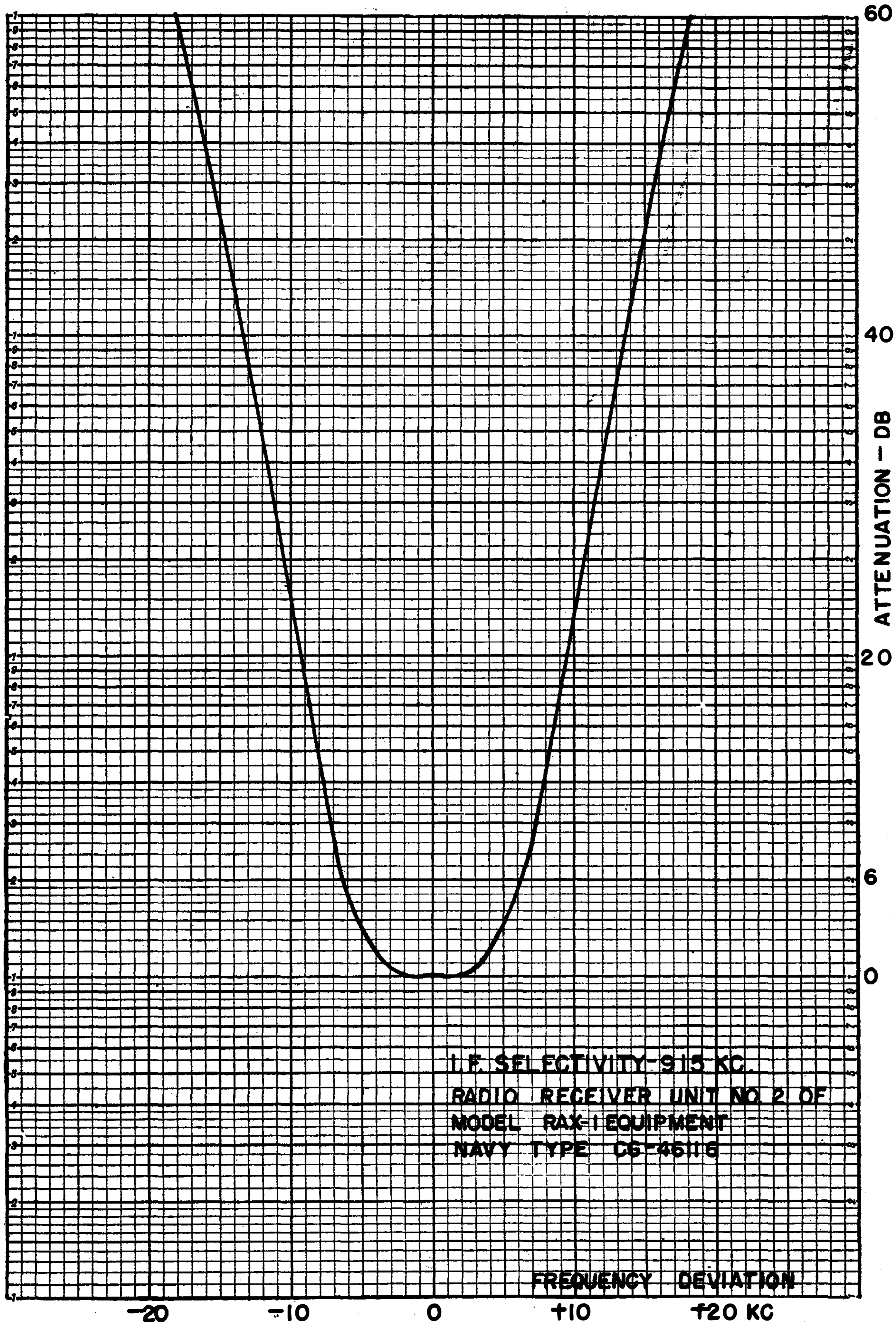
MCW Overload Curve

K-7883561



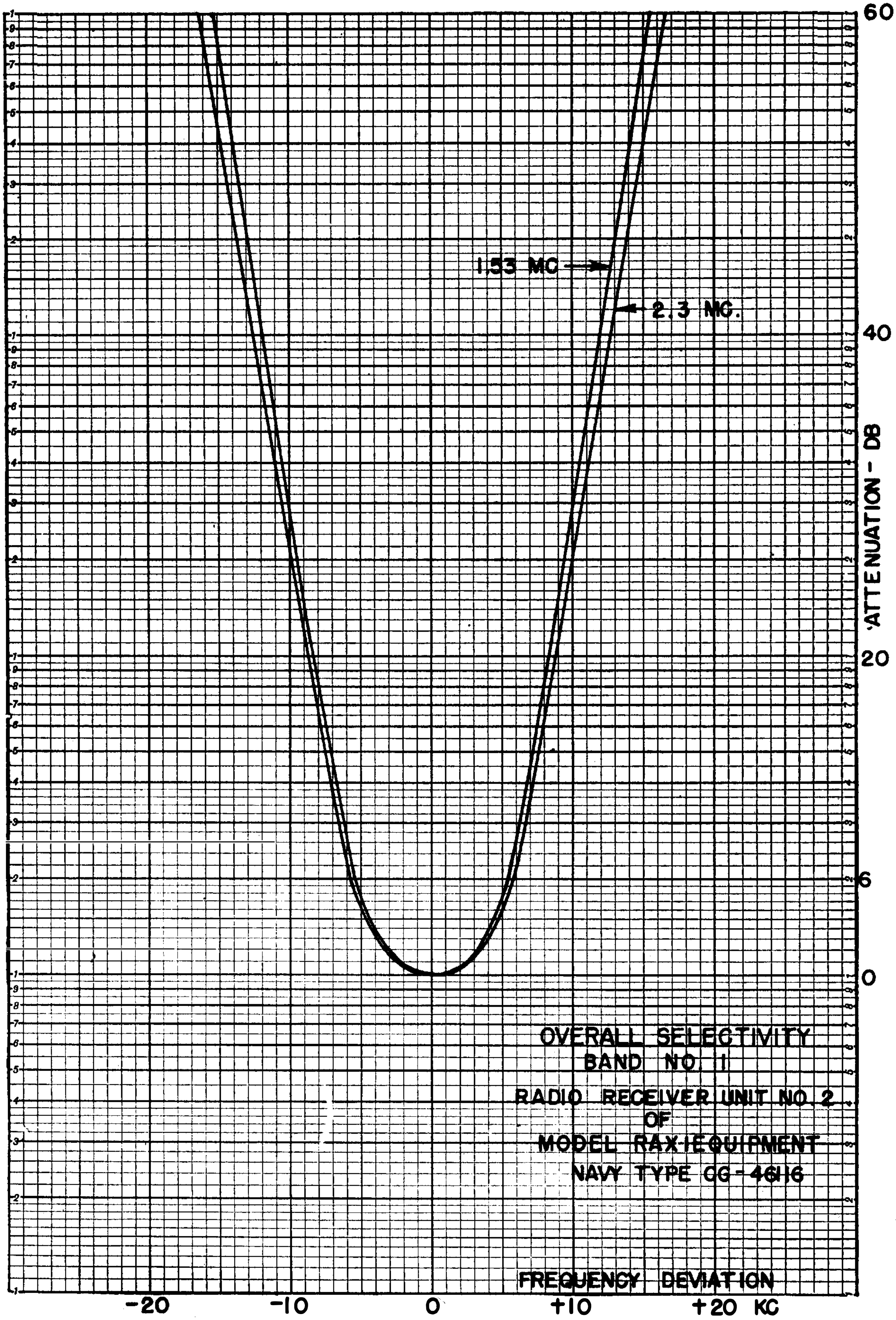
K-7883562

CW Overload Curve



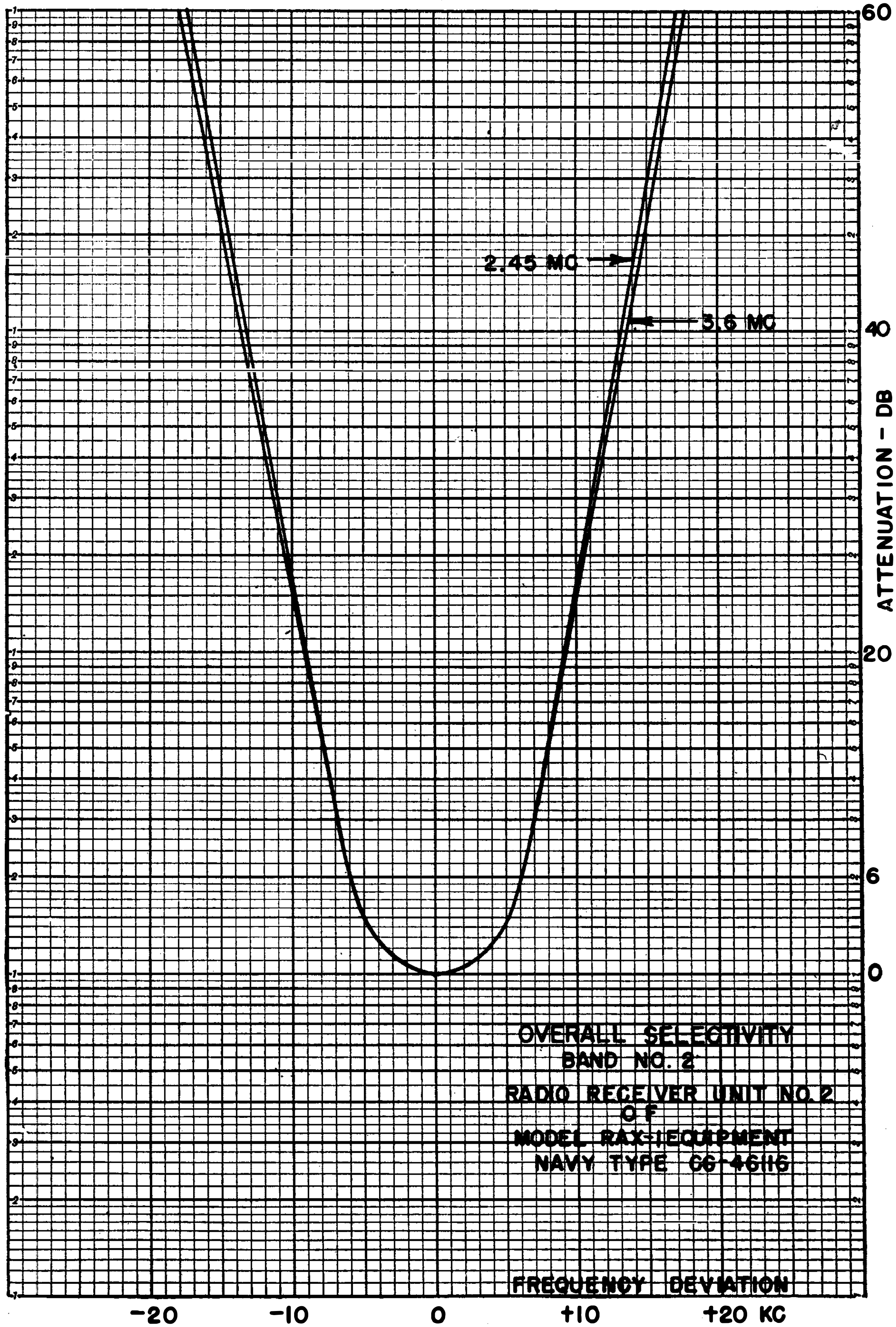
I-f Selectivity Curve

K-7883563



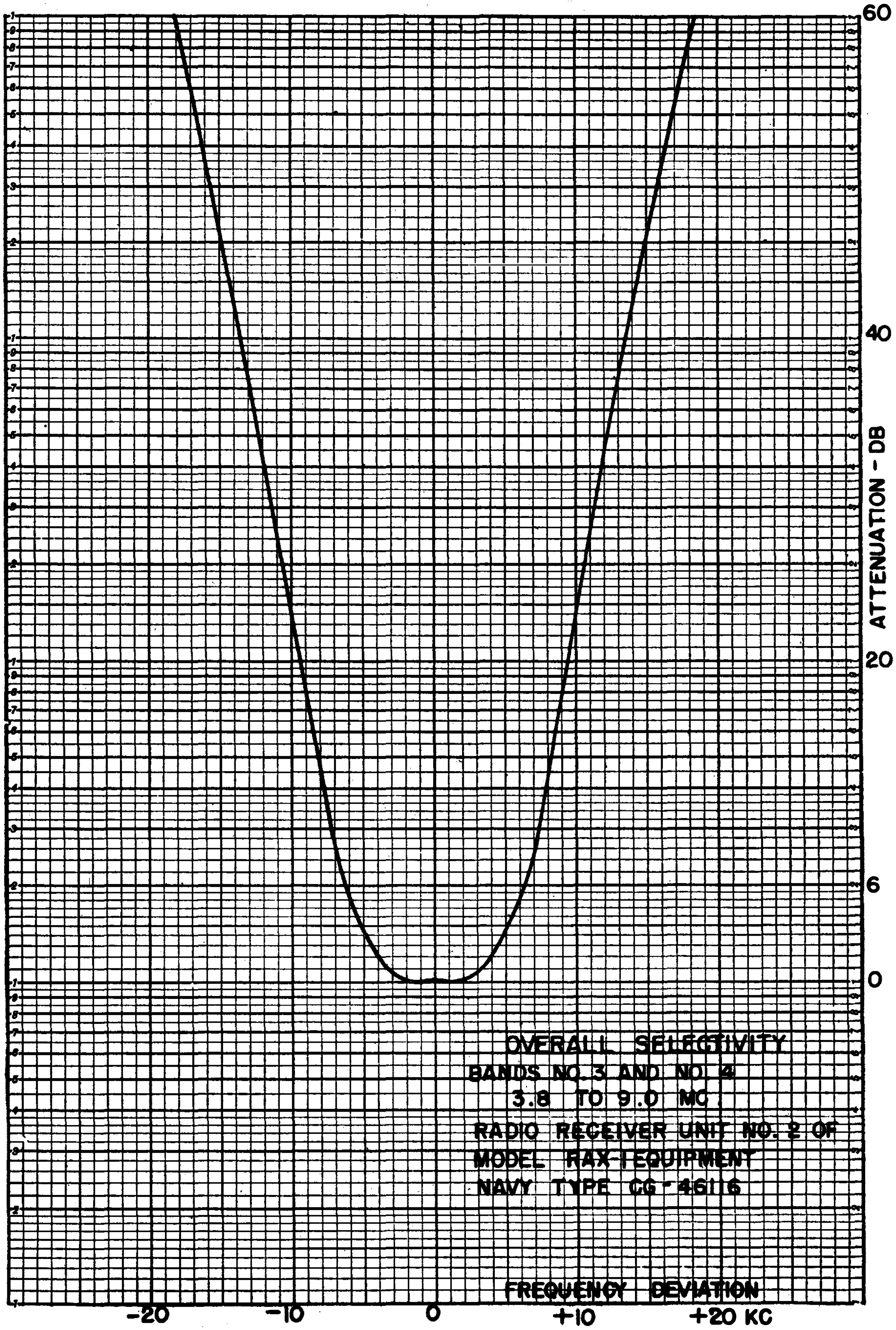
K-7883564

Over-all Selectivity Curve, Band No. 1



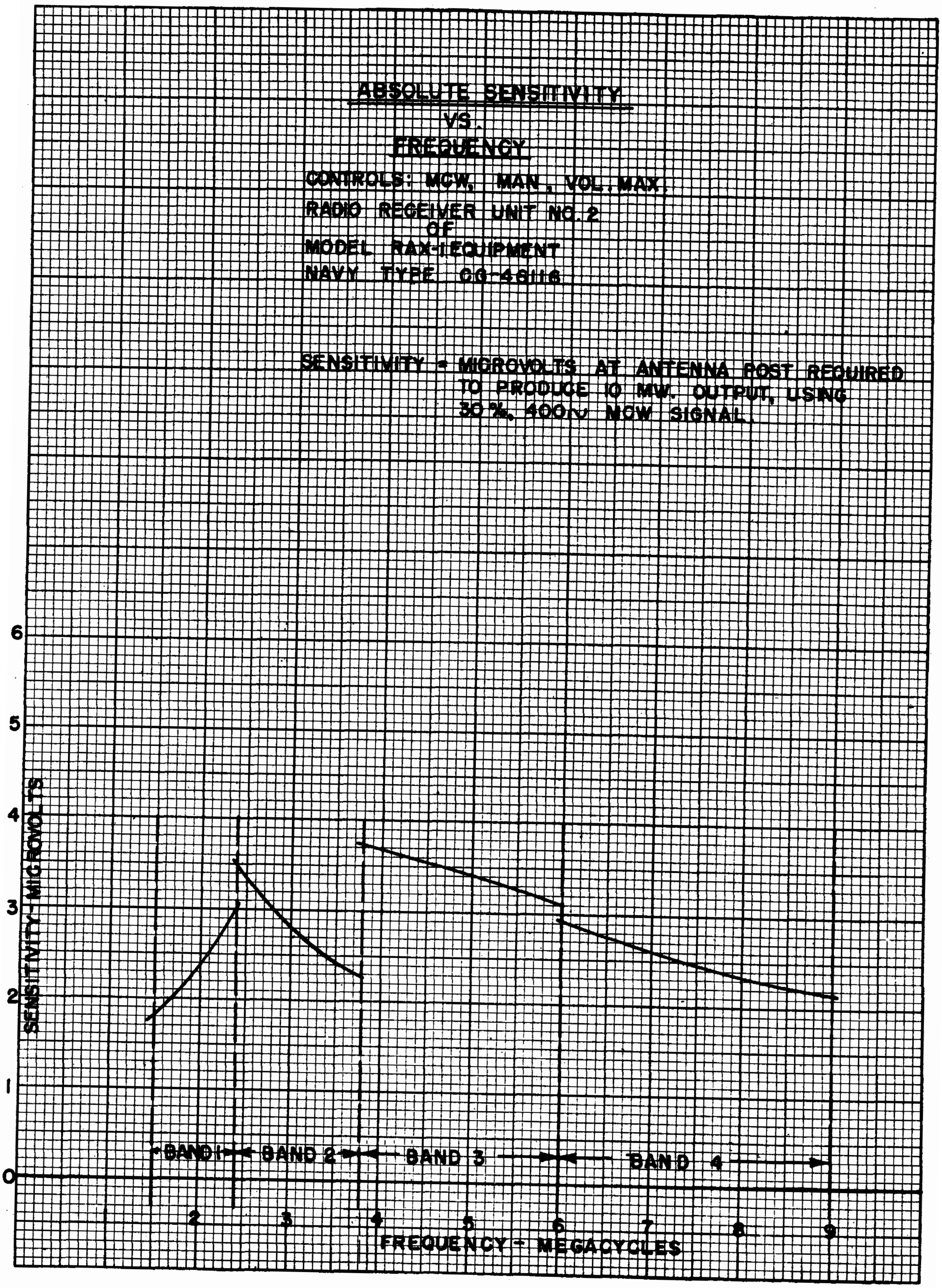
Over-all Selectivity Curve, Band No. 2

K-7883565



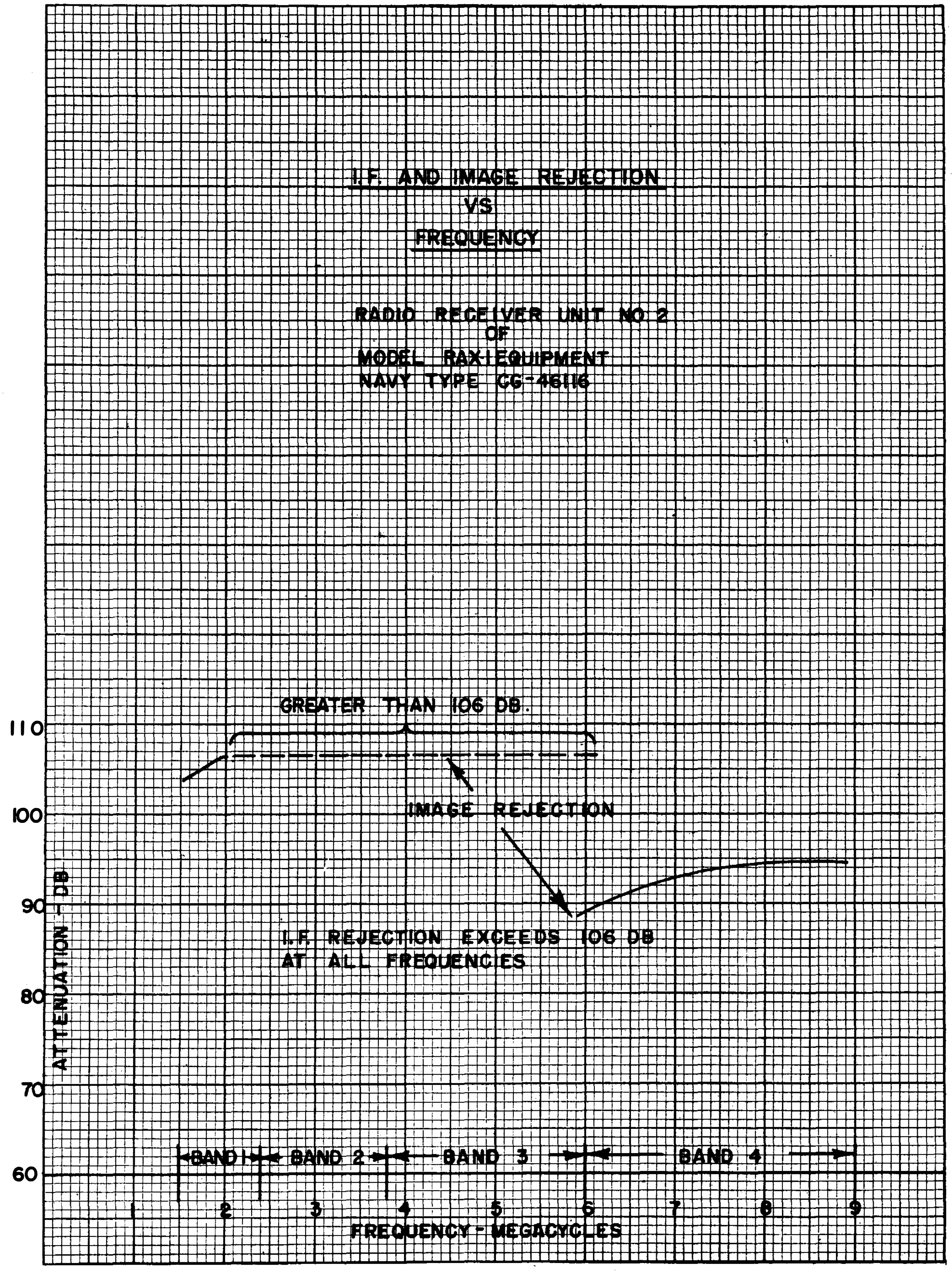
K-7883566

Over-all Selectivity Curve, Band No. 3 and 4



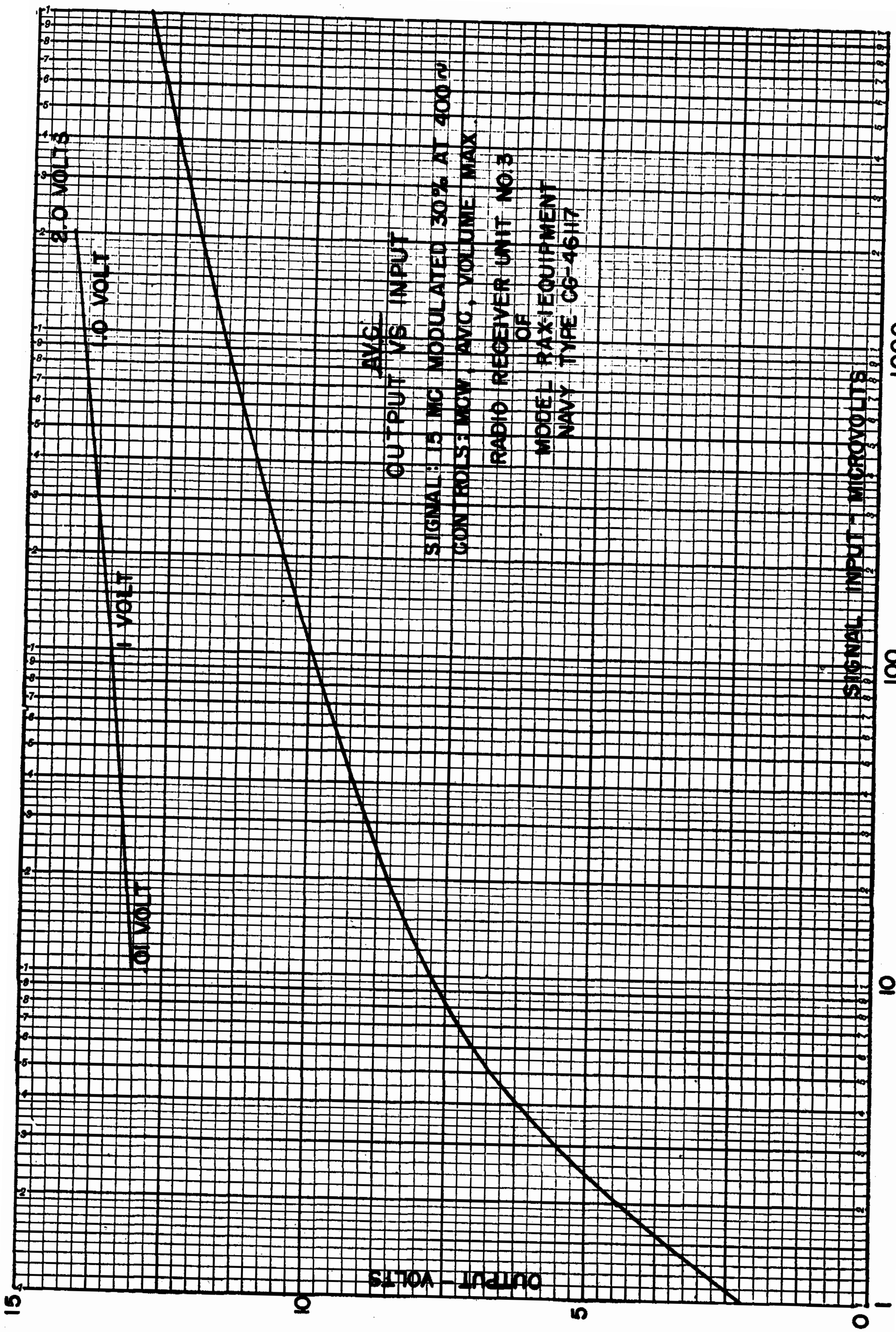
Sensitivity Curve

K-7883567



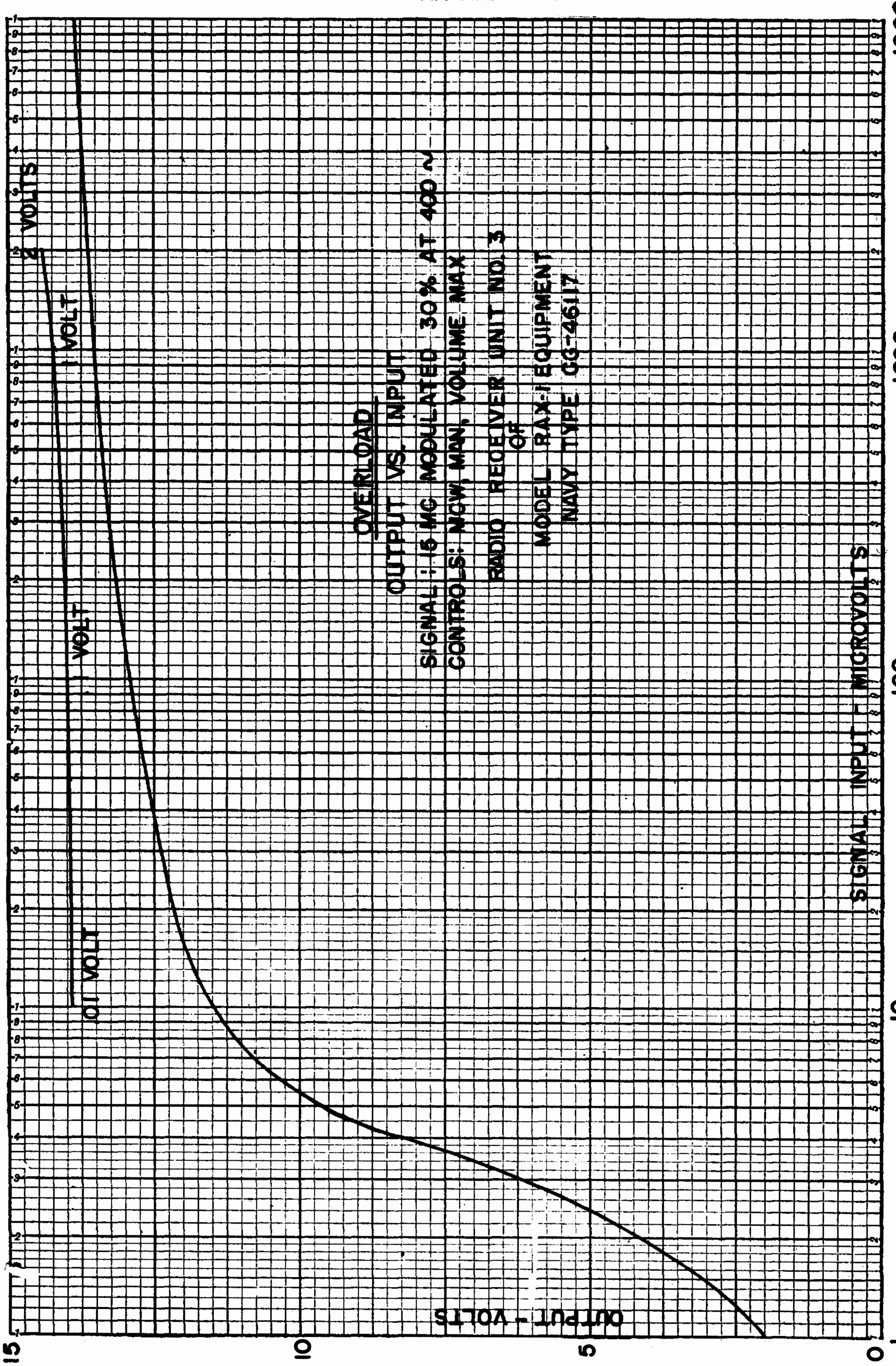
K-7883568

I-f and Image Rejection



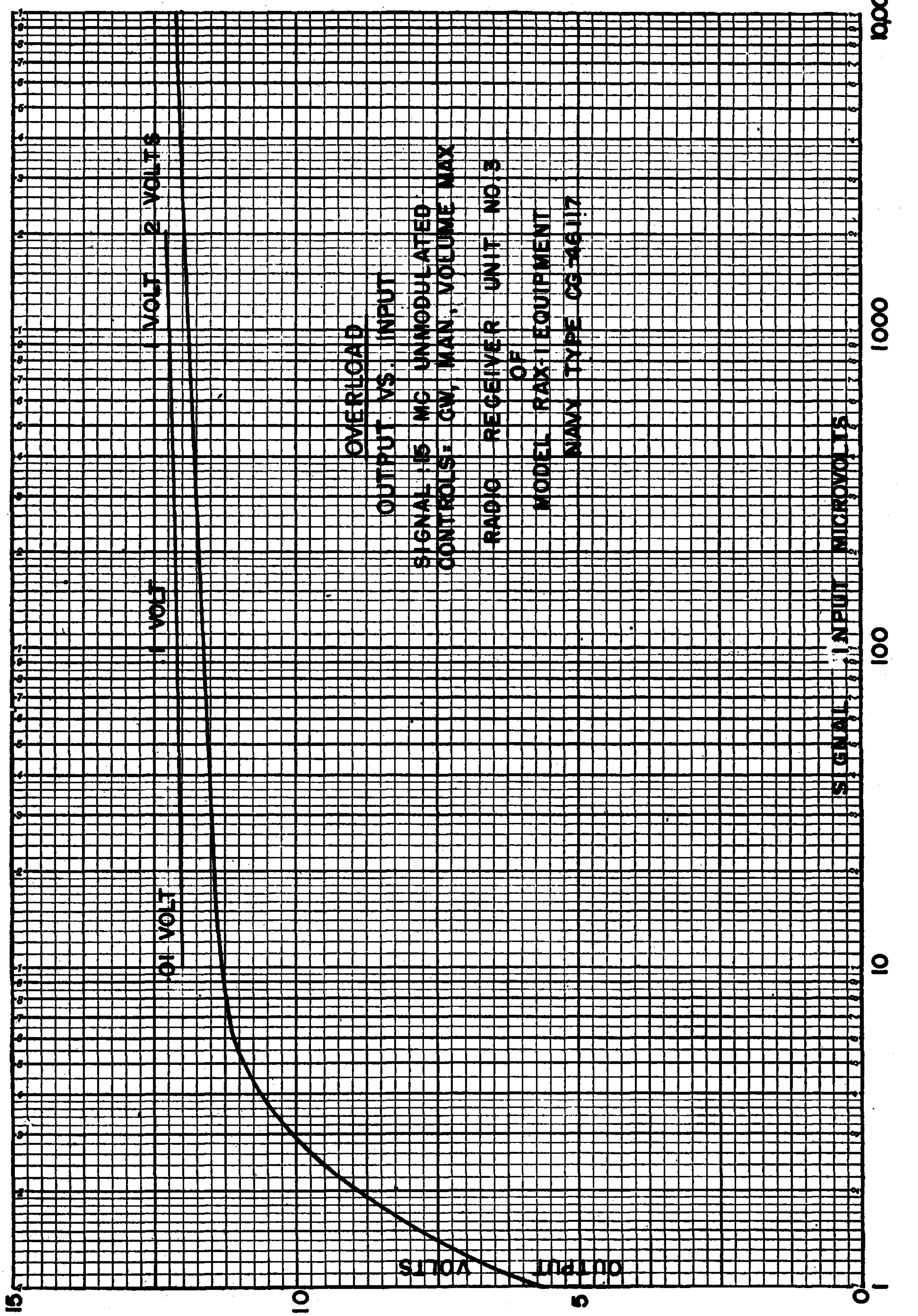
AVC Curve

K-7883569

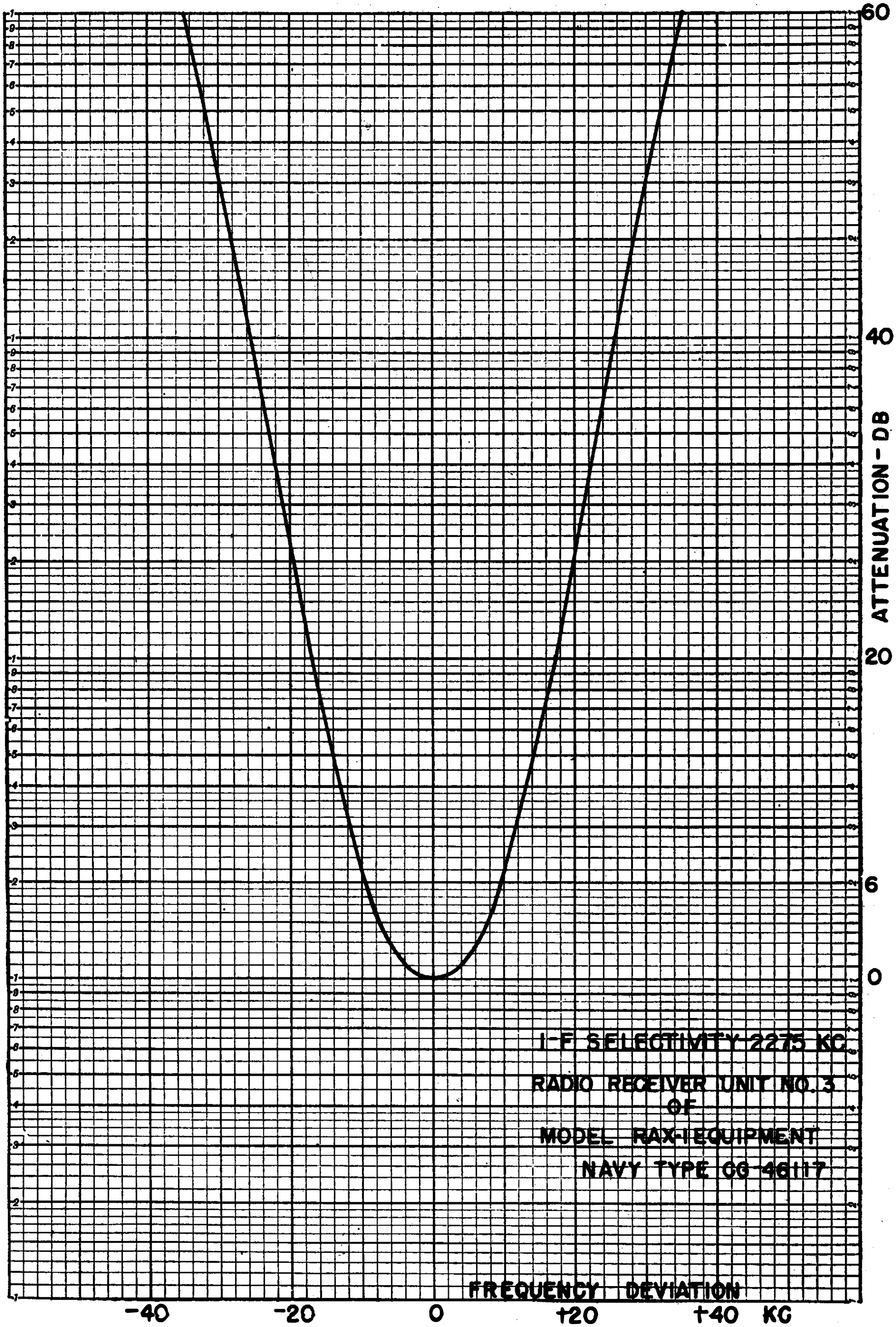


MCW Overload Curve

K-7883570

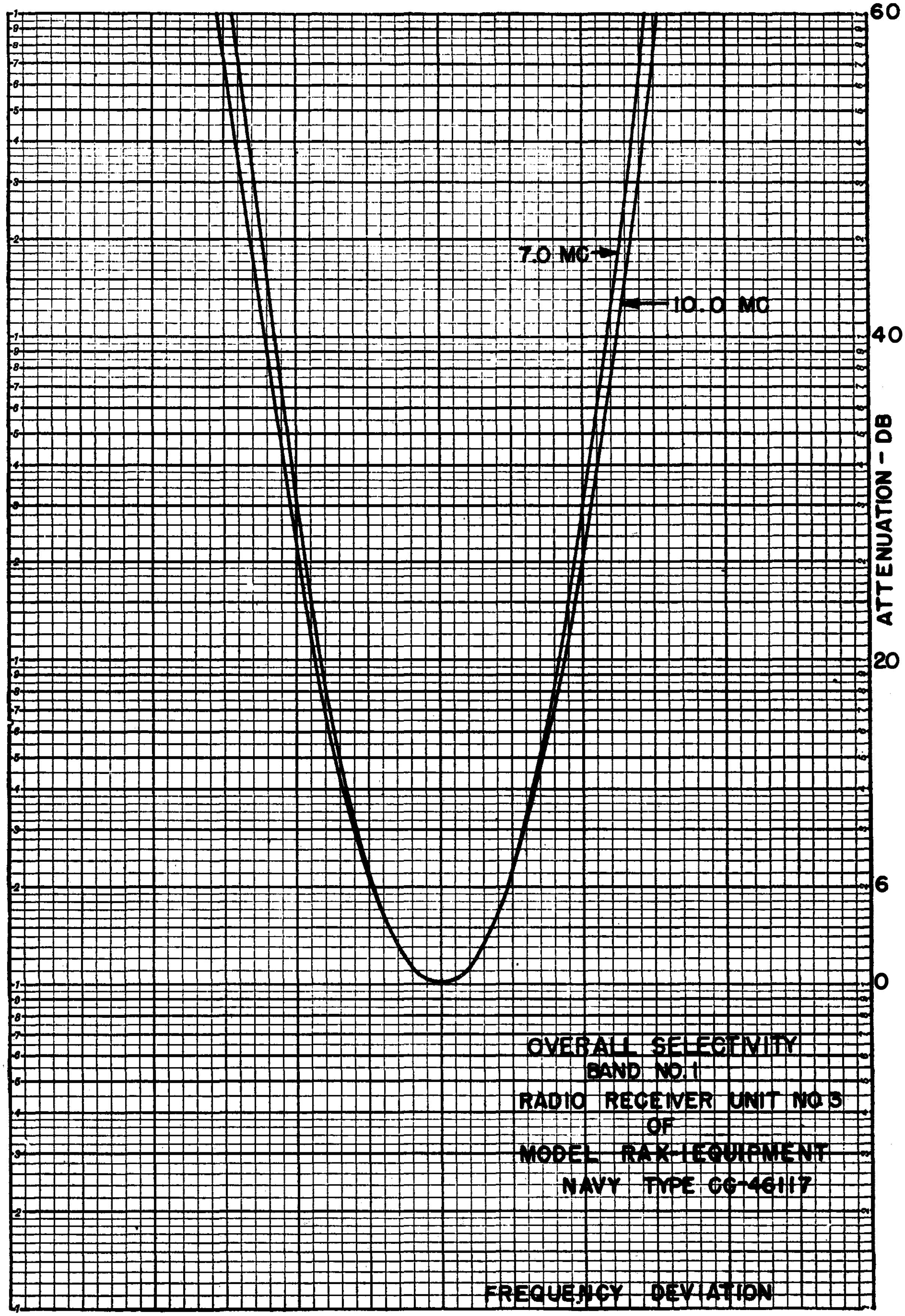


CW Overload Curve



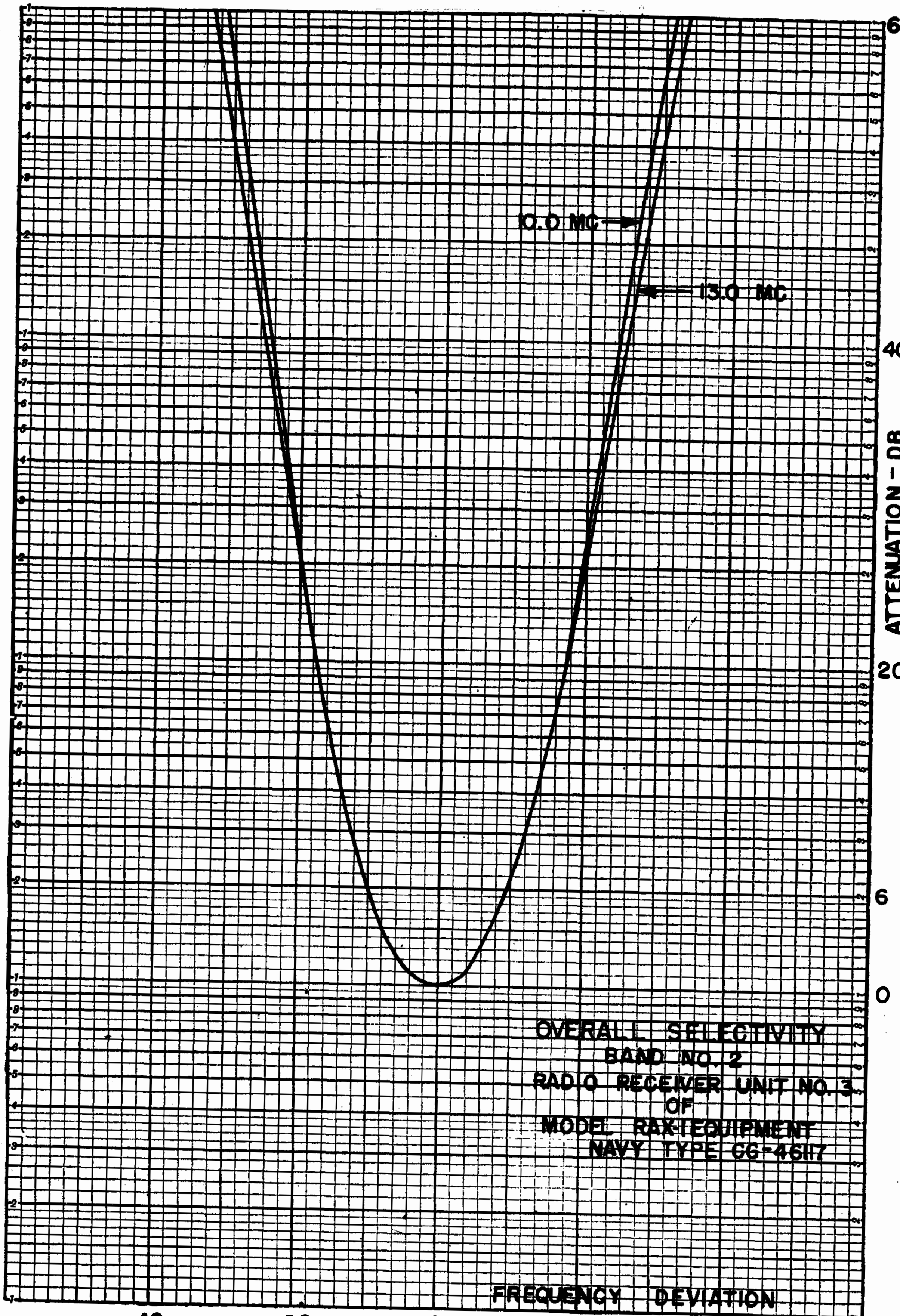
K-7883572

I-f Selectivity Curve



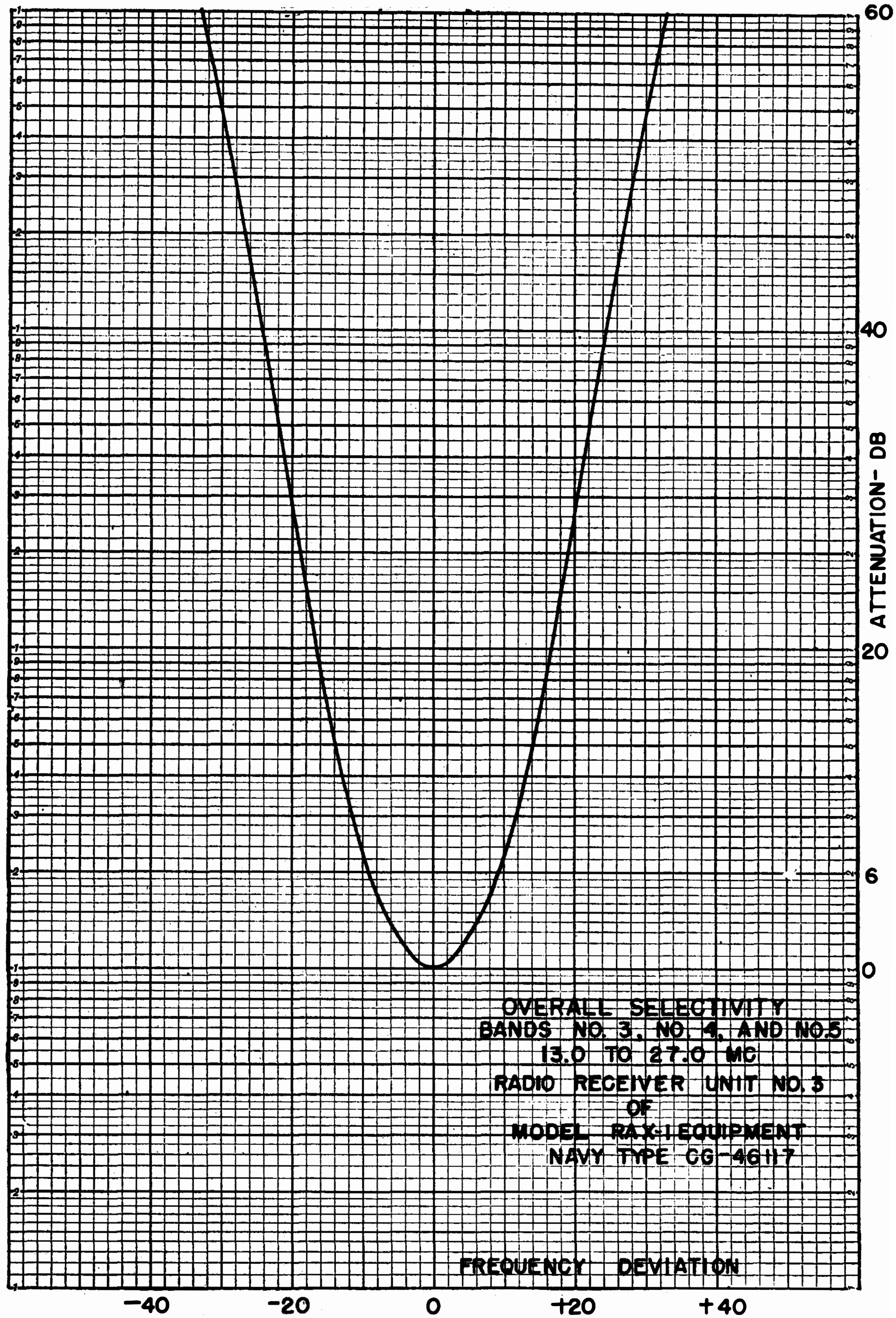
Over-all Selectivity Curve, Band No. 1

K-7883573



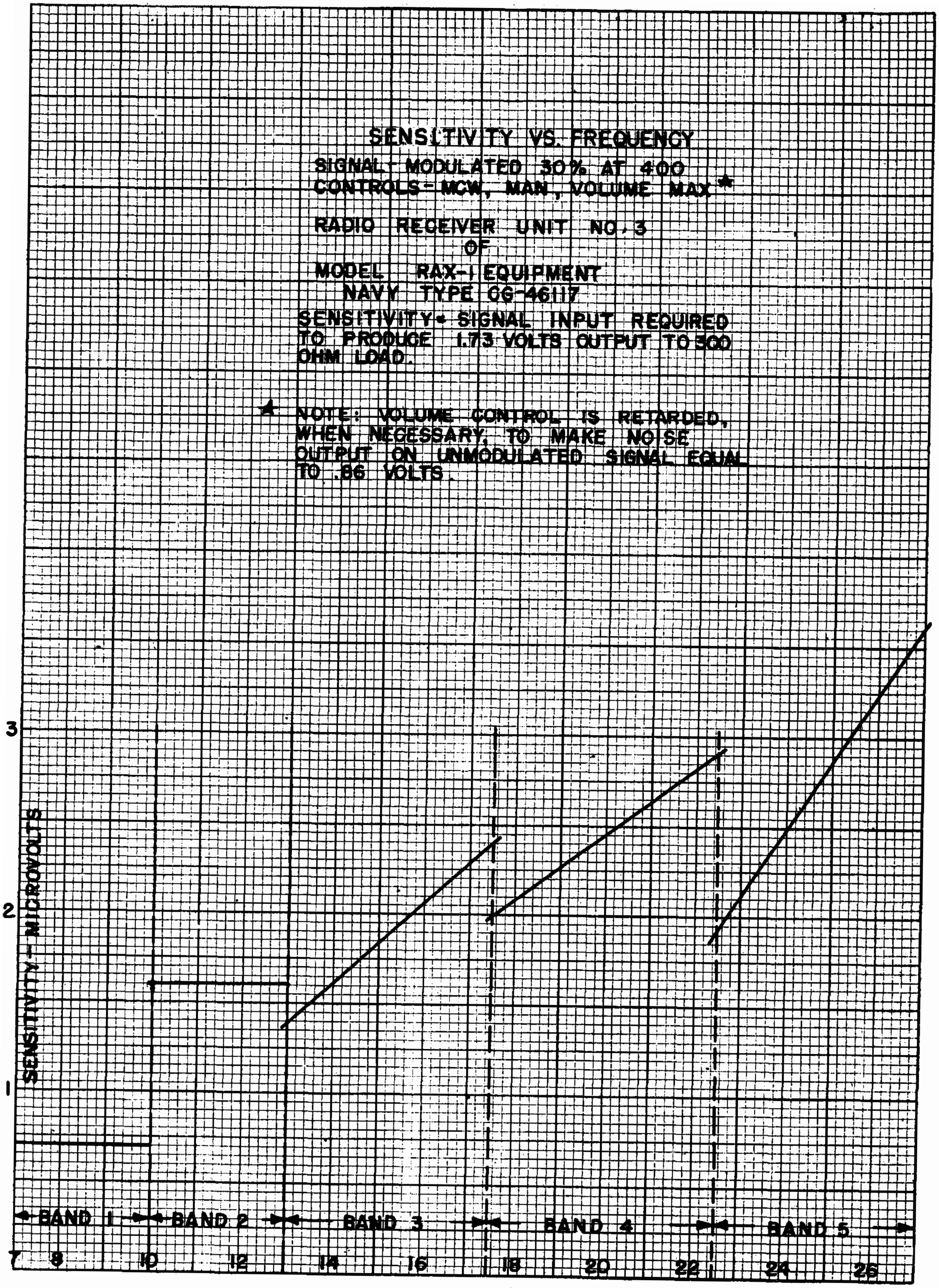
Over-all Selectivity Curve, Band No. 2

K-7883574



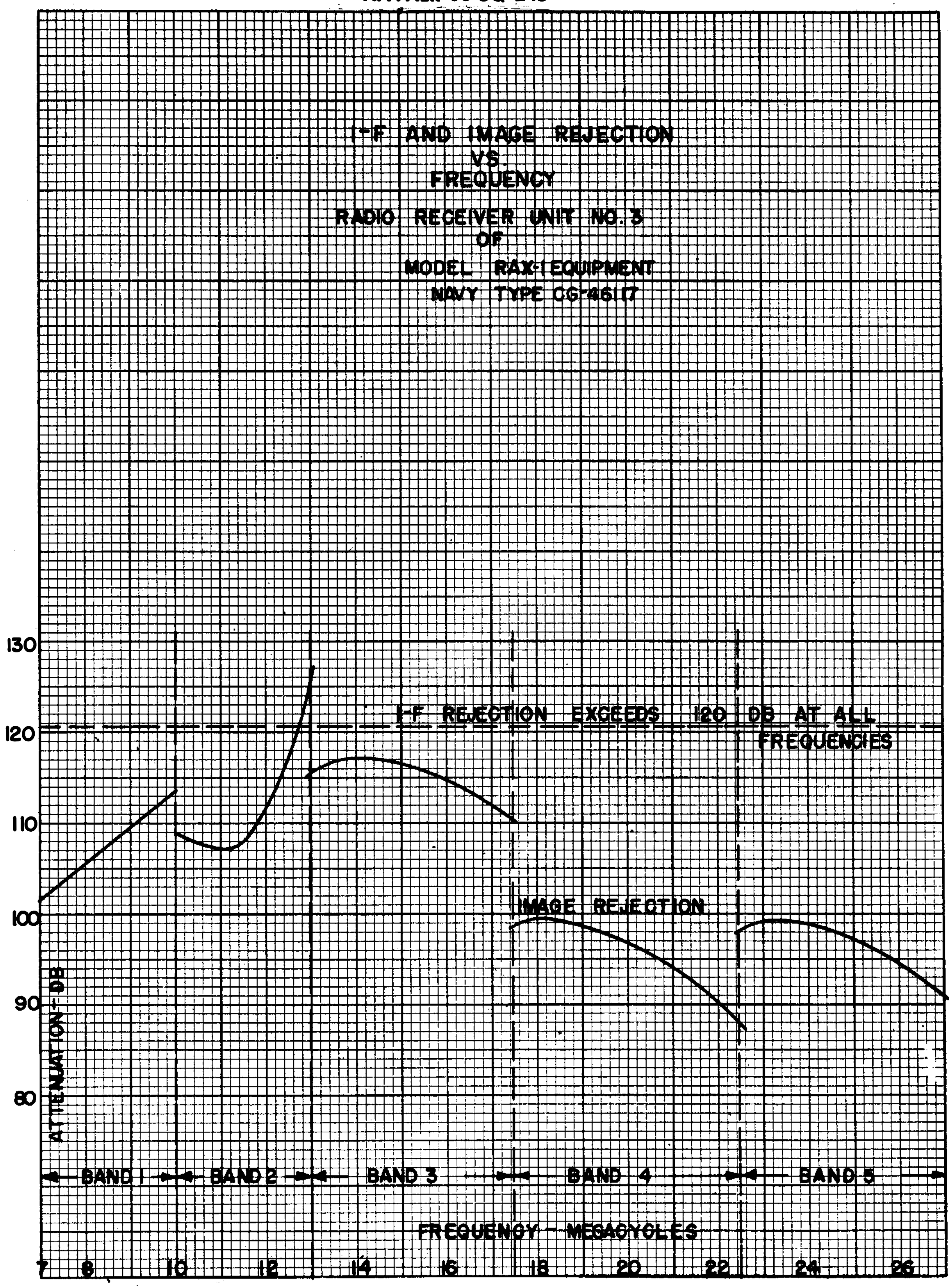
Over-all Selectivity Curve, Band No. 3 and 4

K-7883575



Sensitivity Curve

K-7883576



I-f and Image Rejection

K-7883577

CAPACITORS

C101	70 MMFD	500 V SEE NOTE #1
C102	50 MMFD	TRIMMER
C103	50 MMFD	
C104	50 MMFD	
C105	50 MMFD	TRIMMER
C106	.05 MFD	400 V
C107	.01 MFD	600 V
C108	50 MMFD	500 V
C109A		TT-7660270 G3 TUNING CAPACITOR
C109B		
C109C	△ 320.8 MMFD	
C110	10 MMFD	500 V
C111	.006 MFD	300 V
C112	.05 MFD	400 V
C113	50 MMFD	TRIMMER
C114	50 MMFD	
C115	50 MMFD	
C116	50 MMFD	TRIMMER
C117	2350 MMFD	250V
C118	50 MMFD	500 V
C120	70 MMFD	500 V
C121	50 MMFD	TRIMMER
C122	25 MMFD	500 V
C123	.006 MFD	300 V
C124	150 MMFD	500V
C125	.05 MFD	400 V
C126	50 MMFD	500V SEE NOTE #1
C127	50 MMFD	TRIMMER
C129	50 MMFD	TRIMMER
C131	50 MMFD	TRIMMER
C132	15 MMFD	CERAMICON
C133	50 MMFD	TRIMMER
C134	500 MMFD	250 V
C135	30 MMFD	250 V
C136	15 MMFD	CERAMICON
C138	.05 MFD	400 V
C139	500 MMFD	250 V
C140	50 MMFD	250 V
C141	75 MMFD	TRIMMER
C142	730 MMFD	250 V
C144	.05 MFD	400 V
C145	.05 MFD	400 V
C146	50 MMFD	250 V
C147	600 MMFD	250 V
C148	1100 MMFD	250 V
C149	600 MMFD	250 V
C150	100 MMFD	250 V
C151	.05 MFD	400 V
C152	375 MMFD	250 V
C153	375 MMFD	250 V
C154	.006 MFD	300 V
C155	.006 MFD	300 V
C157	.01 MFD	600 V
C159	.006 MFD	300 V
C160A	16 MFD	250 V
C160B	16 MFD	250 V
C160C	16 MFD	250 V
C161	50 MMFD	500 V
C162	600 MMFD	250 V
C163	650 MMFD	250 V
C164	.006 MFD	300 V
C165	370 MMFD	250 V
C166	900 MMFD	250 V
C167	.006 MFD	300 V
C168	.006 MFD	300 V
C169	.05 MFD	400 V
C170	.006 MFD	300 V
C171	400 MMFD	500 V
C176	.25 MFD	600 V
C177	50 MFD	25 V
C178	.004 MFD	500 V
C179	.006 MFD	300 V
C180	.0025 MFD	500 V
C172	500 MMFD	500 V
C173	.5 MFD	600 V

C183	.0025 MFD	500V
C184	25 MFD	50 V
C191	100 MMFD	500V
C192	100 MMFD	500V
C193	2350 MMFD	250V
C194	50 MMFD	TRIMMER
C195	25 MMFD	500 V
C196	25 MMFD	500 V
C197	25 MMFD	TRIMMER
C198	25 MMFD	500 V
C199	150 MMFD	500 V
C119	70 MMFD	500 V

NOTE #1 ON NAVY MODEL RAX-1, C101 IS REPLACED BY C126

DYNAMOTOR

D101 K 7876461 P1

FUSE

F101 4 AMP

PHONE JACK

J101 M 7461865 G1

CHOKES

L103	K-7877090
L104	K 7877075
L105	K 7877089
L106	INCLUDED IN Z102
L107	INCLUDED IN Z101
L108	M 7464808 G1
L109	K7879066

POWER PLUG

P101 K 7876934 P1

Schematic Diagram, Type CG-46115 Receiver Unit No. 1

W-7350826

RESISTORS

R102	0.1 MEGOHM	1/2 WATT
R103	1.0 MEGOHM	
R105	750 OHMS	
R106	22,000	
R107	12,000	
R108	12,000	
R109	1,000 OHMS	1/2 WATT
R110	5,000 OHMS	M-7464322 P1
R111	1200 OHMS	1/2 WATT
R126	10,000	1/2 WATT
R127	330,000	
R128	68,000	
R129	220,000	
R130	390	
R131	62,000	
R132	12,000 OHMS	
R133	.15MEGOHMS	1/2 WATT
R134	.10MEGOHMS	1/2 WATT
R151	750 OHMS	1/2 WATT
R152A	20,000 OHMS	M-7464321 P1
R152B	800,000 OHMS	
R154	68,000 OHMS	1 WATT
R155	1 MEGOHM	1/2 WATT
R157	15,000 OHMS	1 WATT
R158	1,000 OHMS	1/2 WATT
R159	.47MEGOHMS	
R160	750 OHMS	
R161	39,000 OHMS	
R162	1.5 MEGOHMS	
R163	750 OHMS	
R164	47,000 OHMS	
R165	.33MEGOHMS	
R167	1.0 MEGOHMS	
R168	510 OHMS	
R169	330 OHMS	1/2 WATT
R177	390 OHMS	1 WATT
R178	510 OHMS	1/2 WATT
R166	30,000 OHMS	1 WATT
R170	47,000 OHMS	1/2 WATT

SWITCHES

S101A,B,C	M7464376 P3
S102A,C,D	M7464292 P2
S103A,B	M7464292 P1
S105A,B,C,D	M7464376 P3
S106A,B,C,D	M7464376 P1

TRANSFORMERS

T101	K 7877350
T102	K 7877351
T103	K 7877352
T104	K 7877353
T105	K 7877354
T106	K 7877355
T107	K 7877356
T108	K 7877357
T109	P 7763100 G1
T110	K 7877358
T111	K 7877359
T112	K 7877360
T113	K 7877361
T114	T 7661130 G1
T116	P 7763102 G1
* T117	K 7878235

* T117 K-7877947 USED ON NAVY MODEL RAX-1.

TUBES

V101	12SK7	RF AMP.
V102	12K8	CONVERTER
V103	12SK7	I.F. AMP.
V104	12SK7	I.F. AMP.
V105	12A6	OUTPUT
V106	12SR7	B.F.O. AND 2ND. DET
V107	CD-1010-CL	

TUBE SOCKETS

X101	K 7874006
X102	K 7874006
X103	K 7874006
X104	K 7874006
X105	K 7874006
X106	K 7874006

Z101	WAVE TRAP P-7763184 G1
Z102	WAVE TRAP P-7763185 G1

Schematic Diagram, Type CG-46115 Receiver Unit No. 1

W-7350826

CAPACITORS

C 201	50	MMFD	500 V.
C 202	50	MMFD	TRIMMER
C 203	50	MMFD	TRIMMER
C 204	50	MMFD	TRIMMER
C 205	100	MMFD	500 V
C 206	50	MMFD	M 7464331 P9
C 207	25	MMFD	500 V
C 208A			TT-7660270 G2 TUNING CAP
C 208B			TT-7660270 G2 TUNING CAP
C 208C			TT-7660270 G2 TUNING CAP
C 208D△	209.9	MMFD	TT-7660270 G2 TUNING CAP
C 209	31	MMFD	TRIMMER
C 210	.006	MFD	300 V
C 211	.006	MFD	300 V
C 212	.006	MFD	300 V
C 213	50	MMFD	TRIMMER
C 214	50	MMFD	TRIMMER
C 215	50	MMFD	TRIMMER
C 216	50	MMFD	TRIMMER
C 217	50	MMFD	500 V
C 218	9500	MMFD	300 V
C 219	100	MMFD	500 V
C 220	.01	MFD	300 V
C 221	.01	MFD	300 V
C 222	50	MFD	25 V
C 223	50	MMFD	TRIMMER
C 224	50	MMFD	TRIMMER
C 225	50	MMFD	TRIMMER
C 226	50	MMFD	TRIMMER
C 227	50	MMFD	500 V
C 228	.01	MFD	300 V
C 229	100	MMFD	500 V
C 230	.006	MFD	300 V
C231	.01	MFD	300 V
C 232	.006	MFD	300 V
C233	50	MMFD	250 V
C234	500	MMFD	500 V
C235	500	MMFD	250 V
C236	500	MMFD	250 V
C237	.006	MFD	300 V
C238	25	MMFD	CERAMICON
C239	50	MMFD	TRIMMER
C240	.006	MFD	300 V
C241	50	MMFD	TRIMMER
C243	50	MMFD	TRIMMER
C245	50	MMFD	TRIMMER
C246	40	MMFD	250 V
C247	.05	MFD	400 V
C248	500	MMFD	500 V
C249	50	MMFD	250 V
C250A-B	40	MMFD	TRIMMER
C251	230	MMFD	250 V
C252	15	MMFD	CERAMICON
C253	.006	MFD	300 V
C254	20	MMFD	500 V
C255	.01	MFD	300 V
C256A	12	MFD	50 V
C257	500	MMFD	250 V
C258	500	MMFD	250 V
C259	.01	MFD	600 V
C 260	.01	MFD	300 V
C261	.05	MFD	400 V
C262	.006	MFD	300 V
C263	.006	MFD	300 V
C 264 A	16	MFD	250 V
C 264 B	16	MFD	250 V
C 264 C	16	MFD	250 V
C 265	.01	MFD	300 V
C 242	.01	MFD	300 V
C 244	9500	MMFD	300 V
C266	.006	MFD	300 V
C267	.01	MFD	300 V
C268	500	MMFD	250 V
C269	560	MMFD	250 V
C270	.006	MFD	300 V
C271	.006	MFD	300 V
C272	10	MMFD	500 V
C273	.01	MFD	300 V
C274	.006	MFD	300 V
C275	.01	MFD	300 V
C276	200	MMFD	500 V
C277	100	MMFD	500 V
C278	525	MMFD	250 V
C279	215	MMFD	250 V
C280	300	MMFD	500 V
C281	.006	MFD	300 V
C282	.0025	MFD	500 V
C283	10	MMFD	500 V
C284	.01	MFD	300 V
C285	10	MMFD	500 V
C286	50	MMFD	500 V
C287	100	MMFD	500 V
C288	612	MMFD	250 V
C289	730	MMFD	250 V
C290	1197	MMFD	250 V
C291	2390	MMFD	250 V
C292	.006	MFD	300 V
C293	.01	MFD	300 V
C256B	12	MFD	50 V
C295	100	MMFD	500 V
C296	10	MMFD	500 V
C297	2390	MMFD	250 V
C298	2390	MMFD	250 V
C299	20	MMFD	500 V
C1201	50	MMFD	500 V
C1202	23	MMFD	500 V
C1203	.01	MFD	300 V
C1204	100	MMFD	500 V
C1205	.006	MFD	300 V
C1206	.006	MFD	300 V

CHOKES

L 205	K 7877090
L 206	K 7877075
L 207	K 7877089
L 208	M 7464808 G-1
L 209	M 7464921 G-1
L 210	P 7763160 G-1
L 211	M 7464808 G-1

PLUG

P201 K-7876934 P1

DYNAMOTOR

D 201 K 7876461 P1

FUSE

F 201 4 AMPS

JACK

J 201 M 7461865 G-1

Schematic Diagram, Type CG-46116 Receiver Unit No. 2

WW-7350184

RESISTORS

R202	1 MEGOHM	1/2 WATT
R203	820 OHMS	
R204	620 OHMS	
R205	2200 OHMS	
R206	1 MEGOHM	
R207	300 OHMS	
R208	3000	
R209	1200	1/2 WATT
R210	390	1 WATT
R211	2200 OHMS	1/2 WATT
R212	1 MEGOHM	
R213	330 OHMS	
R214	39,000	
R215	12,000	
R216	51,000	
R217	47,000	
R218	15,000	1/2 WATT
R219	120,000	1/2 WATT
R220	1200	1/2 WATT
R221	47,000	
R222	39,000	
R223	200,000	
R224	300 OHMS	
R225	1 MEGOHM	1/2 WATT
R226	11000 OHMS	1 WATT
R251	82,000 OHMS	1/2 WATT
R252	11000 OHMS	1 WATT
R253	510 OHMS	1/2 WATT
R227	2,200 OHMS	1/2 WATT
R228A	6250	M 7464321 P2
R228B	800,000	M 7464321 P2
R229	2200	1/2 WATT
R230	82,000	
R231	82,000	
R232	510	
R233	470,000	
R234	24,000	
R235	820	
R236	39,000	
R237	300,000	
R239	300	
R240	82,000	
R241	12,000	
R242	51,000	
R244	82,000	
R245	47,000	1/2 WATT
R246	33,000	1 WATT
R247	24,000 OHMS	1/2 WATT
R248	510 OHMS	1/2 WATT
R243	2000 OHMS	1/2 WATT
R238	12,000 OHMS	1/2 WATT
R249	39,000 OHMS	1/2 WATT
R250	5600 OHMS	1/2 WATT

SWITCHES

S201A-B-C-D	M7464376 P3
S202A-B-C-D	M7464376 P3
S203A-B-C-D	M7464376 P3
S204A-B-C-D	M7464376 P6
S205A-B-C-D	M7464292 P2
S207A-B	M7464292 P1

TRANSFORMERS

T201	K 7877362
T202	K 7877363
T203	K 7877364
T204	K 7877365
T205	K 7877366
T206	K 7877367
T207	K 7877368
T208	K 7877369
T209	P 7763103 G-1
T210	K 7877374
T212	K 7877376
T213	K 7877377
T214	P 7763105 G-1
T215	P 7763104 G-1
T216	P 7763106 G-1
* T217	K 7878235
T219	K 7877370
T220	K 7877371
T221	K 7877372
T222	K 7877373
T211	K 7877375

* T217 K-7877947 USED ON NAVY MODEL RAX-1.

TUBES

V201	12SK7
V202	12SK7
V203	12 H6
V204	12SK7
V205	12SK7
V206	12SK7
V207	12A6
V208	12SR7
V209	CD-10-0-CL

TUBE SOCKETS

X201	K 7874006
X202	
X203	
X204	
X205	
X206	
X207	
X208	K 7874006

Schematic Diagram, Type CG-46116 Receiver Unit No. 2

WW-7350184

CAPACITORS

C 302	50	MMFD	TRIMMER
C 303			
C 304			
C 305			
C 306	50	MMFD	TRIMMER
C 307	.006	MFD	300 V
C 309A			
C 309B	C102 MMFD		TT7560270 G1 TUNING CAPACITOR
C 309C			
C 309D			
C 310	16	MMFD	TRIMMER
C 311	.006	MFD	300 V
C 312	.006	MFD	300 V
C 313	.006	MFD	300 V
C 314	50	MMFD	TRIMMER
C 315			
C 316			
C 317			
C 318	50	MMFD	TRIMMER
C 319	30	MMFD	250 V
C 321A,B	12	MFD	50 V
C 322	.006	MFD	300 V
C 323	.006	MFD	300 V
C 324	10	MMFD	500 V
C 325	50	MMFD	TRIMMER
C 326			
C 327			
C 328			
C 329	50	MMFD	TRIMMER
C 330	400	MMFD	500 V
C 331	30	MMFD	250 V
C 333	.006	MFD	300 V
C 334	.006	MFD	300 V
C 335	.008	MFD	300 V
C 336	25	MMFD	250 V
C 337	500	MMFD	
C 338	300	MMFD	
C 339	300	MMFD	
C 340	500	MMFD	250 V
C 341	25	MMFD	500 V
C 342	A-840	MMFD	TRIMMER
C 343	200	MMFD	250 V
C 344	30	MMFD	CERAMICON
C 345	.006	MFD	300 V
C 346	26	MMFD	CERAMICON
C 347	50	MMFD	TRIMMER
C 348	40	MMFD	250 V
C 349	50	MMFD	TRIMMER
C 350	70	MMFD	250 V
C 351	50	MMFD	TRIMMER
C 352	25	MMFD	250 V
C 353	50	MMFD	TRIMMER
C 354	5	MMFD	CERAMICON
C 355	50	MMFD	TRIMMER
C 358	100	MMFD	500 V
C 359	.01	MFD	300 V
C 360	.006	MFD	300 V
C 361	300	MMFD	250 V
C 362	300	MMFD	250 V
C 363	.01	MFD	300 V
C 364	.006	MFD	300 V
C 365	.006	MFD	300 V
C 367	.006	MFD	300 V
C 368A	18	MFD	250 V
C 368B	16	MFD	250 V
C 368C	16	MFD	250 V
C 370	.01	MFD	300 V
C 372	.006	MFD	300 V
C 373	.006	MFD	300 V
C 374	50	MFD	25 V
C 375	.01	MFD	300 V
C 371	.01	MFD	300 V
C 376	.006	MFD	300 V
C 377	.01	MFD	300 V
C 378	350	MMFD	250 V
C 379	350	MMFD	250 V
C 380	.006	MFD	300 V
C 381	400	MMFD	250 V
C 382	300	MMFD	250 V
C 383	50	MMFD	500 V
C 384	175	MMFD	250 V
C 385	.006	MFD	300 V
C 386	100	MMFD	250 V
C 387	.004	MFD	300 V
C 388	.006	MFD	300 V
C 389	1·00	MMFD	500 V
C 390	.006	MFD	300 V
C 391	690	MMFD	250 V
C 392	1325	MMFD	250 V
C 393	.006	MFD	300 V
C 395	.006	MFD	300 V
C 396	50	MMFD	500 V
C 397	1720	MMFD	250 V
C 398	2450	MMFD	
C 399	1720	MMFD	
C 400	2600	MMFD	250 V
C 401	1720	MMFD	250 V
C 402	2600	MMFD	250 V
C 403	400	MMFD	500 V
C 405	40	MMFD	250 V
C 406	50	MMFD	
C 407	120	MMFD	
C 408	40	MMFD	
C 409	30	MMFD	
C 410	75	MMFD	
C 411	40	MMFD	
C 412	30	MMFD	
C 413	75	MMFD	250 V
C 414	.05	MFD	400 V
C 415	10	MMFD	250 V
C 416	10	MMFD	250 V
C 417	.0095	MFD	300 V
C 418	.01	MFD	
C 419	.01	MFD	
C 420	.0095	MFD	300 V
C 422	.01	MFD	300 V

DYNAMOTOR

D 301 K 7876481 P1

FUSE

F 301 4AMP

JACK

J 301 M7461865 G1

CHOKES

L 306	2000 μH	K 7877090
L 307	0.5 H	K 7877075
L 308		K 7877089
L 312	1300 UH	K 7877552
L 314		M 7464808 G1
L 315		P 7783160 G1

RESISTORS

R 302	220	OHMS	1/2	WATT
R 303	2200			
R 304	1000			
R 305	2200			
R 306	470,000			
R 307	220		1/2	WATT
R 308	2500		M 7464322 P2	
R 309	1000	OHMS	1/2	WATT
R 310	47,000	OHMS	1.0	WATT
R 311	2200	OHMS	1/2	WATT
R 312	470,000	OHMS	1/2	WATT
R 313	330	OHMS	1/2	WATT
R 314	12,000	OHMS	1/2	WATT
R 315	8200		1	
R 316	68,000		1/2	
R 317	47,000		1/2	
R 320	390		1	
R 321	82,000	OHMS	1	
R 322	1,000,000	OHMS	1/2	
R 323	560	OHMS	1/2	
R 324	9100		1/2	
R 325	6800		1/2	WATT
R 326A	8250		M-7464321 P2	
R 326B	800,000			
R 328	2700		1	WATT
R 329	330		1/2	
R 330	470,000			
R 331	470,000			
R 332	18,000			
R 333	820			
R 334	330,000			
R 336	51,000			
R 337	820			
R 338	12,000			
R 339	150,000			
R 340	1000			
R 341	47,000		1/2	
R 342	33,000		1	
R 343	390		1/2	
R 344	2700	OHMS	1	WATT
R 345	1000	OHMS	1/2	WATT
R 346	68000	OHMS	1/2	WATT
R 347	24000	OHMS	1/2	WATT
R 348	2200	OHMS	1/2	WATT
R 349	1000	OHMS	1/2	WATT

NOTE:- IN MODEL RAX-1, R325 IS REPLACED BY R324.

Schematic Diagram, Type CG-46117 Receiver Unit No. 3

WW-7350185

SWITCHES

S301A-B-C	M 7464378	PT-4
S302A-B-C	M 7464292	PT-2
S303A-B	M 7464292	PT-1
S305A-B-C-D	M 7464376	PT-4
S306A-B-C-D	M 7464376	PT-4
S307A-B-C-D	M 7464378	PT-2

TRANSFORMERS

T301	K7877378
T302A, T302B	K7877379
T304	K7877380
T305	K7877381
T306	K7877382
T307A, T307B	K7877383
T309	K7877384
T310	K7877385
T311	P7763107 81
T312	P7763109 G1
T314	K7877390
T315	K7877391
T316	K7877392
T317	K7877393
T318	K7877394
T319	P7763108 81
T321	P7763110 81
* T322	K7878235
T324	K7877386
T325A, T325B	K7877387
T327	K7877388
T328	K7877389

* T322 K-7877947 USED ON NAVY MODEL RAX-1

TUBE SOCKETS

X 301	K 7874006
X 302	
X 303	
X 304	
X 305	
X 306	
X 307	
X 308	K 7874006

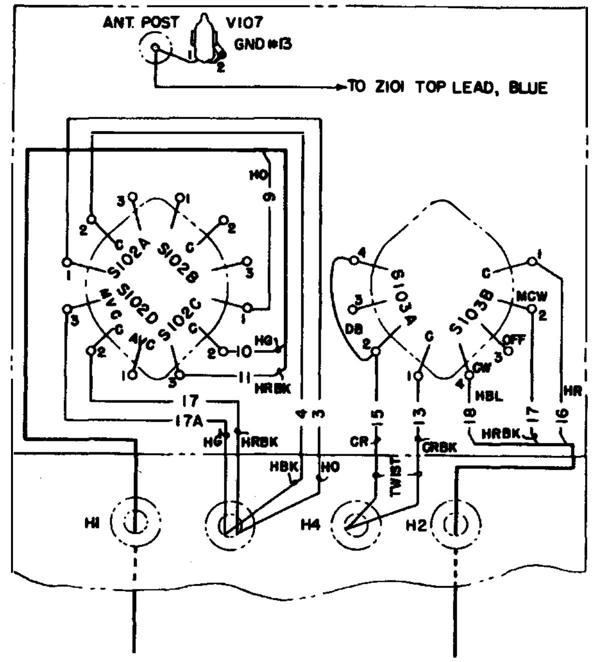
TUBES

V301	12SK7
V302	12K8
V303	12SK7
V304	12SK7
V305	12SK7
V306	12A6
V307	12SR7
V308	12SK7
V309	CD-1010-CL

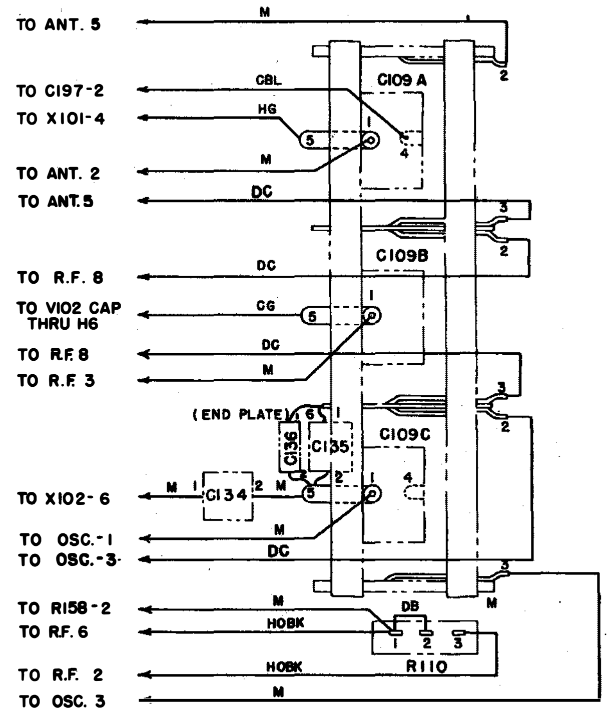
Schematic Diagram, Type CG-46117 Receiver Unit No. 3

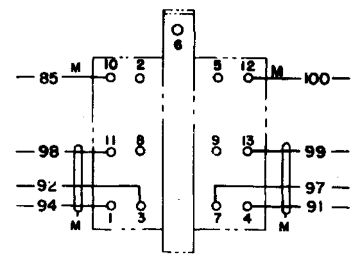
WW-7350185

PARTIAL REAR VIEW OF FRONT PANEL

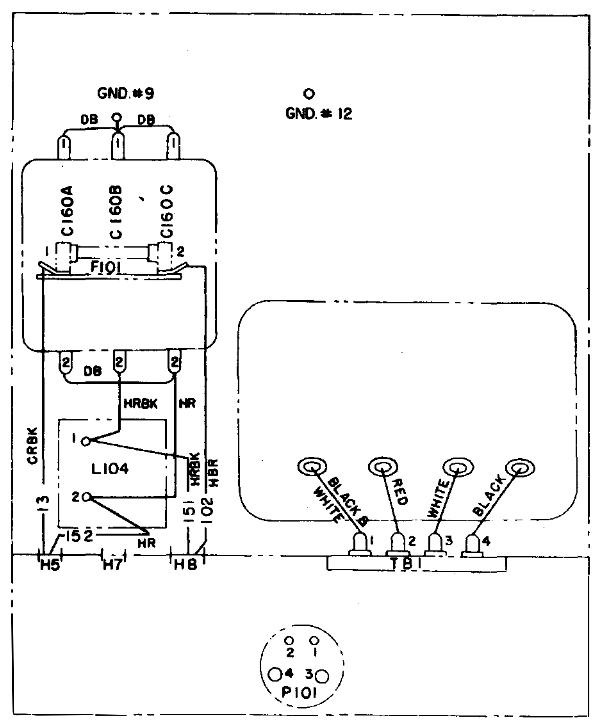


TUNING CAPACITOR
THIS SURFACE SHOWN IS NEXT TO
METAL SUBBASE





TERMINAL BOARD FOR T 114



REAR VIEW OF CHASSIS, ALL SHIELDS REMOVED

Connection Diagram, Type CG-46115 Receiver Unit No. 1

W-7350828

CAPACITORS

C106 .05 MFD 400 V.
C107 .01 MFD 600 V.
C109A } TT-7660270G3
C109B } TUNING CAPACITOR
C109C Δ 3208 MMFD
C111 .006 MFD 300 V.
C112 .05 MFD 400 V.
C119 70 MMFD 500 V. INCLUDED IN Z101
C121 50 MMFD TRIMMER INCLUDED IN Z102
C123 .006 MFD 300 V.
C125 .05 MFD 400 V.
C134 500 MFD 250 V.
C135 30 MMFD 250 V.
C138 .05 MFD 400 V.
C139 500 MMFD 250 V. INCLUDED IN T114
C140 50 MMFD 250 V.
C141 75 MMFD TRIMMER
C142 730 MMFD 250 V. INCLUDED IN T114

C144 .05 MFD 400 V.
C145 .05 MFD 400 V.
C146 50 MMFD 250 V.
C151 .05 MFD 400 V.
C152 375 MMFD 250 V. INCLUDED IN T109
C153 375 MMFD 250 V. INCLUDED IN T109
C154 .006 MFD 300 V.
C155 .006 MFD 300 V.
C157 .01 MFD 600 V.
C159 .006 MFD 300 V.
C160A 16 MFD 250 V.
C160B 16 MFD 250 V.
C160C 16 MFD 250 V.
C161 50 MMFD 500 V. INCLUDED IN T116
C162 600 MMFD 250 V. INCLUDED IN T116
C163 650 MMFD 250 V. INCLUDED IN T116
C164 .006 MFD 300 V.
C165 370 MMFD 250 V. INCLUDED IN T114
C166 900 MMFD 250 V. INCLUDED IN T114
C167 .006 MFD 300 V.
C168 .006 MFD 300 V.
C169 .05 MFD 400 V.
C170 .006 MFD 300 V.
C171 400 MMFD 500 V. INCLUDED IN T116.
C172 500 MMFD 500 V.
C173 .5 MFD 600 V.
C176 .25 MFD 600 V.
C177 50 MFD 25 V.
C178 .004 MFD 300 V.
C179 .006 MFD 300 V.
C180 .0025 MFD 500 V.
C183 .0025 MFD 500 V.
C184 25 MFD 50 V.
C194 50 MMFD TRIMMER INCLUDED IN Z101
C197 25 MMFD TRIMMER
C136 15 MMFD CERAMICON

* T117 K-7877947 USED ON NAVY MODEL RAX-1.

CONNECTION	DESCRIPTION
CBK	* 16 AWG, STRANDED, 1/64" RUBBER INSULATION, BLACK LACQUERED BRAID, O.D. - .135" G.E. DWG. K-7872345 P.2
CBL	* 16 AWG, STRANDED, 1/64" RUBBER INSULATION, BLUE LACQUERED BRAID, O.D. - .135" G.E. DWG. K-7872345 P.6
CBR	* 16 AWG, STRANDED, 1/64" RUBBER INSULATION, BROWN LACQUERED BRAID, O.D. - .135" G.E. DWG. K-7872345 P.3
CG	* 16 AWG, STRANDED, 1/64" RUBBER INSULATION, GREEN LACQUERED BRAID, O.D. - .135" G.E. DWG. K-7872345 P.5
CR	* 16 AWG, STRANDED, 1/64" RUBBER INSULATION, RED LACQUERED BRAID, O.D. - .135" G.E. DWG. K-7872345 P.4
CRBK	* 16 AWG, STRANDED, 1/64" RUBBER INSULATION, RED/BLK. LACQUERED BRAID, O.D. - .135" G.E. DWG. K-7872345 P.8
DB	.040" DIA. COPPER WIRE TINNED
DC	.061" DIA. COPPER WIRE TINNED
HBR	\#22 AWG. WHITE WITH BROWN TRACER G.E. DWG. K-7875044 P.3
HBK	* 22 AWG. WHITE WITH BLACK TRACER G.E. DWG. K-7875044 P.2
HBL	* 22 AWG. WHITE WITH BLUE TRACER G.E. DWG. K-7875044 P.6
HG	* 22 AWG. WHITE WITH GREEN TRACER G.E. DWG. K-7875044 P.5
HO	* 22 AWG. WHITE WITH ORANGE TRACER G.E. DWG. K-7875044 P.1
HOBK	* 22 AWG. WHITE WITH ONE ORANGE AND ONE BLACK TRACER. G.E. DWG. K-7875044 P.7
HR	* 22 AWG. WHITE WITH RED TRACER G.E. DWG. K-7875044 P.4
HRBK	* 22 AWG. WHITE WITH ONE RED AND ONE BLACK TRACER, G.E. DWG. K-7875044 P.8
"M" OR UNMARKED	UNIT PIECE OF APPARATUS

DYNAMOTOR

D101 K-7876461 P1

FUSE

F101 4 AMPERES

PHONE JACK

J101 M-7461865 G1

CHOKES

L103 K-7877090
L104 K-7877075
L105 K-7877089
L106 INCLUDED IN Z102
L107 INCLUDED IN Z101
L108 M-7464808 G-1
L109 K-7879066

POWER PLUG

P101 K-7876934 P1

RESISTORS

R105 750 OHMS 1/2 WATT
R106 22,000 OHMS 1/2 WATT
R110 5,000 OHMS M-7464322 P1
R126 10,000 OHMS 1/2 WATT
R127 330,000 OHMS 1/2 WATT INCLUDED IN T114
R128 68,000 OHMS 1/2 WATT
R129 220,000 OHMS 1/2 WATT INCLUDED IN T114
R130 390 OHMS 1/2 WATT
R131 62,000 OHMS 1/2 WATT
R132 12,000 OHMS 1/2 WATT
R133 .15 MEGOHMS 1/2 WATT
R134 0.1 MEGOHMS 1/2 WATT
R151 750 OHMS 1/2 WATT
R152A 20,000 OHMS } M-7464321 P1
R152B 800,000 OHMS }
R154 68,000 OHMS 1 WATT
R155 1 MEGOHM 1/2 WATT
R157 15,000 OHMS 1 WATT
R158 1,000 OHMS 1/2 WATT
R159 .47 MEGOHMS 1/2 WATT
R160 750 OHMS 1/2 WATT
R161 39,000 OHMS 1/2 WATT
R162 1.5 MEGOHMS 1/2 WATT
R163 750 OHMS 1/2 WATT
R164 47,000 OHMS 1/2 WATT INCLUDED IN T116
R165 .33 MEGOHMS 1/2 WATT
R166 30,000 OHMS 1 WATT
R167 1 MEGOHM 1/2 WATT
R168 510 OHMS 1/2 WATT
R169 330 OHMS 1/2 WATT
R170 47,000 OHMS 1/2 WATT
R177 390 OHMS 1 WATT
R178 510 OHMS 1/2 WATT

SWITCHES

S102A,C,D M-7464292 P2
S103A,B M-7464292 P1

TRANSFORMERS

T109 P-7763100 G1
T114 T-7661130 G1
T116 P-7763102 G1
* T117 K-7878235

TUBES

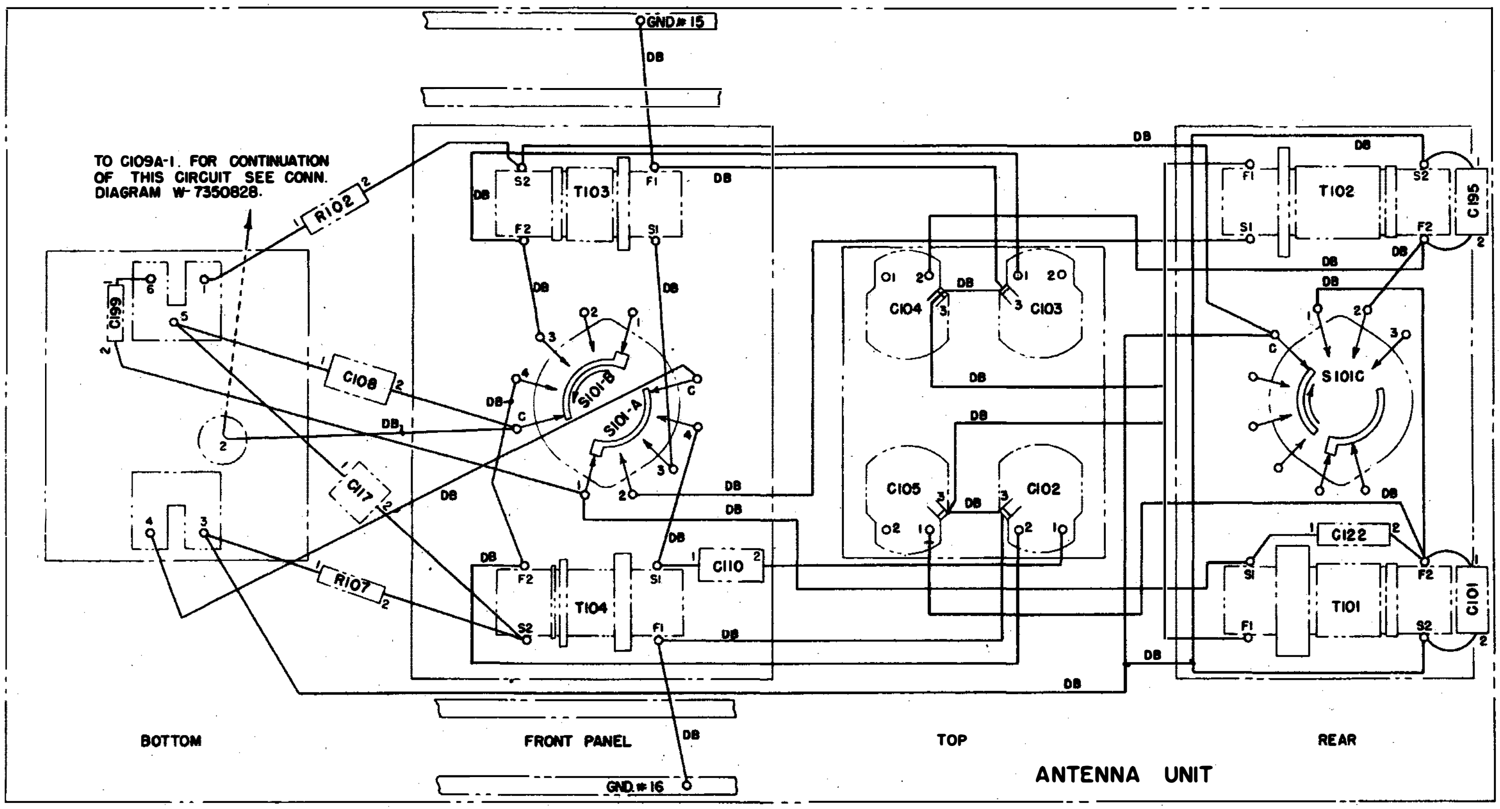
V101 12SK7 RF AMP.
V102 12K8 CONVERTER
V103 12SK7 I.F. AMP.
V104 12SK7 I.F. AMP.
V105 12A6 OUTPUT
V106 12SR7 B.F.O. AND 2ND. DET.
V107 CD-1010-CL

TUBE SOCKETS

X101 K-7874006
X102 K-7874006
X103 K-7874006
X104 K-7874006
X105 K-7874006
X106 K-7874006

Z101 WAVE TRAP P-7763184 G1
Z102 WAVE TRAP P-7763185 G1

W-7350828 Connection Diagram, Type CG-46115 Receiver Unit No. 1

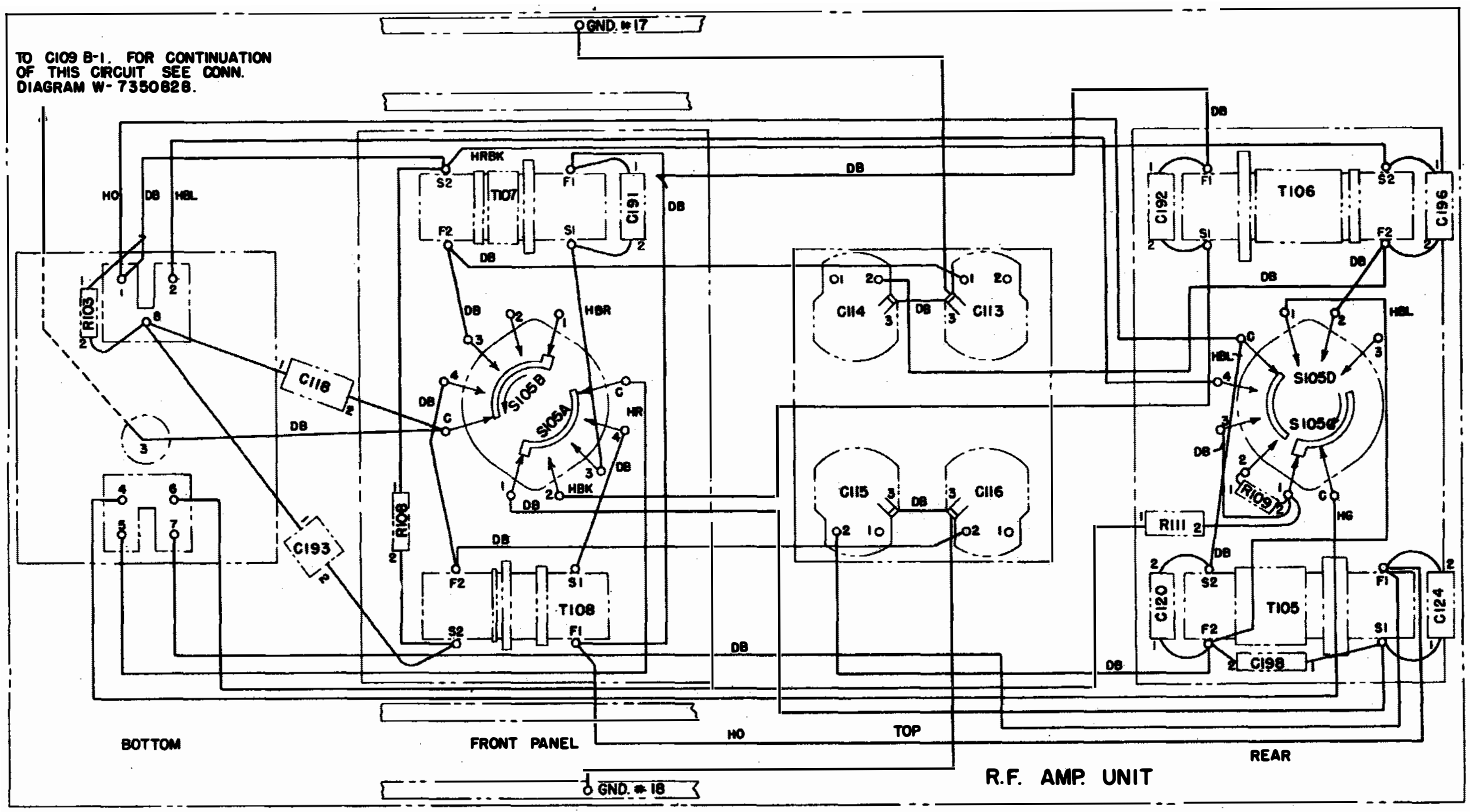


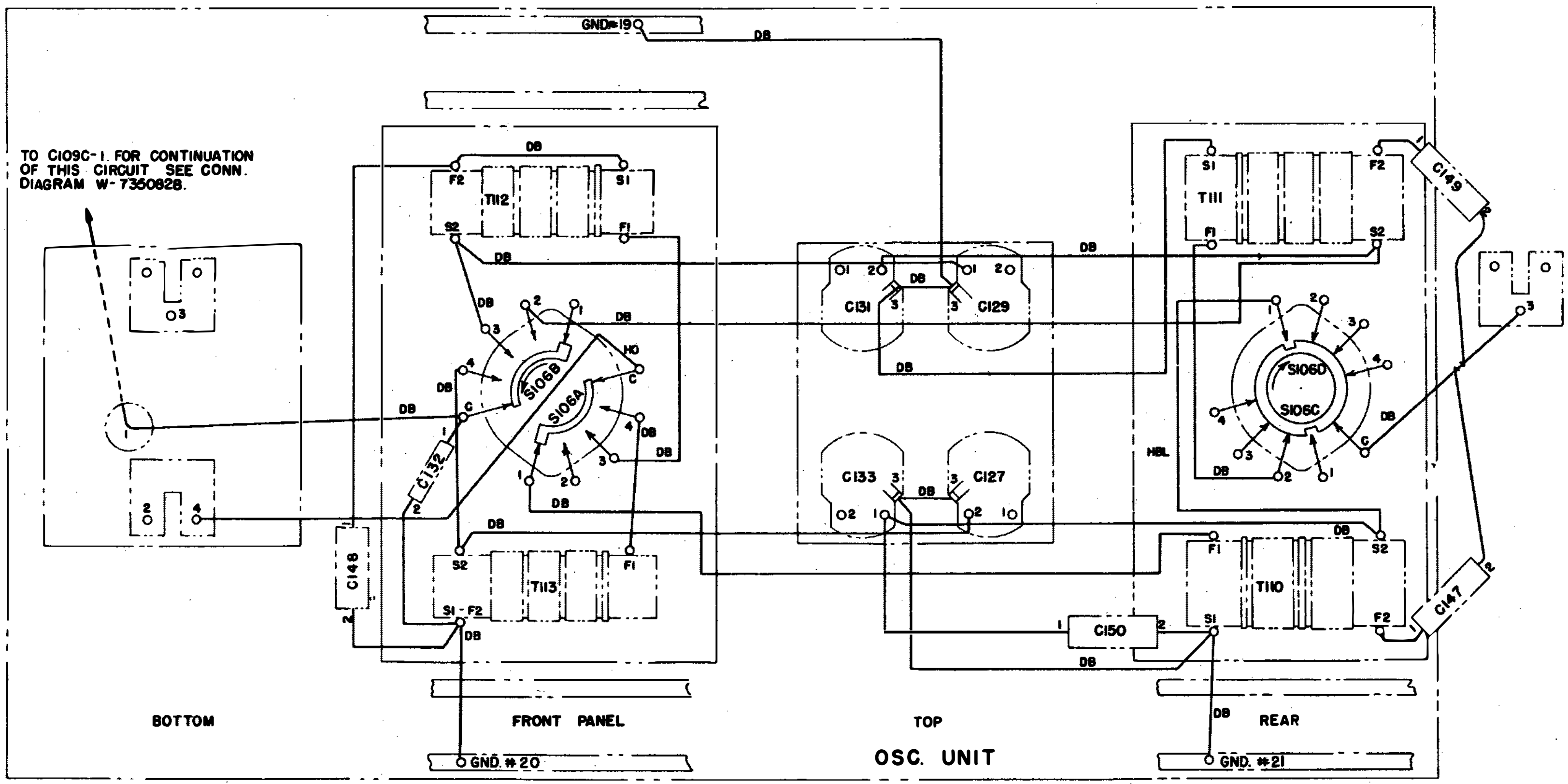
Connection Diagram, R-f Units, Type CG-46115 Radio Receiver No. 1

W-7350840

W-7350840

Connection Diagram, R-f Units, Type CG-46115 Radio Receiver No. 1





Connection Diagram, R-f Units, Type CG-46115 Radio Receiver No. 1

CONNECTIONS	
WIRE SIZE	DESCRIPTION
UNMARKED	UNIT PIECE OF APPARATUS
DB	.040" DIA. COPPER WIRE TINNED
HO	#22 AWG, IMPREGNATED DOUBLE CELLULOSE ACETATE BRAID INSULATION, WHITE WITH ORANGE TRACER, G.E. SPEC. K-7875044 P.1
HBK	#22 AWG, IMPREGNATED DOUBLE CELLULOSE ACETATE BRAID INSULATION, WHITE WITH BLACK TRACER, G.E. SPEC. K-7875044 P.2
HBR	#22 AWG, IMPREGNATED DOUBLE CELLULOSE ACETATE BRAID INSULATION, WHITE WITH BROWN TRACER, G.E. SPEC. K-7875044 P.3
HR	#22 AWG, IMPREGNATED DOUBLE CELLULOSE ACETATE BRAID INSULATION, WHITE WITH RED TRACER, G.E. SPEC. K-7875044 P.4
HG	#22 AWG, IMPREGNATED DOUBLE CELLULOSE ACETATE BRAID INSULATION, WHITE WITH GREEN TRACER, G.E. SPEC, K-7875044 P.5
HBL	#22 AWG, IMPREGNATED DOUBLE CELLULOSE ACETATE BRAID INSULATION, WHITE WITH BLUE TRACER, G.E. SPEC, K-7875044 P.6
HRBK	#22 AWG, IMPREGNATED DOUBLE CELLULOSE ACETATE BRAID INSULATION, WHITE WITH ONE RED AND ONE BLACK TRACER, G.E. SPEC. K-7875044 P.8

NOTE: THE FOLLOWING PAIRS OF SWITCH POINTS ARE CONNECTED BY .040" BUS WIRE (DB).

S101B-1 AND S101C-1
S101B-2 AND S101C-2
S101B-3 AND S101C-3
S105B-1 AND S105D-1
S105B-2 AND S105D-2
S105B-3 AND S105D-3
S106A-1 AND S106C-1
S106A-2 AND S106C-2
S106A-3 AND S106C-3
S106A-4 AND S106C-4
S106B-1 AND S106D-1
S106B-2 AND S106D-2
S106B-3 AND S106D-3
S106B-4 AND S106D-4

NOTE #1 IN NAVY MODEL RAX-1 C101 IS REPLACED BY C126, 50 MMFD 500 V.

CAPACITORS

C101	70 MMFD	500 V.	SEE NOTE #1
C102	50	TRIMMER	
C103	50		
C104	50		
C105	50	TRIMMER	
C108	50	500 V.	
C110	10	500 V.	
C113	50	TRIMMER	
C114	50		
C115	50		
C116	50	TRIMMER	
C117	2350	250 V.	
C118	50	500 V.	
C120	70		
C122	25		
C124	150	500 V.	
C127	50	TRIMMER	
C129	50	TRIMMER	
C131	50	TRIMMER	
C132	15	CERAMICON	
C133	50	TRIMMER	
C147	600	250 V.	
C148	1100	250 V.	
C149	600	250 V.	
C150	100	250 V.	
C191	100	500 V.	
C192	100	500 V.	
C193	2350	250 V.	
C195	25	500 V.	
C196	25	500 V.	
C198	25	500 V.	
C199	150 MMFD	500 V.	

RESISTORS

R102	0.1 MEGOHM	1/2	WATT
R103	1.0 MEGOHM		
R107	12,000 OHMS		
R108	12,000 OHMS		
R109	1,000 OHMS	1/2	
R111	1,200 OHMS	1/2	WATT

SWITCHES

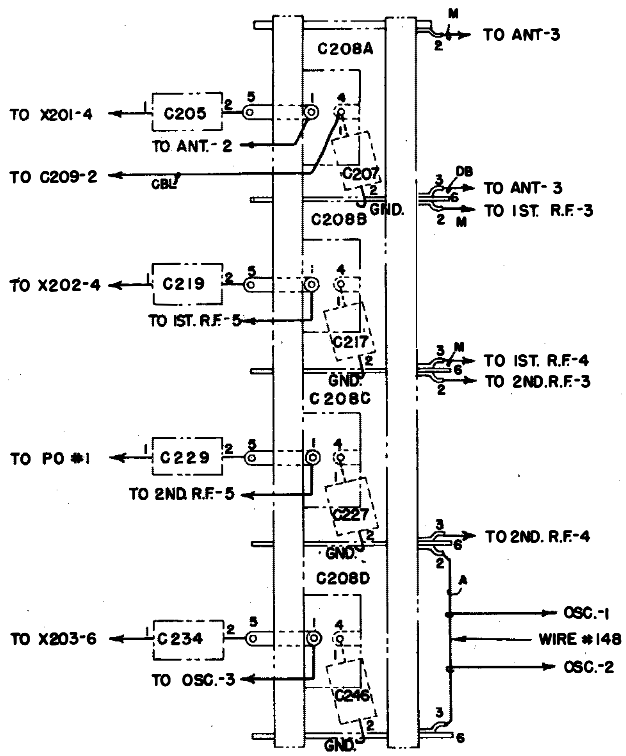
S101 A,B,C	M-7464376	P3
S105A,B,C,D	M-7464376	P3
S106A,B,C,D	M-7464376	P1

TRANSFORMERS

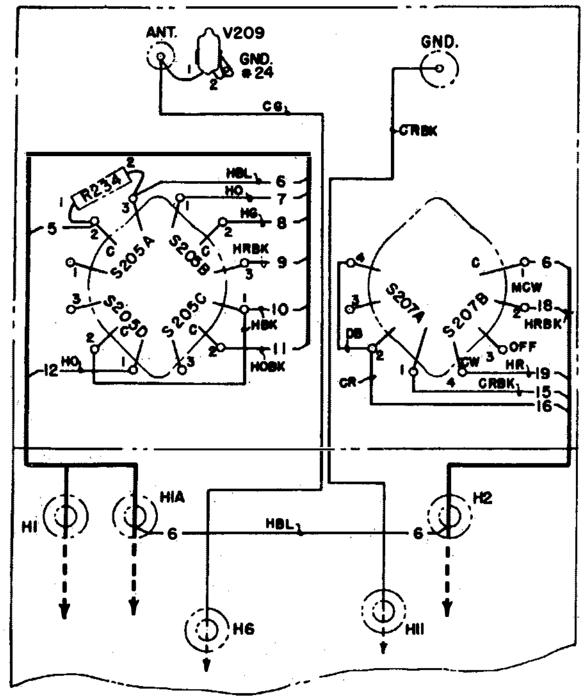
T101	K-7877350
T102	K-7877351
T103	K-7877352
T104	K-7877353
T105	K-7877354
T106	K-7877355
T107	K-7877356
T108	K-7877357
T110	K-7877358
T111	K-7877359
T112	K-7877360
T113	K-7877361

Connection Diagram, R-f Units, Type CG-46115 Radio Receiver No. 1

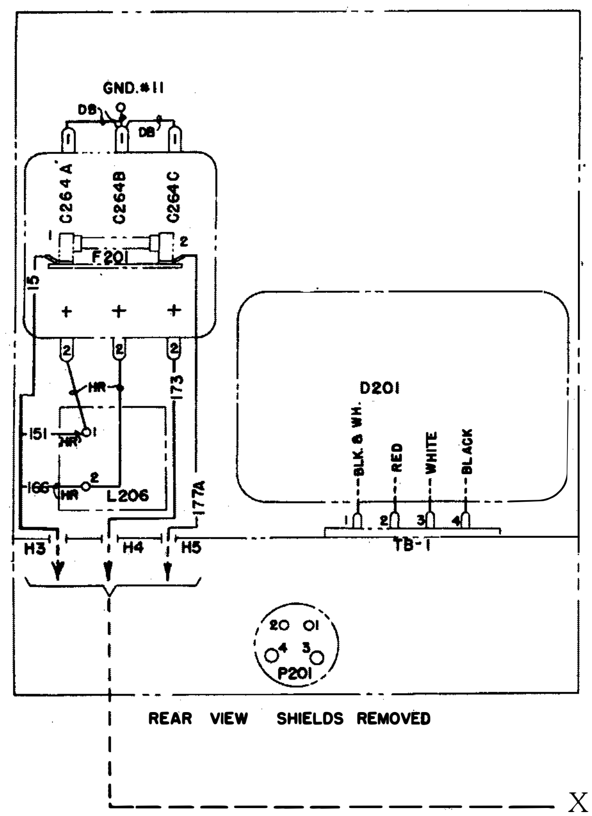
W-7350840



BOTTOM VIEW OF
TUNING CAPACITORS



WIRE SIZE	DESCRIPTION
CBL	#16 AWG,STRANDED,1/64" RUBBER INSULATION, BLUE LACQUERED BRAID, O.D. .135" G.E. SPEC. K-7872345 P6
CBR	#16 AWG,STRANDED,1/64" RUBBER INSULATION, BROWN LACQUERED BRAID O.D. .135" G.E. SPEC. K-7872345 P3
CR	#16 AWG,STRANDED,1/64" RUBBER INSULATION, RED LACQUERED BRAID, O.D. .135" G.E. SPEC. K-7872345 P4
CRBK	#16 AWG,STRANDED,1/64" RUBBER INSULATION, RED BLACK LACQUERED BRAID, O.D. .135" G.E. SPEC. K-7872345 P8
DB	.040" DIA. COPPER WIRE TINNED
HBK	#22 AWG, IMPREGNATED DOUBLE CELLULOSE ACETATE BRAID INSULATION, WHITE WITH BLACK TRACER G.E. SPEC. K-7875044 PT.2
HBL	#22 AWG, WHITE WITH BLUE TRACER, G.E. SPEC. K-7875044 P6
HBR	#22 AWG, WHITE WITH BROWN TRACER, G.E.SPEC. K-7875044 P3
HG	#22 AWG, WHITE WITH GREEN TRACER, G.E. SPEC. K-7875044 P5
HO	#22 AWG, WHITE WITH ORANGE TRACER, G.E. SPEC. K-7875044 P1
HOBK	#22 AWG, WHITE WITH ONE ORANGE AND ONE BLACK TRACER, G.E. SPEC. K-7875044 P7
HR	#22 AWG, WHITE WITH RED TRACER, G.E. SPEC. K-7875044 P4
HRBK	#22 AWG, WHITE WITH ONE RED AND ONE BLACK TRACER, G.E. SPEC. K-7875044 P8
LRBL	2 CONDUCTOR TWISTED PAIR, EACH CONDUCTOR #20 AWG. SOLID ENAMELED, CELLULOSE ACETATE, PURIFIED COTTON BRAID INSULATION, ONE RED AND ONE BLUE COLORED BRAID. TINNED COPPER BRAID OVERALL O.D. .215" G.E. SPEC. K-7875100 P1
M	UNIT PIECE OF APPARATUS
A	.010 X 1/4" COPPER STRIP TINNED



REFERENCE DRAWINGS	
CONN. DIAGRAM R.F. UNITS	W-7350829
SCHEMATIC DIAGRAM	WW-7350184

Connection Diagram, Type CG-46116 Receiver Unit No. 2

CAPACITORS

C207	25	MMFD	500V.
C208A			TT-7660270 G2 TUNING CAP
C208B			
C208C			
C208D	Δ 209.9	MMFD	
C209	31	MMFD	TRIMMER
C210	.006	MFD	300V.
C211	.006	MFD	300V.
C217	50	MMFD	500V.
C218	9500	MMFD	300V.
C219	100	MMFD	500V.
C220	.01	MFD	300V.
C221	.01	MFD	300V.
C222	50	MFD	25V.
C227	50	MMFD	500V.
C228	.01	MFD	300V.
C229	100	MMFD	500V.
C231	.01	MFD	300V.
C232	.006	MFD	300V.
C233	50	MMFD	250V.
C234	500	MMFD	500V.
C235	500	MMFD	250V.
C236	500	MMFD	250V.
C237	.006	MFD	300V.
C240	.006	MFD	300V.
C242	.01	MFD	300V.
C244	9500.	MMFD	300V.
C246	40	MMFD	250V.
C247	.05	MFD	400V.
C248	500	MMFD	500V.
C249	50	MMFD	250V.
C250A-B	40	MMFD	TRIMMER
C251	230	MMFD	250V.
C252	15	MMFD	CERAMICON
C253	.006	MFD	300V.
C255	.01	MFD	300V.
C256A	12	MFD	50V.
C256B	12	MFD	50V.
C257	500	MMFD	250V.
C258	500	MMFD	250V.
C259	.01	MFD	600V.
C260	.01	MFD	300V.
C261	.05	MFD	400V.
C262	.006	MFD	300V.
C263	.006	MFD	300V.
C264A	16	MFD	250V.
C264B	16	MFD	250V.
C264C	16	MFD	250V.
C265	.01	MFD	300V.
C266	.006	MFD	300V.
C267	.01	MFD	300V.
C268	500	MMFD	250V.
C269	560	MMFD	250V.
C270	.006	MFD	300V.
C271	.006	MFD	300V.
C273	.01	MFD	300V.
C274	.006	MFD	300V.
C275	.01	MFD	300V.
C276	200	MMFD	500 V.
C277	100	MMFD	500V.
C278	525	MMFD	250 V.
C279	215	MMFD	250 V.
C280	300	MMFD	500 V.
C281	.006	MFD	300V.
C282	.0025	MFD	500V.
C284	.01	MFD	300V.
C292	.006	MFD	300V.
C293	.01	MFD	300V.
C1202	25	MMFD	500 V.
C1203	.01	MFD	300V.
C1204	100	MMFD	500 V.
C1205	.006	MFD	300 V.
C1206	.006	MFD	300V.

DYNAMOTOR

D201	K-7876461 P1

FUSE

F201	4 AMP.

JACK

J201	M-7461865 G1

PLUG

P201	K-7876934 P1

CHOKES

L205	K-7877090
L206	K-7877075
L207	K-7877089
L208	M-7464808 G1
L210	P-7763160 G1
L211	M-7464808 G1

SWITCHES

S205A-B-C-D	M-7464292 P2
S207A-B	M-7464292 P1

RESISTORS

R202	1 MEGOHM	1/2 WATT
R203	820 OHMS	
R206	1 MEGOHM	
R207	300 OHMS	
R208	3000	
R209	1200	1/2 WATT
R210	390 OHMS	1 WATT
R212	1 MEGOHM	1/2 WATT
R213	330 OHMS	
R214	39,000	
R215	12,000	
R216	51,000	
R217	47,000	
R218	15,000	
R219	120,000	
R220	1200	
R221	47,000	
R222	39,000	
R223	200,000	
R224	300 OHMS	
R225	1 MEGOHM	1/2 WATT
R226	11,000 OHMS	1 WATT
R227	2200	1/2 WATT
R228A	6250	M-7464321 P2
R228B	800,000	M-7464321 P2
R229	2200	1/2 WATT
R230	82,000	
R231	82,000	
R232	510	
R233	470,000	
R234	24,000	
R235	820	
R236	39,000	
R237	300,000	
R238	12,000	
R239	300	
R240	82,000	
R241	12,000	
R242	51,000	
R244	82,000	
R245	47,000	1/2 WATT
R246	33,000	1 WATT
R247	24 000	1/2 WATT
R248	510	
R249	39,000	
R250	5600	1/2 WATT
R252	11,000	1 WATT
R253	510 OHMS	1/2 WATT

TRANSFORMERS

T209	P-7763103 G1
T214	P-7763105 G1
T215	P-7763104 G1
T216	P-7763106 G1
* T217	K-7878235

* T217 K-7877947 USED ON NAVY MODEL RAX-1

TUBES

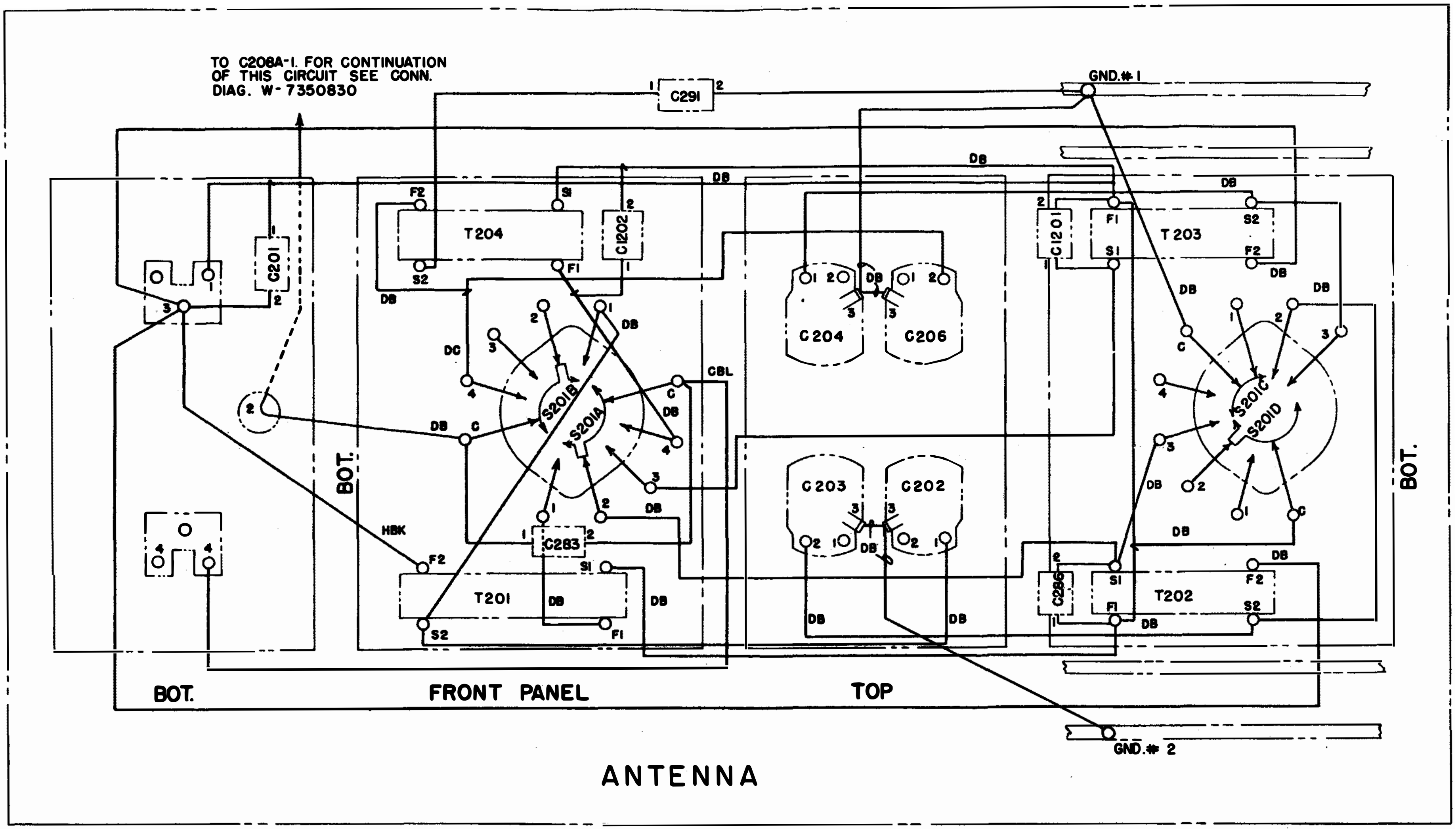
V201	12 SK7
V202	12 SK7
V203	12 K8
V204	12 SK7
V205	12 SK7
V206	12 SK7
V207	12 A6
V208	12 SR7
V209	CD-1010-CL

TUBE SOCKETS

X201	K-7874006
X202	
X203	
X204	
X205	
X206	
X207	
X208	K-7874006

Connection Diagram, Type CG-46116 Receiver Unit No. 2

W-7350830

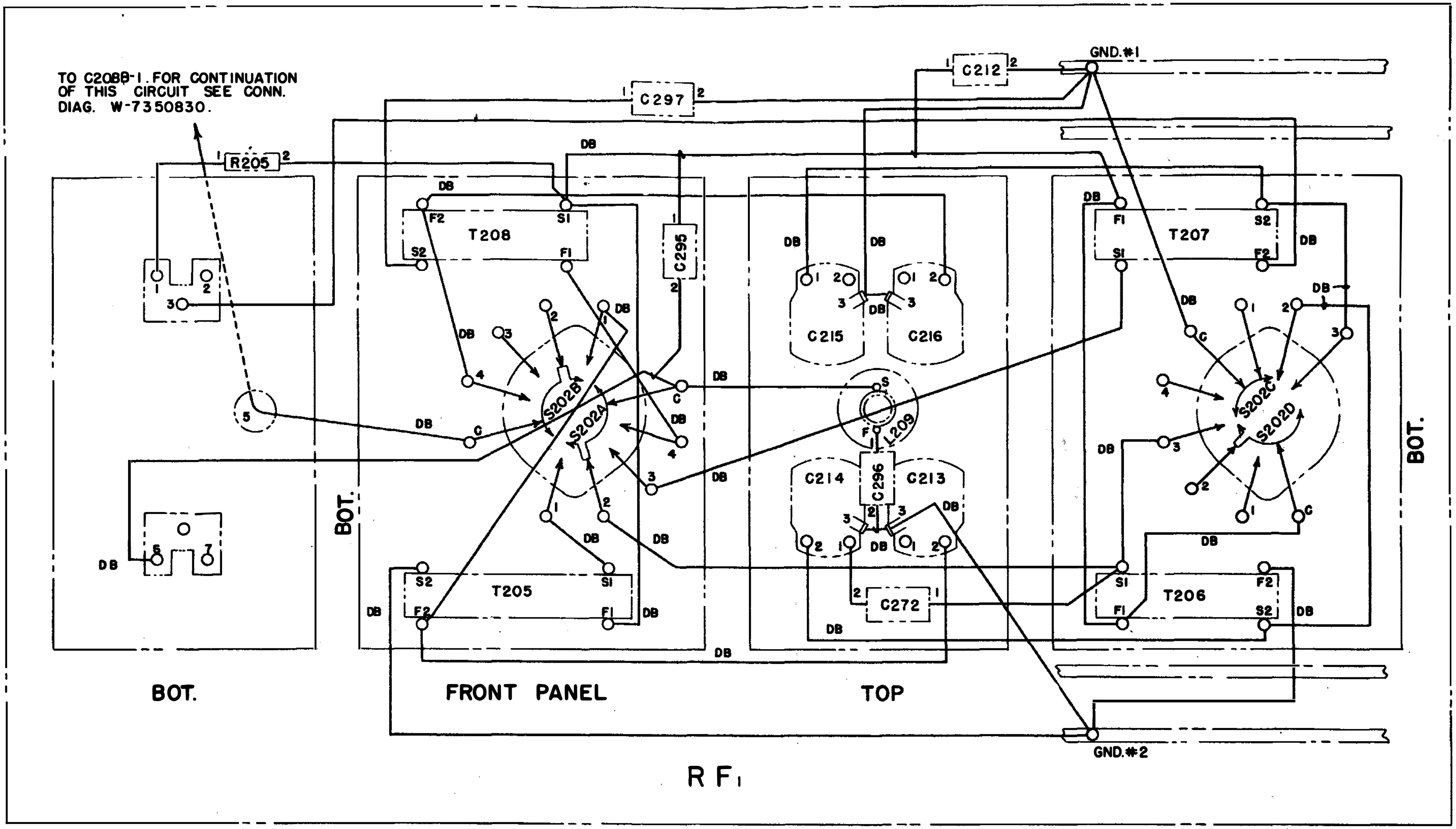


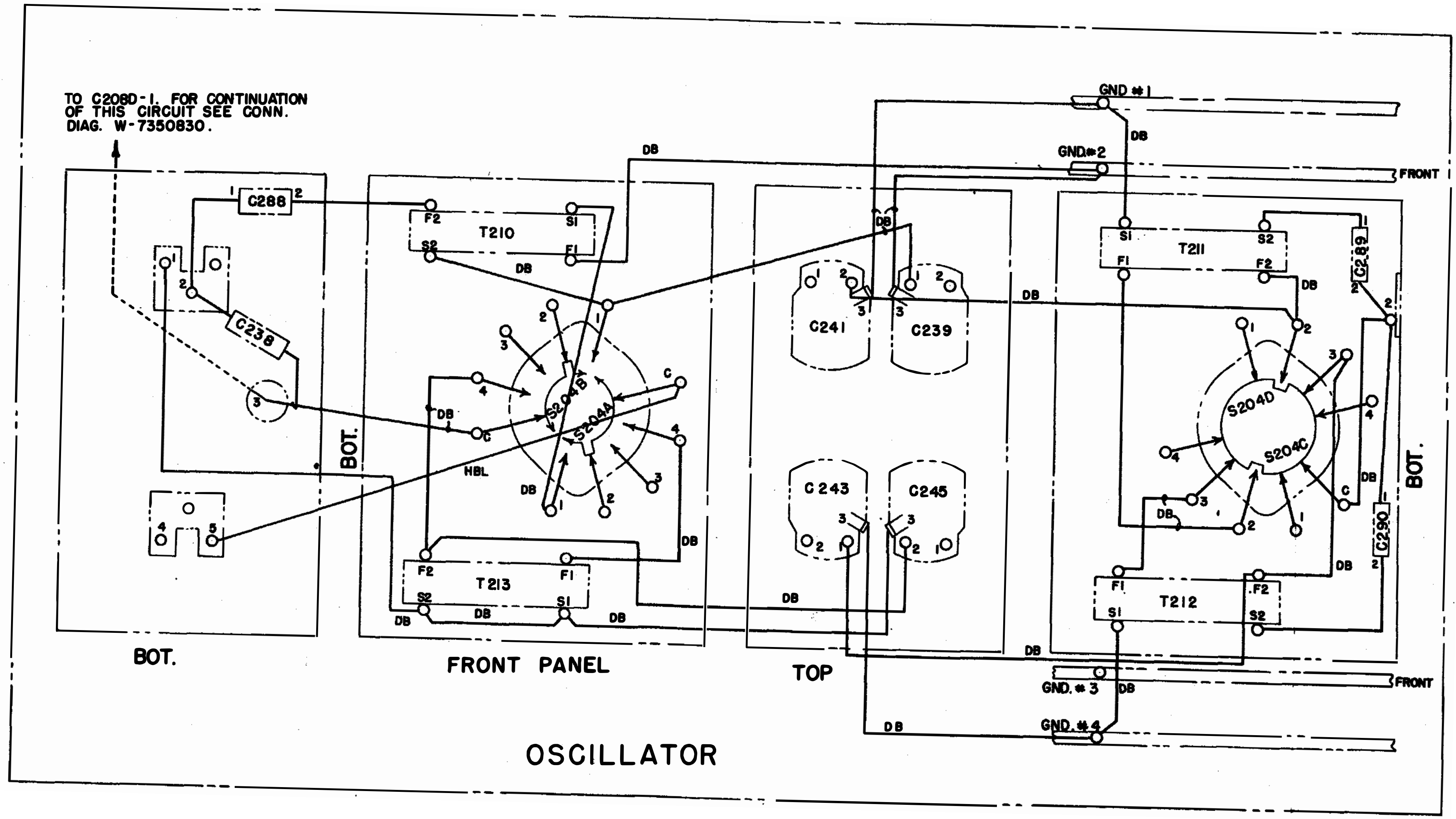
W-7350829

Connection Diagram, R-f Units, Type CG-46116 Radio Receiver No. 2

W-7350829

Connection Diagram, R-f Units, Type CG-46116 Radio Receiver No. 2

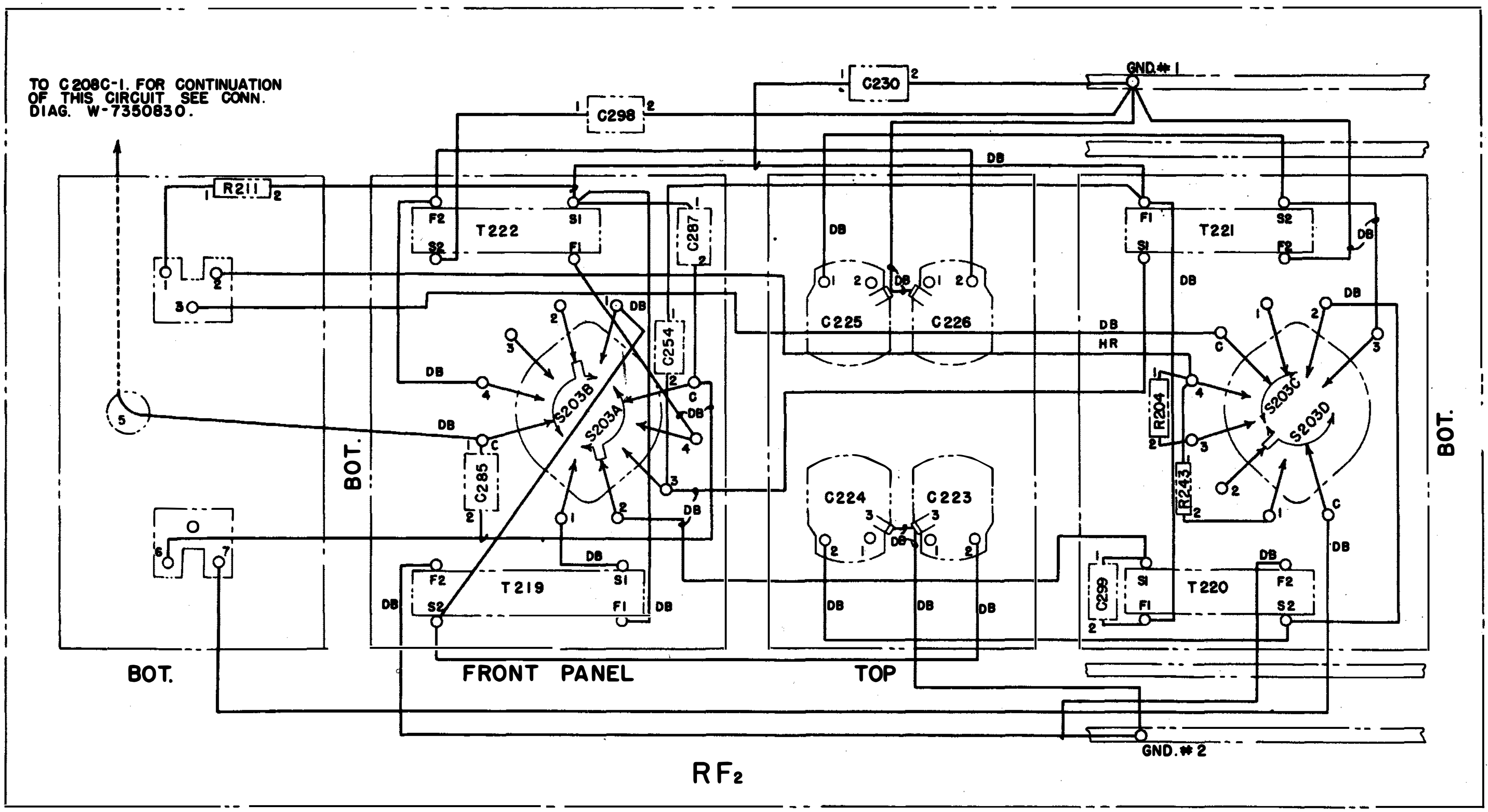




Connection Diagram, R-f Units, Type CG-46116 Radio Receiver No. 2

W-7350829

Connection Diagram, R-f Units, Type CG-46116 Radio Receiver No. 2



CAPACITORS

C201	50	MMFD	500 V.
C202	50	MMFD	TRIMMER
C203	50	MMFD	TRIMMER
C204	50	MMFD	TRIMMER
C206	50	MMFD	TRIMMER
C212	.006	MFD	300 V.
C213	50	MMFD	TRIMMER
C214	50	MMFD	TRIMMER
C215	50	MMFD	TRIMMER
C216	50	MMFD	TRIMMER
C223	50	MMFD	TRIMMER
C224	50	MMFD	TRIMMER
C225	50	MMFD	TRIMMER
C226	50	MMFD	TRIMMER
C230	.006	MFD	300 V.
C238	25	MMFD	CERAMICON
C239	50	MMFD	TRIMMER
C241	50	MMFD	TRIMMER
C243	50	MMFD	TRIMMER
C245	50	MMFD	TRIMMER
C254	20	MMFD	500 V.
C272	10	MMFD	500 V.
C283	10	MMFD	500 V.
C285	10	MMFD	500 V.
C286	50	MMFD	500 V.
C287	100	MMFD	500 V.
C288	612	MMFD	250 V.
C289	730	MMFD	250 V.
C290	1197	MMFD	250 V.
C291	2390	MMFD	250 V.
C295	100	MMFD	500 V.
C296	10	MMFD	500 V.
C297	2390	MMFD	250 V.
C298	2390	MMFD	250 V.
C299	20	MMFD	500 V.
C1201	50	MMFD	500 V.
C1202	25	MMFD	500 V.

NOTE:- THE FOLLOWING PAIRS OF SWITCH POINTS ARE CONNECTED BY .040" BUS WIRE (DB).

S201B-1 AND S201C-1	S204A-1 AND S204C-1
S201B-2 AND S201C-2	S204A-2 AND S204C-2
S201B-3 AND S201C-3	S204A-3 AND S204C-3
S202B-1 AND S202C-1	S204A-4 AND S204C-4
S202B-2 AND S202C-2	S204B-1 AND S204D-1
S202B-3 AND S202C-3	S204B-2 AND S204D-2
S203B-1 AND S203C-1	S204B-3 AND S204D-3
S203B-2 AND S203C-2	S204B-4 AND S204D-4
S203B-3 AND S203C-3	

CHOKE

L209 M-7464921 G1

RESISTORS

R204	620	OHMS	1/2 WATT
R205	2200	OHMS	1/2 WATT
R211	2200	OHMS	1/2 WATT
R243	2000	OHMS	1/2 WATT

SWITCHES

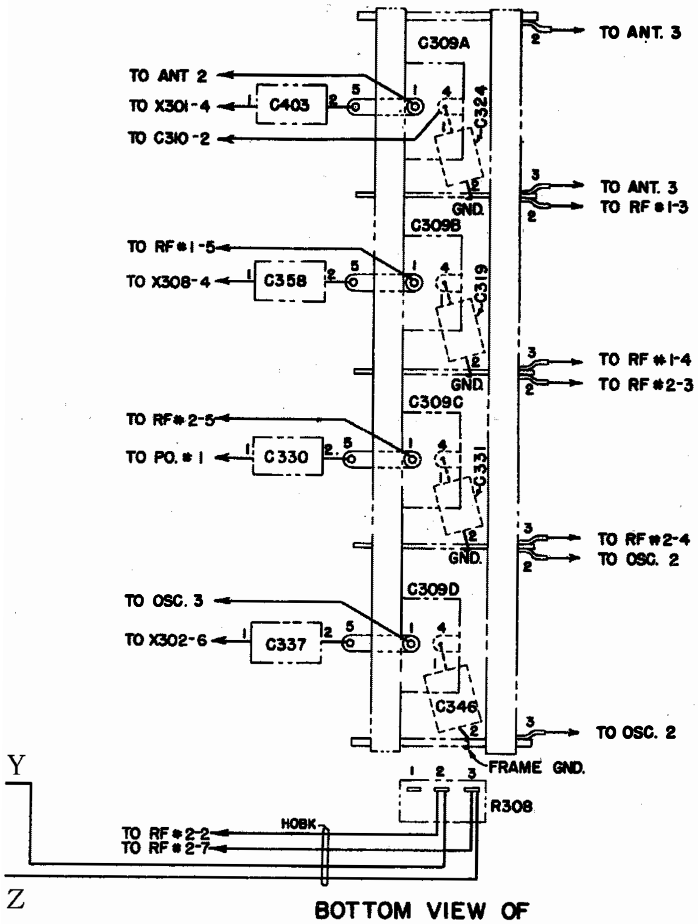
S201A-B-C-D, M7464376 P3
S202A-B-C-D, M7464376 P3
S203A-B-C-D, M7464376 P3
S204A-B-C-D, M7464376 P6

TRANSFORMERS

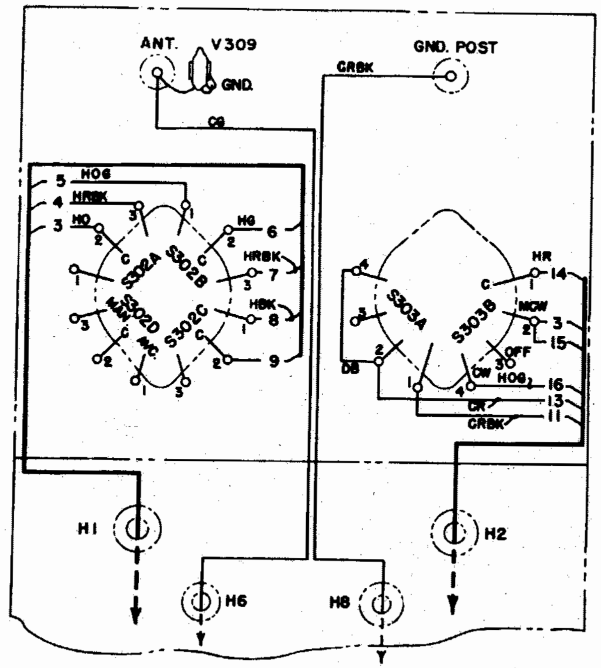
T201	K-7877362
T202	K-7877363
T203	K-7877364
T204	K-7877365
T205	K-7877366
T206	K-7877367
T207	K-7877368
T208	K-7877369
T210	K-7877374
T211	K-7877375
T212	K-7877376
T213	K-7877377
T219	K-7877370
T220	K-7877371
T221	K-7877372
T222	K-7877373

CONNECTIONS

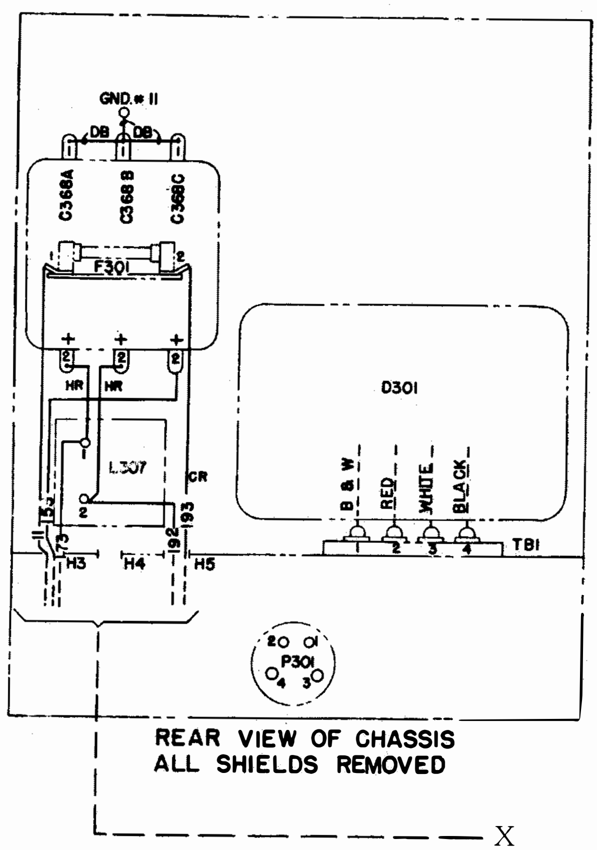
WIRE SIZE	DESCRIPTION
UNMARKED	UNIT PIECE OF APPARATUS
DB	.040" DIA. COPPER WIRE TINNED
DC	.061 " DIA. COPPER WIRE TINNED
HBK	#22 AWG, IMPREGNATED DOUBLE CELLULOSE ACETATE BRAID INSULATION, WHITE WITH BLACK TRACER. G.E. SPEC. K-7875044 PT-2
CBL	#16 AWG, STRANDED 1/64" RUBBER INSULATION BLUE LACQUERED BRAID, O.D.-.135" G.E. SPEC. K-7872345 PT-6



BOTTOM VIEW OF TUNING CAPACITOR AND R308



PARTIAL REAR VIEW OF FRONT PANEL



REAR VIEW OF CHASSIS ALL SHIELDS REMOVED

Connection Diagram, Type CG-46117 Receiver Unit No. 3

WW-7350186

CAPACITORS

C307	.006	MFD	300 V.
C309A			
C309B			TT-7660270 GI
C309C	Δ 102	MMFD	TUNING CAPACITOR
C309D			
C310	16	MMFD	TRIMMER
C311	.006	MFD	300 V.
C312	.006	MFD	300 V.
C319	30	MMFD	250 V.
C321A,B	12	MFD	50V.
C322	.006	MFD	300 V.
C323	.006	MFD	300 V.
C324	10	MMFD	500V.
C330	400	MMFD	500V.
C331	30	MMFD	250V.
C334	.006	MFD	300V.
C335	.006	MFD	300V.
C336	25	MMFD	25D V.
C337	500	MMFD	250V.
C338	300	MMFD	250V.
C339	300	MMFD	250 V.
C340	500	MMFD	250 V.
C341	25	MMFD	500 V.
C342A,B	40	MMFD	TRIMMER
C343	200	MMFD	250 V.
C344	30	MMFD	CERAMICON
C345	.006	MFD	300 V.
C346	26	MMFD	CERAMICON
C358	400	MMFD	500 V.
C359	.01	MFD	300 V.
C360	.006	MFD	300 V.
C361	300	MMFD	250V.
C362	300	MMFD	250 V.
C363	.01	MFD	300 V.
C365	.006	MFD	300 V.
C367	.006	MFD	300V.
C368A	16	MFD	250V.
C368B	16	MFD	250 V.
C368C	16	MFD	250 V.
C370	.01	MFD	300 V.
C372	.006	MFD	300 V.
C373	.006	MFD	300 V.
C374	50	MFD	25 V.
C375	.01	MFD	300 V.
C376	.006	MFD	300 V.
C377	.01	MFD	300 V.
C378	350	MMFD	250 V.
C379	350	MMFD	250 V.
C380	.006	MFD	300 V.
C381	400	MMFD	250 V.
C382	300	MMFD	250 V.
C383	50	MMFD	500 V.
C384	175	MMFD	250 V.
C385	.006	MFD	300 V.
C386	100	MMFD	250 V.
C387	.004	MFD	300 V.
C388	.006	MFD	300 V.
C389	100	MMFD	500 V.
C390	.006	MFD	300 V.
C393	.006	MFD	300V.
C395	.006	MFD	300V.
C403	400	MMFD	500V.
C414	.05	MFD	400V.
C417	.0095	MFD	300V.
C418	.01	MFD	300 V.
C419	.01	MFD	300 V.
C420	.0095	MFD	300 V.
C422	.01	MFD	300 V.

CHOKES

L308	2000 μH	K-7877090
L307	0.5 H	K-7877075
L308		K-7877089
L314		M-7464808 GI
L315		P-7763160 GI

DYNAMOTOR

D301 K-7876461 PI

FUSE

F301 4 AMP.

JACK

J301 M- 7461865 GI

RESISTORS

R302	220	OHMS	1/2 WATT
R303	2200		
R304	1000		
R306	470,000		
R307	220		1/2 WATT
R308	2500		M-7464322P2
R309	1,000		1/2 WATT
R310	47,000		1 WATT
R312	470,000		1/2 WATT
R313	330		1/2 WATT
R314	12,000		1/2 WATT
R315	8200		1 WATT
R316	68,000		1/2 WATT
R317	47,000		1/2 WATT
R320	390		1 WATT
R321	82,000	OHMS	1 WATT
R322	1	MEGOHM	1/2 WATT
R323	560	OHMS	1/2 WATT
R324	9100		1/2 WATT
R325	6,800		1/2 WATT
R326A	6,250		M-7464321 P2
R326B	800,000		
R328	2700		1 WATT
R329	330		1/2 WATT
R330	470,000		
R331	470,000		
R332	18,000		
R333	820		
R334	330,000		
R336	51,000		
R337	820		
R338	12,000		
R339	150,000		
R340	1,000		
R341	47,000		1/2 WATT
R342	33,000		1 WATT
R343	390		1/2 WATT
R344	2,700		1 WATT
R345	1,000		1/2 WATT
R346	68,000		
R347	24,000		
R348	2,200		
R349	1,000	OHMS	1/2 WATT

SWITCHES

S302A,B,C	M-7484292	P2
S303A,B	M-7464292	P1

TRANSFORMERS

T311	P-7763107	GI
T312	P-7763109	GI
T319	P-7763108	GI
T321	P-7763110	GI
* T322	K-7878235	

TUBE SOCKETS

X301	K-7874006
X302	
X303	
X304	
X305	
X306	
X307	
X308	K-7874006

TUBES

V301	12SK7
V302	12K8
V303	12SK7
V304	12SK7
V305	12SK7
V306	12A6
V307	12SR7
V308	12SK7
V309	CD-1010-GL

* T322 K7877947 USED ON NAVY MODEL RAX-1

Connection Diagram, Type CG-46117 Receiver Unit No. 3

CONNECTIONS	
WIRE SIZE	DESCRIPTION
CBK	# 16 AWG, STRANDED, 1/64" RUBBER INSULATION, BLACK LAC. BRAID, O.D.- .135" G.E. DWG. K-7872345 P2
CBR	# 16 AWG, STRANDED, 1/64" RUBBER INSULATION, BROWN LAC. BRAID, O.D.- .135" G.E. DWG. K-7872345 P3
CG	# 16 AWG, STRANDED, 1/64" RUBBER INSULATION, GREEN LAC. BRAID, O.D.-.135" G.E. DWG. K-7872345 P5
CR	# 16 AWG, STRANDED, 1/64" RUBBER INSULATION, RED LAC. BRAID, O.D.-.135" G.E. DWG. K-7872345 P4
CRBK	# 16 AWG, STRANDED, 1/64" RUBBER INSULATION, RED/BLACK LAC BRAID, O.D.-.135" G.E. DWG. K-7872345 P8.
DB	.040" DIA. COPPER WIRE TINNED
DC	.061" DIA. COPPER WIRE TINNED
HBK	# 22 AWG, WHITE WITH BLACK TRACER G.E. DWG. K-7875044 P2
HBL	# 22 AWG, WHITE WITH BLUE TRACER G.E. DWG. K-7875044 P6
HBR	# 22 AWG, WHITE WITH BROWN TRACER G.E. DWG. K-7875044 P3
HG	# 22 AWG, WHITE WITH GREEN TRACER G.E. DWG. K-7875044 P5
HO	# 22 AWG, WHITE WITH ORANGE TRACER G.E. DWG. K-7875044 P5
HOBK	#22 AWG, WHITE WITH ONE ORANGE AND ONE BLACK TRACER G.E. DWG. K-7875044 P7
HOG	#22 AWG, WHITE WITH ONE ORANGE AND ONE GREEN TRACER G.E. DWG. K-7875044 P10
HR	# 22 AWG, WHITE WITH RED TRACER G.E. DWG. K-7875044 P4
HRBK	# 22 AWG, WHITE WITH ONE RED AND ONE BLACK TRACER G.E. DWG. K-7875044 P8
HRBL	# 22 AWG, WHITE WITH ONE RED AND ONE BLUE TRACER G.E. DWG. K-7875044 P9
M OR UNMARKED	UNIT PIECE OF APPARATUS

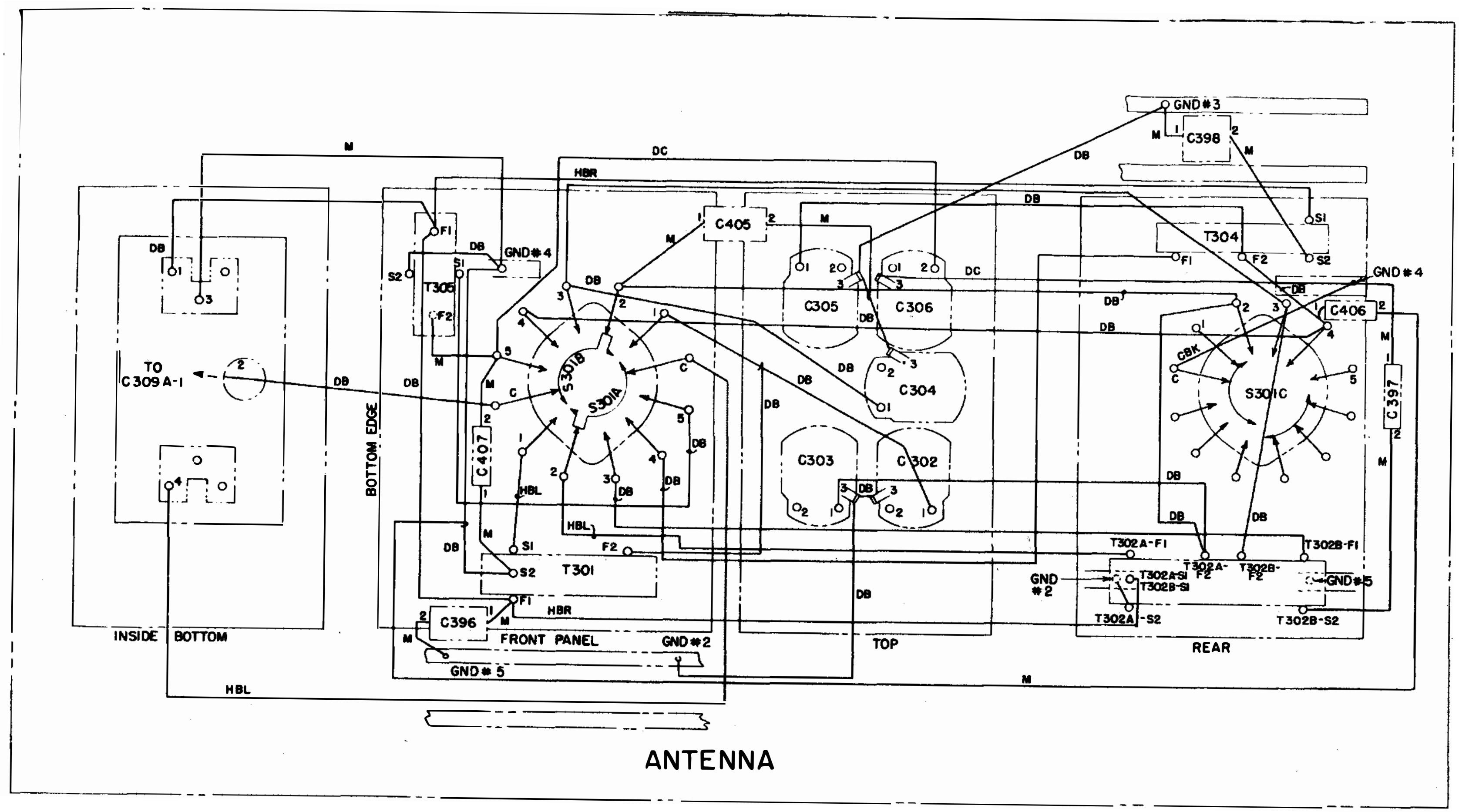
NOTE # 1 THIS CONNECTION MAY BE ACROSS EITHER R340 OR R343.

NOTE # 2 THIS CONNECTION MAY BE ACROSS EITHER R349 OR R323.

NOTE # 3 IN MODEL RAX-1, R 325 IS REPLACED BY R324.

Connection Diagram, Type CG-46117 Receiver Unit No. 3

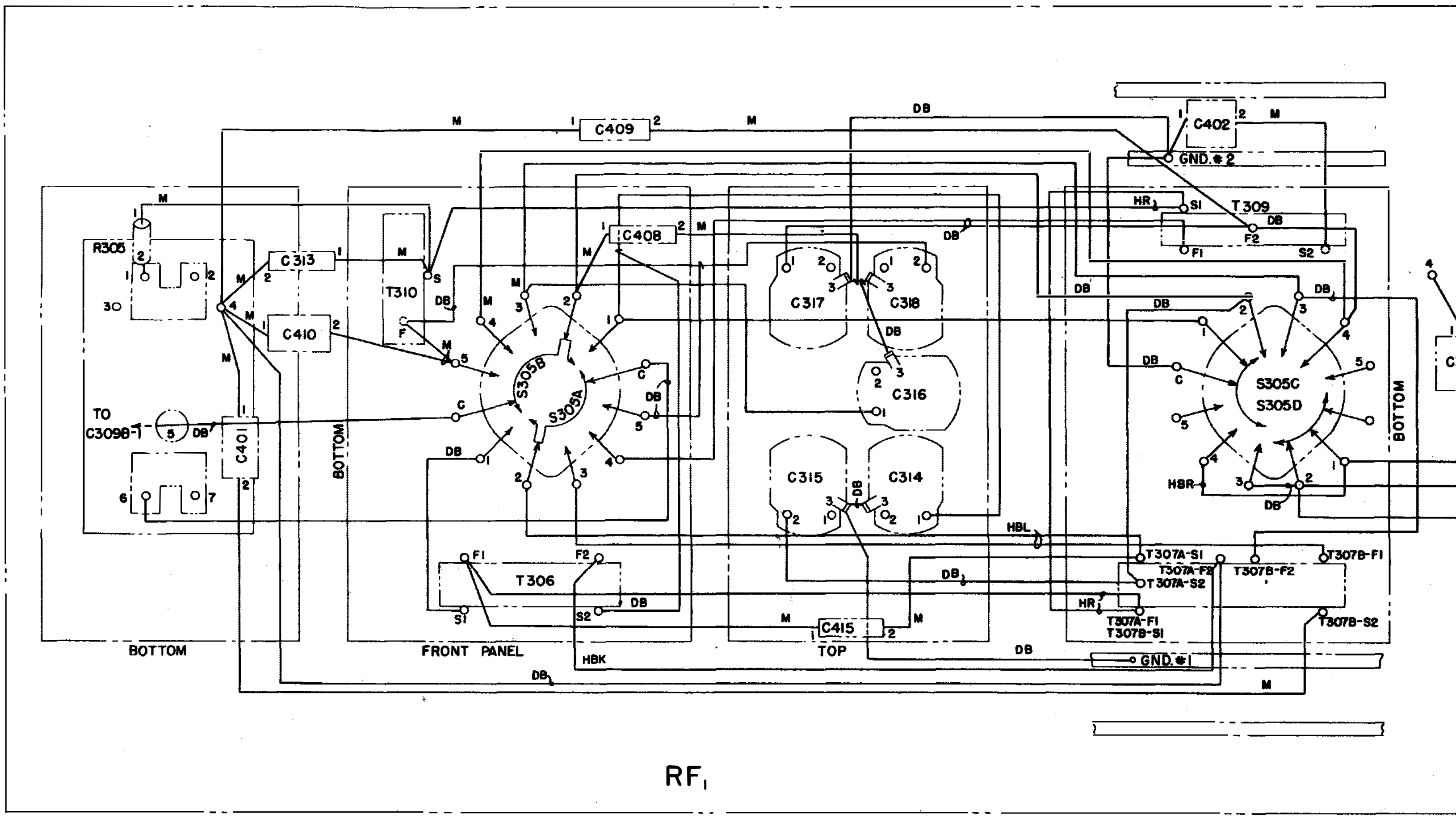
WW-7350186

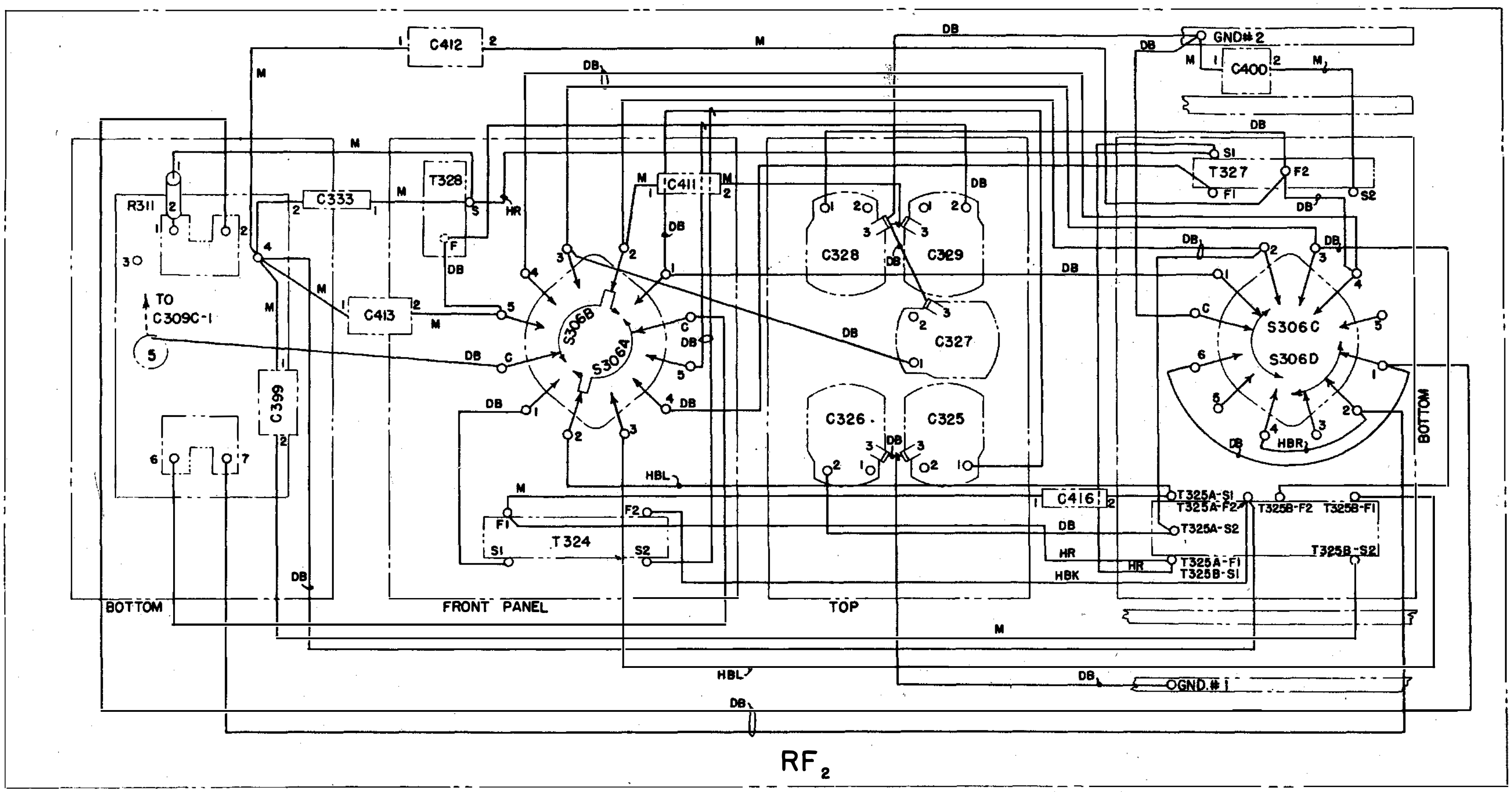


Connection Diagram, R-f Units, Type CG-46117 Radio Receiver No. 3

W-7350847

Connection Diagram, R-f Units, Type CG-46117 Radio Receiver No. 3



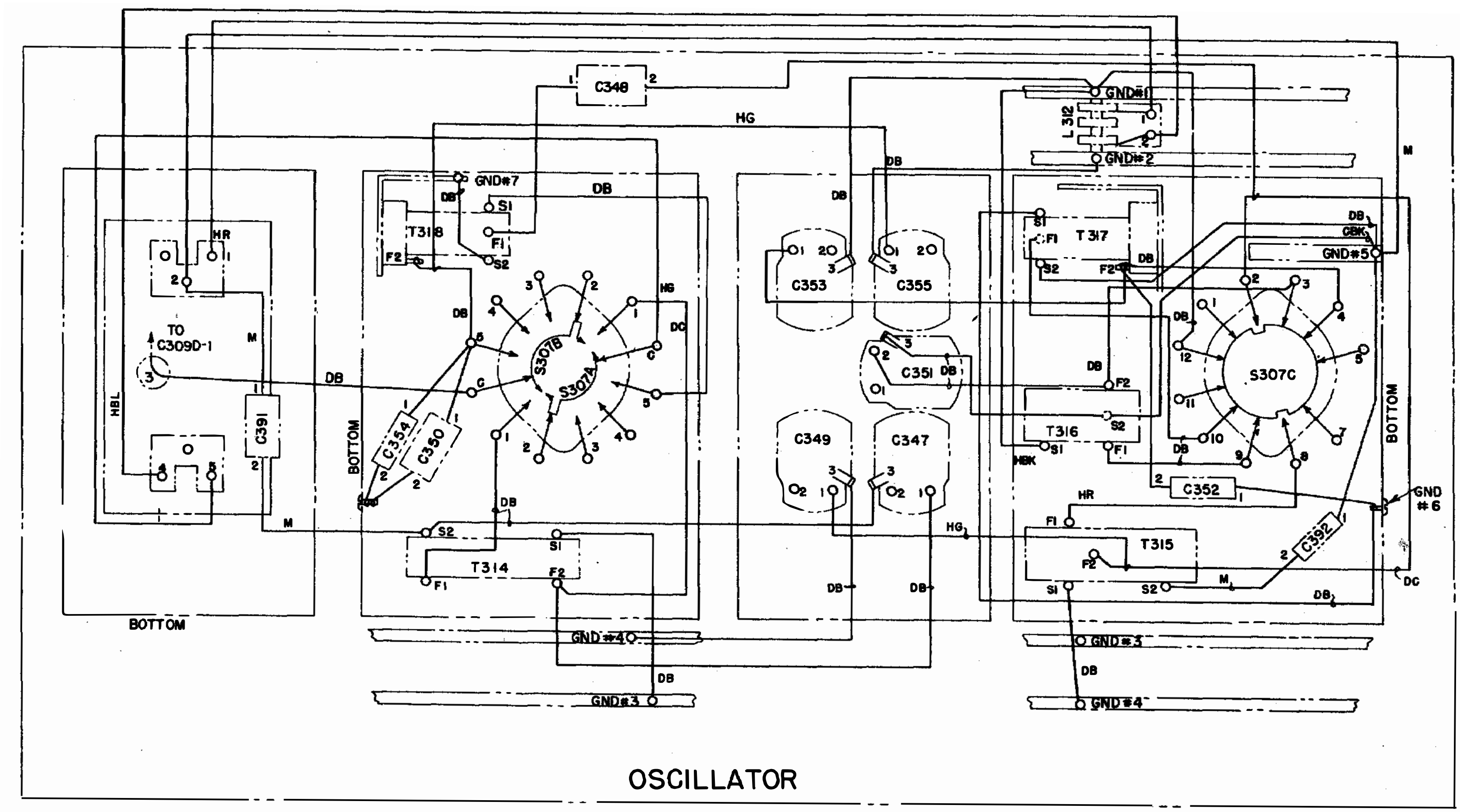


Connection Diagram, R-f Units, Type CG-46117 Radio Receiver No. 3

W-7350847

W-7350847

Connection Diagram, R-f Units, Type CG-46117 Radio Receiver No. 3



CAPACITORS

C302	50 MMFD	TRIMMER
C303		
C304		
C305		
C306	50 MMFD	TRIMMER
C313	.006 MFD	300 V.
C314	50 MMFD	TRIMMER
C315		
C316		
C317		
C318		
C325		
C326		
C327		
C328		
C329	50 MMFD	TRIMMER
C333	.006 MFD	300V.
C347	50 MMFD	TRIMMER
C348	40	250 V.
C349	50	TRIMMER
C350	70	250V.
C351	50	TRIMMER
C352	25	250V.
C353	50	TRIMMER
C354	5	
C355	50	TRIMMER
C391	690	250 V.
C392	1325	250 V.
C396	50	500 V.
C397	1720	250 V.
C398	2450 MMFD	250 V.
C399	1720 MMFD	250 V.
C400	2600	
C401	1720	
C402	2600	
C405	40	
C406	50	
C407	120	
C408	40	
C409	30	
C410	75	
C411	40	
C412	30	
C413	75 MMFD	
C415	10 MMFD	
C416	10 MMFD	250 V.
C371	.01 MFD	300 V.

CHOKE

L312	1300µH	K-7877552

RESISTORS

R305	2200 OHMS	1/2 WATT
R311	2200 OHMS	1/2 WATT

SWITCHES

S301 A-B-C	M-7464376	P4
S305A-B-C-D	M-7464376	P4
S306A-B-C-D	M-7464376	P4
S307A-B-C	M-7464376	P2

TRANSFORMERS

T301	K-7877378
T302A-B	K-7877379
T304	K-7877380
T305	K-7877381
T306	K-7877382
T307A-B	K-7877383
T309	K-7877384
T310	K-7877385
T314	K-7877390
T315	K-7877391
T316	K-7877392
T317	K-7877393
T318	K-7877394
T324	K-7877386
T325A-B	K-7877387
T327	K-7877388
T328	K-7877389

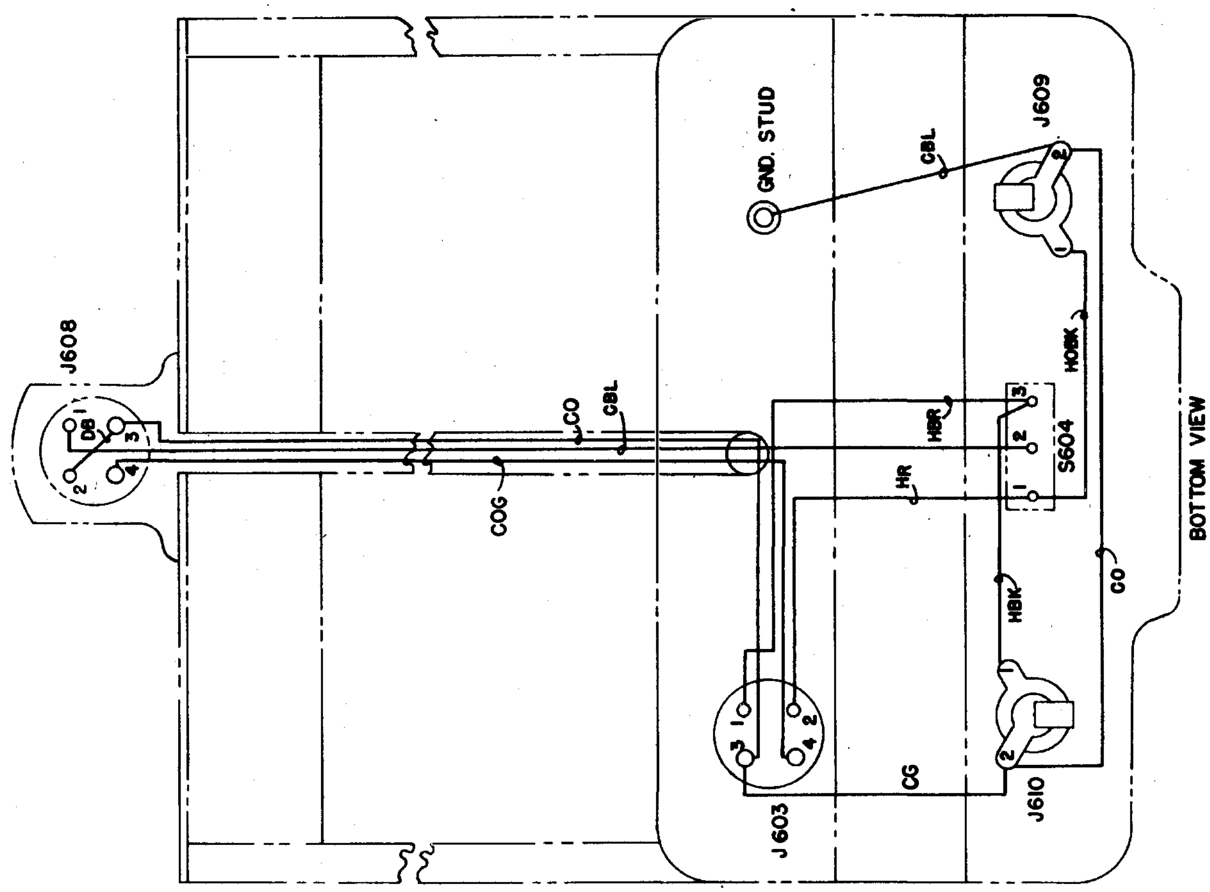
CONNECTIONS BETWEEN S307A-B AND S307C, CONNECTED BY EXTERNAL WIRE TO SWITCH.

S307A-1	TO	S307C-7
S307A-2	TO	S307C-8
S307A-3	TO	S307C-9
S307A-4	TO	S307C-10
S307A-5	TO	S307C-11
S307B-1	TO	S307C-1
S307B-2	TO	S307C-2
S307B-3	TO	S307C-3
S307B-4	TO	S307C-4
S307B-5	TO	S307C-5

CONNECTION	DESCRIPTION
CBK	#16 AWG, STRANDED, 1/64" RUBBER INSULATION, BLACK LAC. BRAID, O.D. -.135" G.E. DWG. K-7872345 P2
DB	.040"DIA. COPPER WIRE TINNED
DC	.061"DIA. COPPER WIRE TINNED
HBK	#22 AWG, WHITE WITH BLACK TRACER, G.E. DWG. K-7875044 P2
HBL	#22 AWG, WHITE WITH BLUE TRACER, G.E. DWG. K-7875044 P6
HBR	#22 AWG, WHITE WITH BROWN TRACER, G.E. DWG. K-7875044 P3
HG	#22 AWG, WHITE WITH GREEN TRACER, G.E. DWG. K-7875044 P5
HR	#22 AWG, WHITE WITH RED TRACER, G.E. DWG. K-7875044 P4
"M" OR UNMARKED	UNIT PIECE OF APPARATUS

Connection Diagram, R-f Units, Type CG-46117 Radio Receiver No. 3

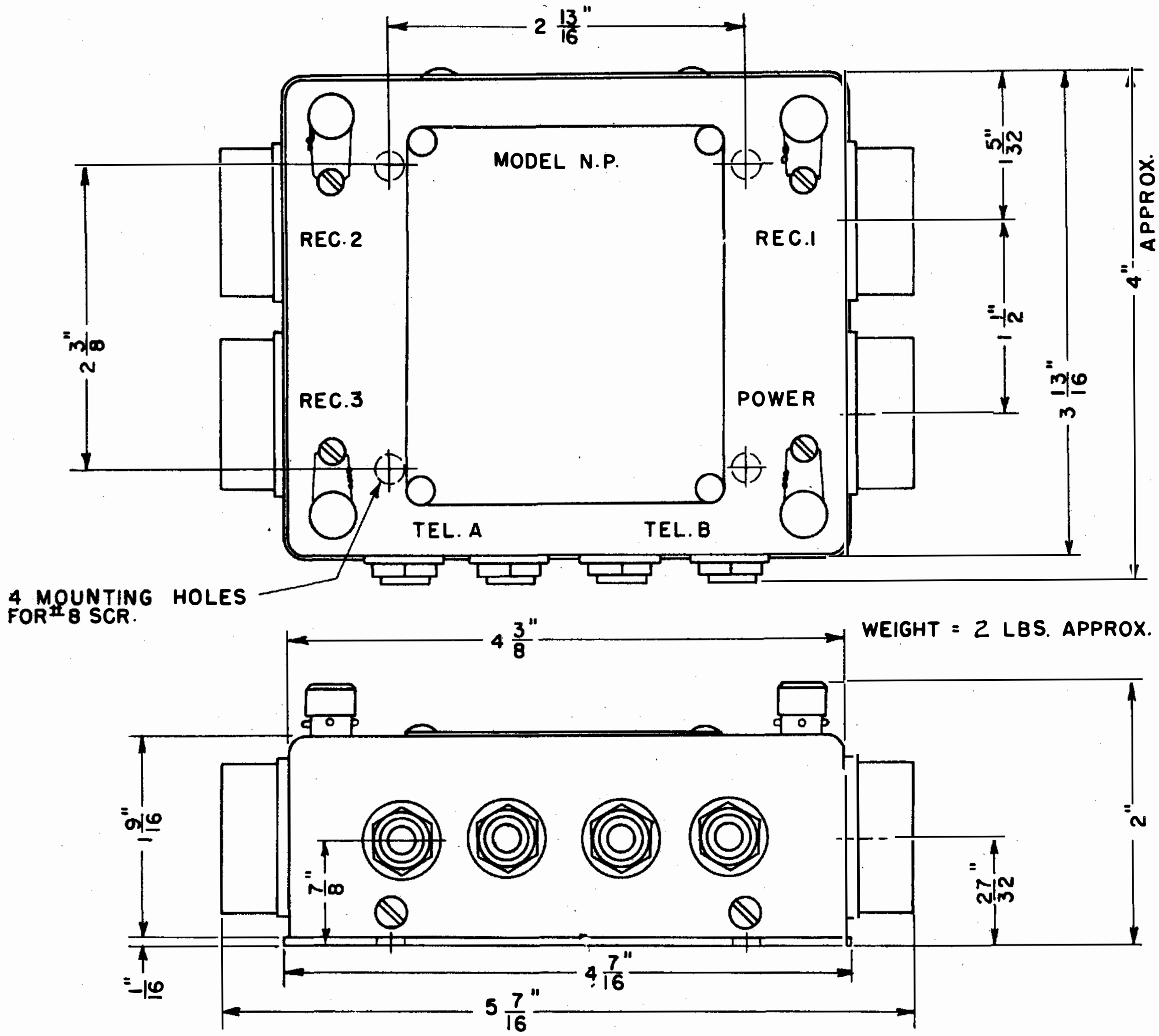
W-7350847



WIRE SIZE	DESCRIPTION
CBL	#16 AWG, STRANDED, 1/64" RUBBER INSULATION, BLUE LAC. BRAID, O.D.-.135" G.E. SPEC. K-7872345 PT-6
CO	#16 AWG, STRANDED, 1/64" RUBBER INSULATION, ORANGE LAC. BRAID, O.D.-.135" G.E. SPEC. K-7872345 PT-1
COG	#16 AWG, STRANDED, 1/64" RUBBER INSULATION, ORANGE/GREEN LAC. BRAID, O.D.-.135" G.E. SPEC. K-7872345 PT-10
CG	#16 AWG, STRANDED, 1/64" RUBBER INSULATION, GREEN LAC. BRAID, O.D.-.135" G.E. SPEC. K-7872345 PT-5
DB	.040" DIA. COPPER WIRE TINNED
HBK	#22 AWG, CELLULOSE ACETATE BRAID INSULATION, WHITE WITH BLACK TRACER, G.E. SPEC. K-7875044 PT-2
HBR	#22 AWG, CELLULOSE ACETATE BRAID INSULATION, WHITE WITH BROWN TRACER, G.E. SPEC. K-7875044 PT-3
HOBK	#22 AWG, CELLULOSE ACETATE BRAID INSULATION, WHITE WITH ONE ORANGE AND ONE BLACK TRACER. G.E. SPEC. K-7875044 PT-7
HR	#22 AWG, CELLULOSE ACETATE BRAID INSULATION, WHITE WITH RED TRACER, G.E. SPEC. K-7875044 PT-4

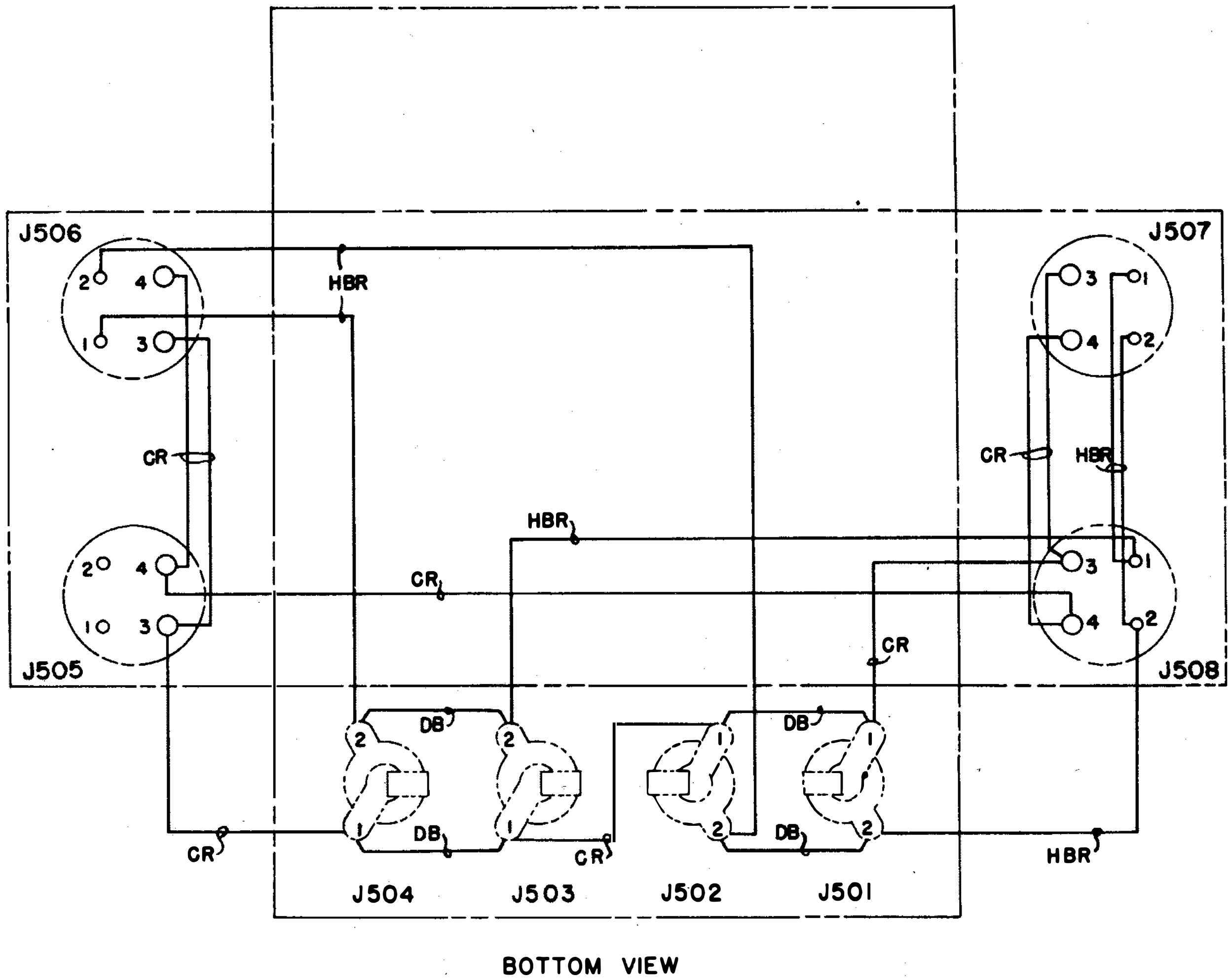
Connection Diagram, Type CG-46128 Receiver Rack

M-7465399



Outline Drawing, Type CG-68028 Junction Box

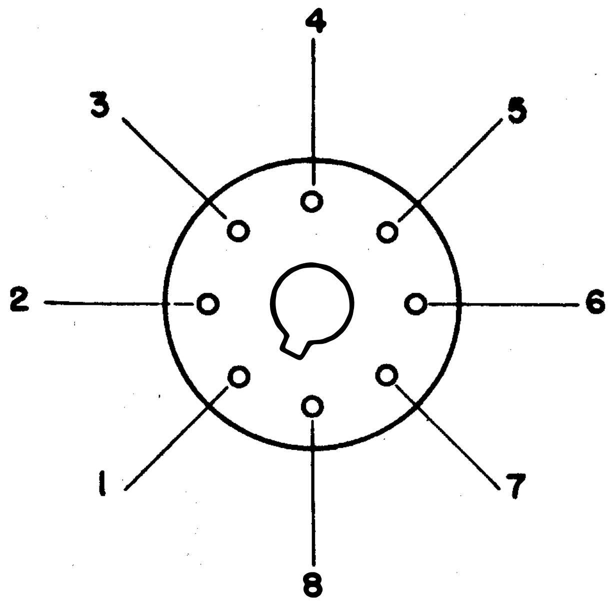
M-7465393



WIRE SIZE	DESCRIPTION
CR	*16 AWG, STRANDED, 1/64" RUBBER INSULATION, RED LACQUERED BRAID, O.D.-.135" G.E. SPEC. K7872345 P4
HBR	*22 AWG, IMPREGNATED DOUBLE CELLULOSE ACETATE BRAID INSULATION, WHITE WITH BROWN TRACER G.E. SPEC. K-7875044 P3.
DB	.040" DIA. COPPER WIRE TINNED

Connection Diagram, Type CG-68028 Junction Box

M-7465404



BOTTOM VIEW OF OCTAL TUBE
SHOWING TERMINAL NUMBERS

TERMINAL NO.	1	2	3	4	5	6	7	8	CAP
TUBE TYPE									
12SK7	SHELL	HEATER	SUP. GRID.	CONTROL GRID	CATHODE	SCREEN GRID	HEATER	PLATE	———
12K8	SHELL	HEATER	MIXER PLATE	SCREEN GRID	OSC. GRID.	OSC. PLATE	HEATER	CATHODE	CONTROL GRID
12SR7	SHELL	GRID	CATHODE	DIODE PLATE	DIODE PLATE	TRIODE PLATE	HEATER	HEATER	———
12A6	SHELL	HEATER	PLATE	SCREEN GRID	CONTROL GRID		HEATER	CATHODE	———

Base Connections of Tube Types Used in Navy Model RAX-1 Radio Receiving Equipment

K-7883550

NOTE:

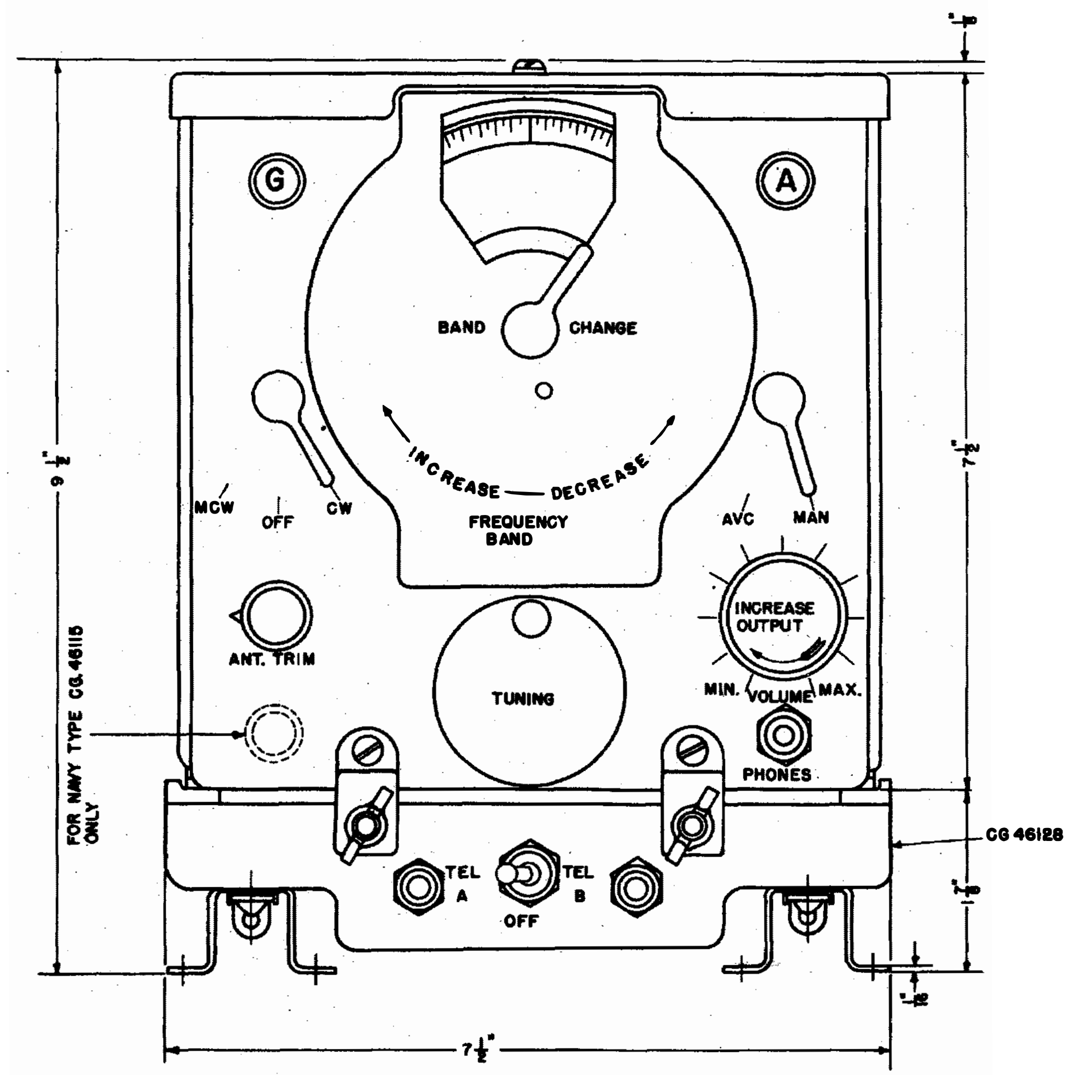
ALLOW 1" ALL AROUND & ON TOP FOR FREE RIDING ON SHOCK MOUNTS

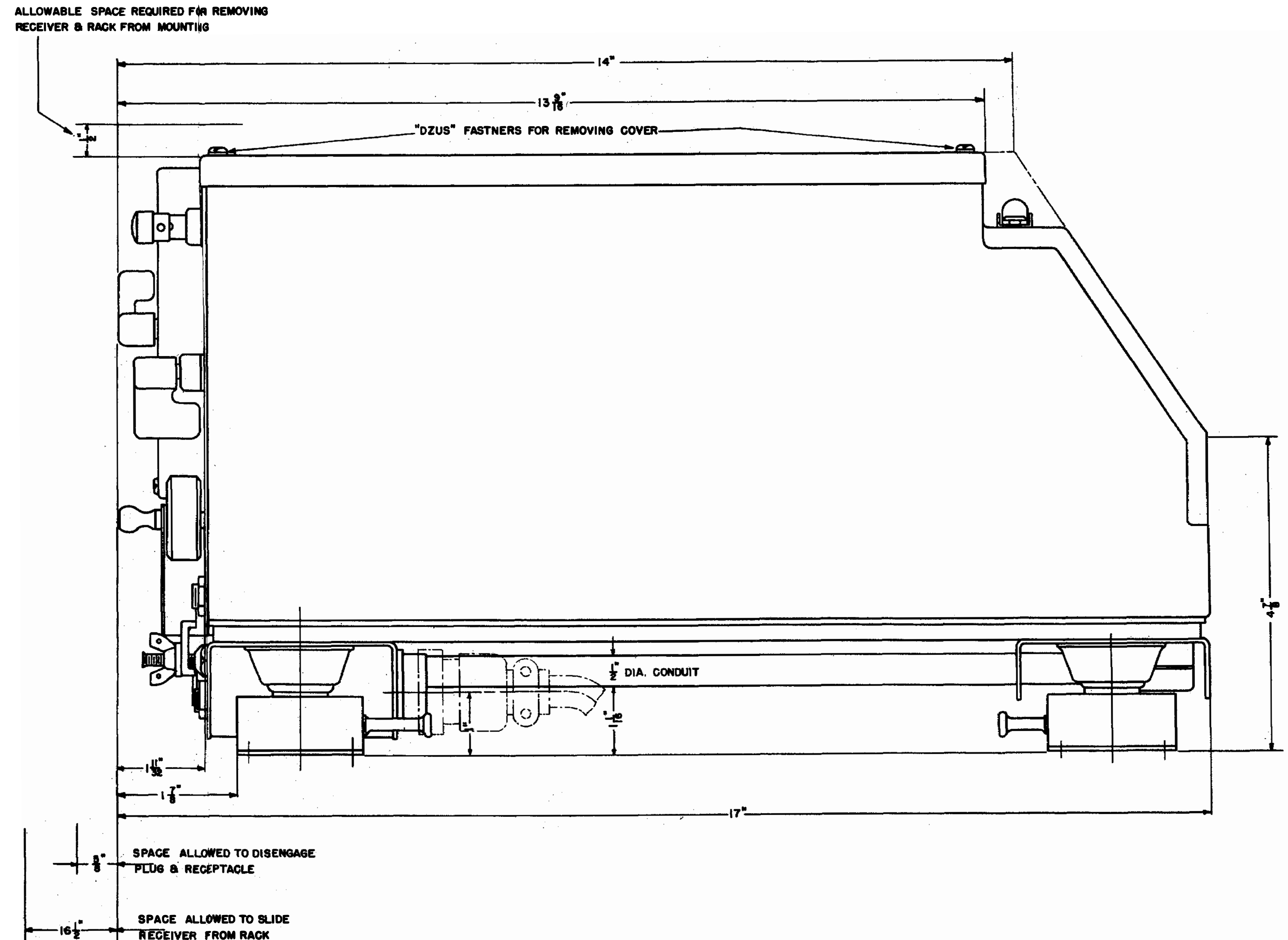
REMOVE RECEIVER TO ALLOW ACCESS TO SNAP CATCHES FOR REMOVING RACK FROM MOUNTING BASES.

FOR METHOD OF CONNECTING CABLE TO PLUG SEE M-7465168 P 3.

REMOVE RECEIVER FROM RACK TO CHANGE TUBES, FUSE & DYNAMOTOR.

COMPLETE EQUIPMENT CONSISTS OF THREE RECEIVERS, THREE SINGLE MOUNTINGS, NAVY TYPE CG. 46128, JUNCTION BOX, NAVY TYPE CG. 69028 (OUTLINE M-7465393), ONE CABLE PER M-7465168 P2, THREE CABLES PER M-7465168P3, THREE SLIP COVERS (K-7876914) & ONE PLUG K-7878738 FOR CABLING DIAGRAM SEE P-7764087

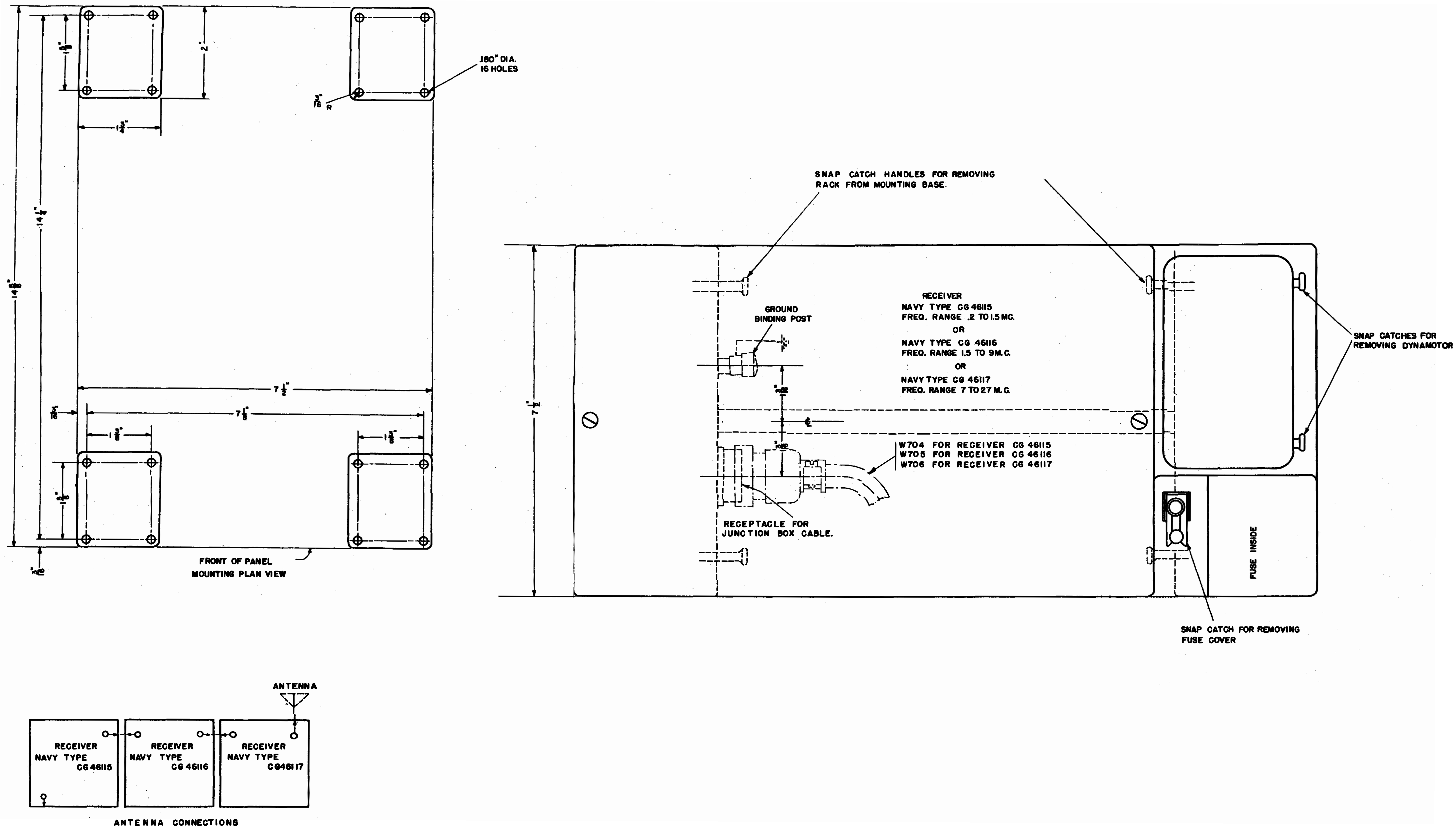




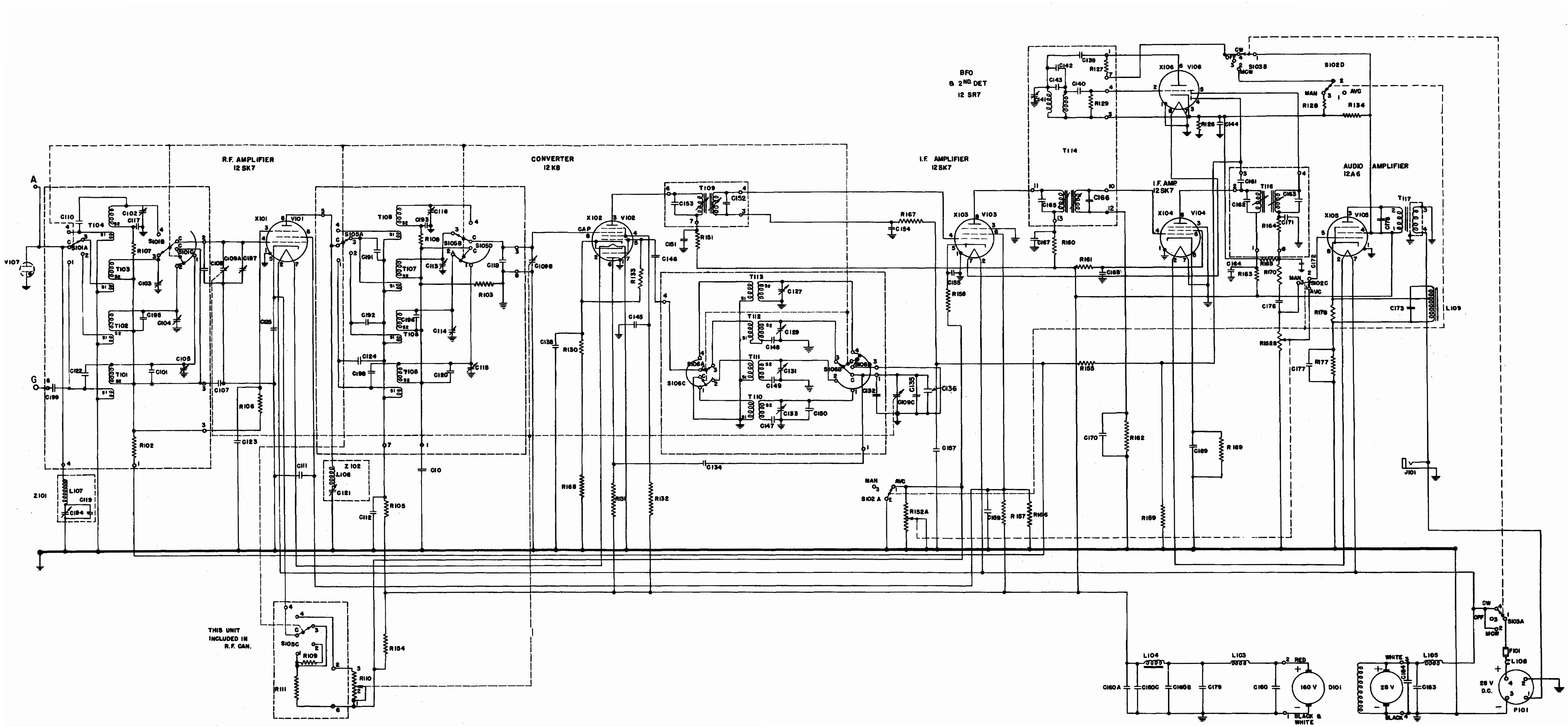
Outline Drawing of Single Receiver, Model RAX-1 Radio Receiving Equipment

111-112

W-7350950

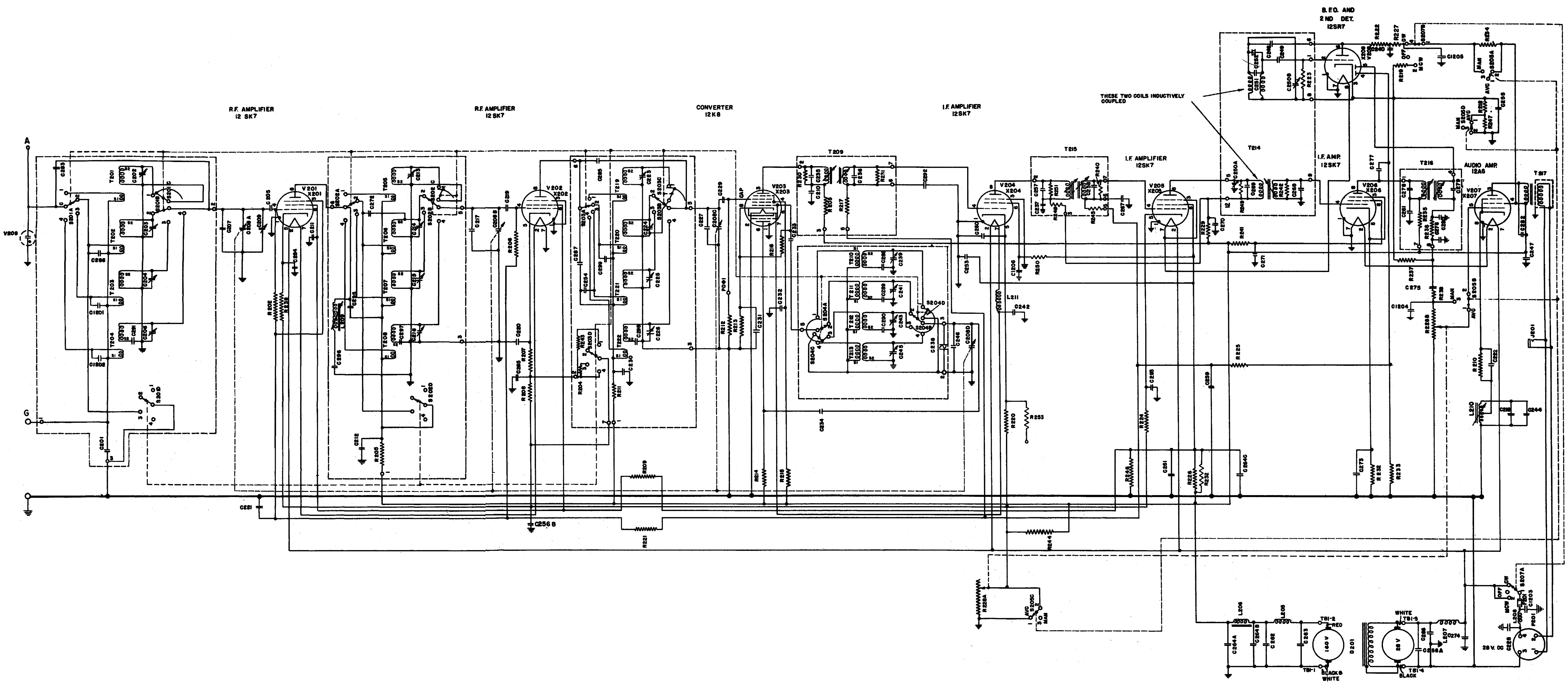


Outline Drawing of Single Receiver, Model RAX-1 Radio Receiving Equipment



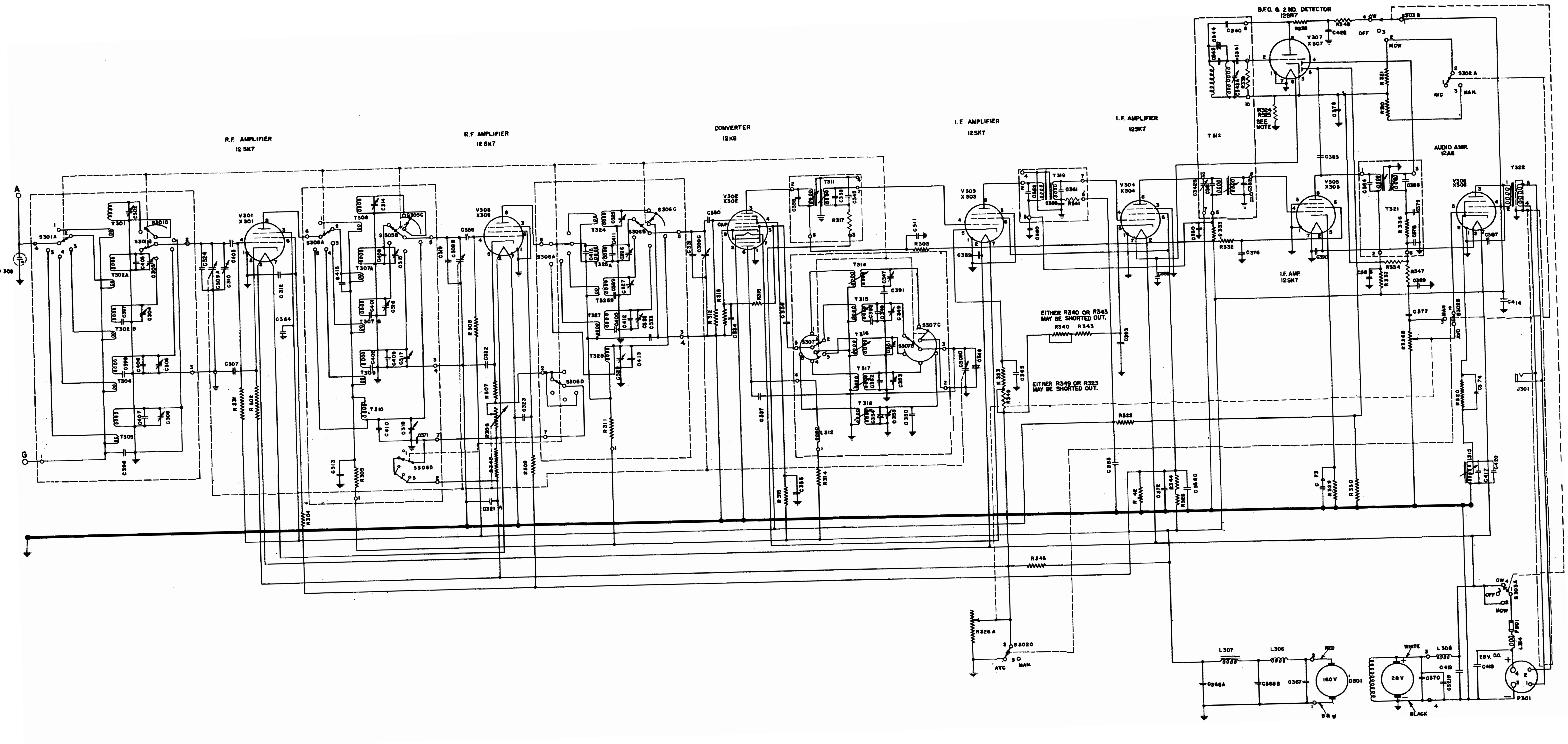
Schematic Diagram, Type CG-46115 Receiver Unit No. 1

W-7350826



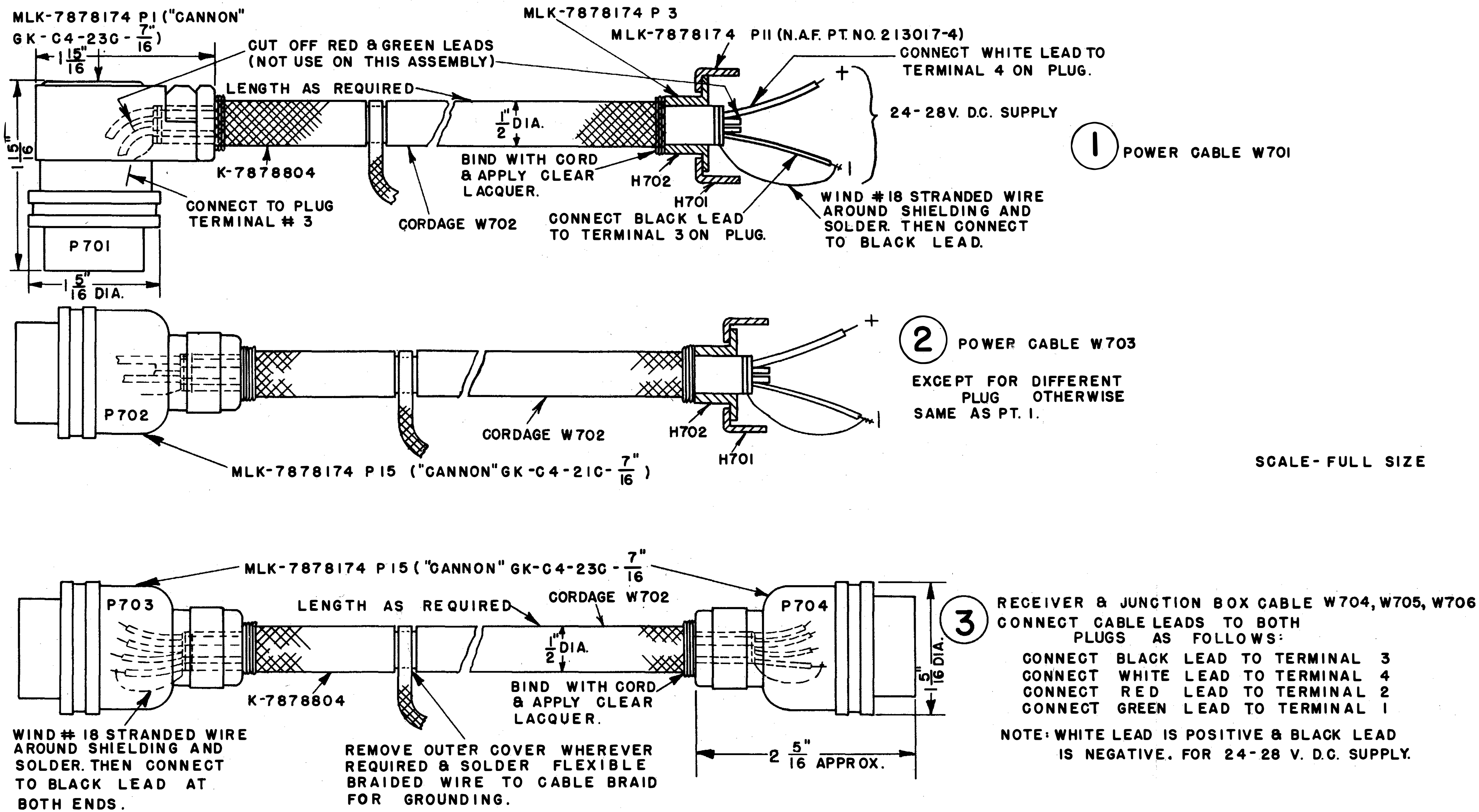
Schematic Diagram, Type CG-46116 Receiver Unit No. 2

WW-7350184



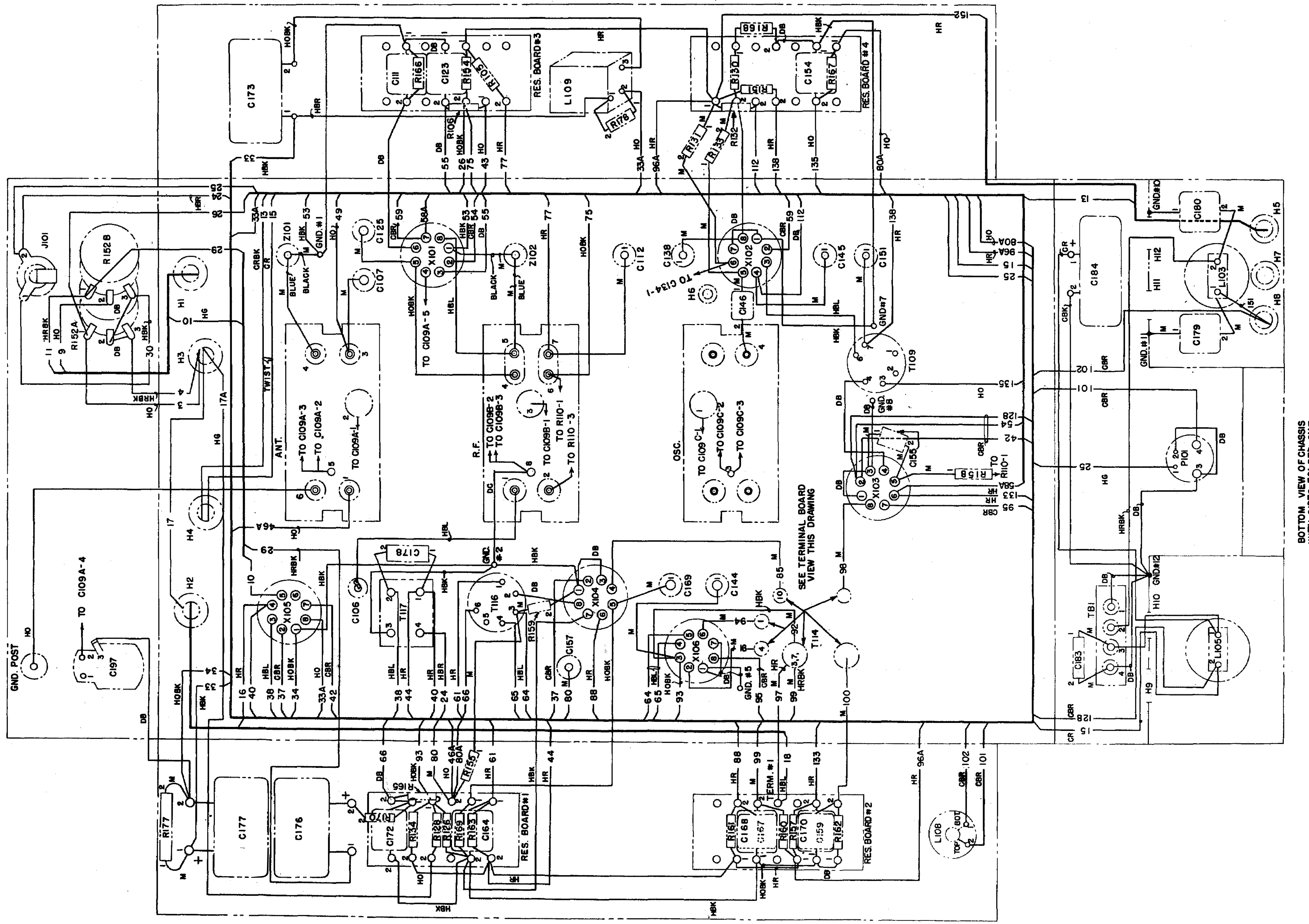
Schematic Diagram, Type CG-46117 Receiver Unit No. 3

WW-7350185



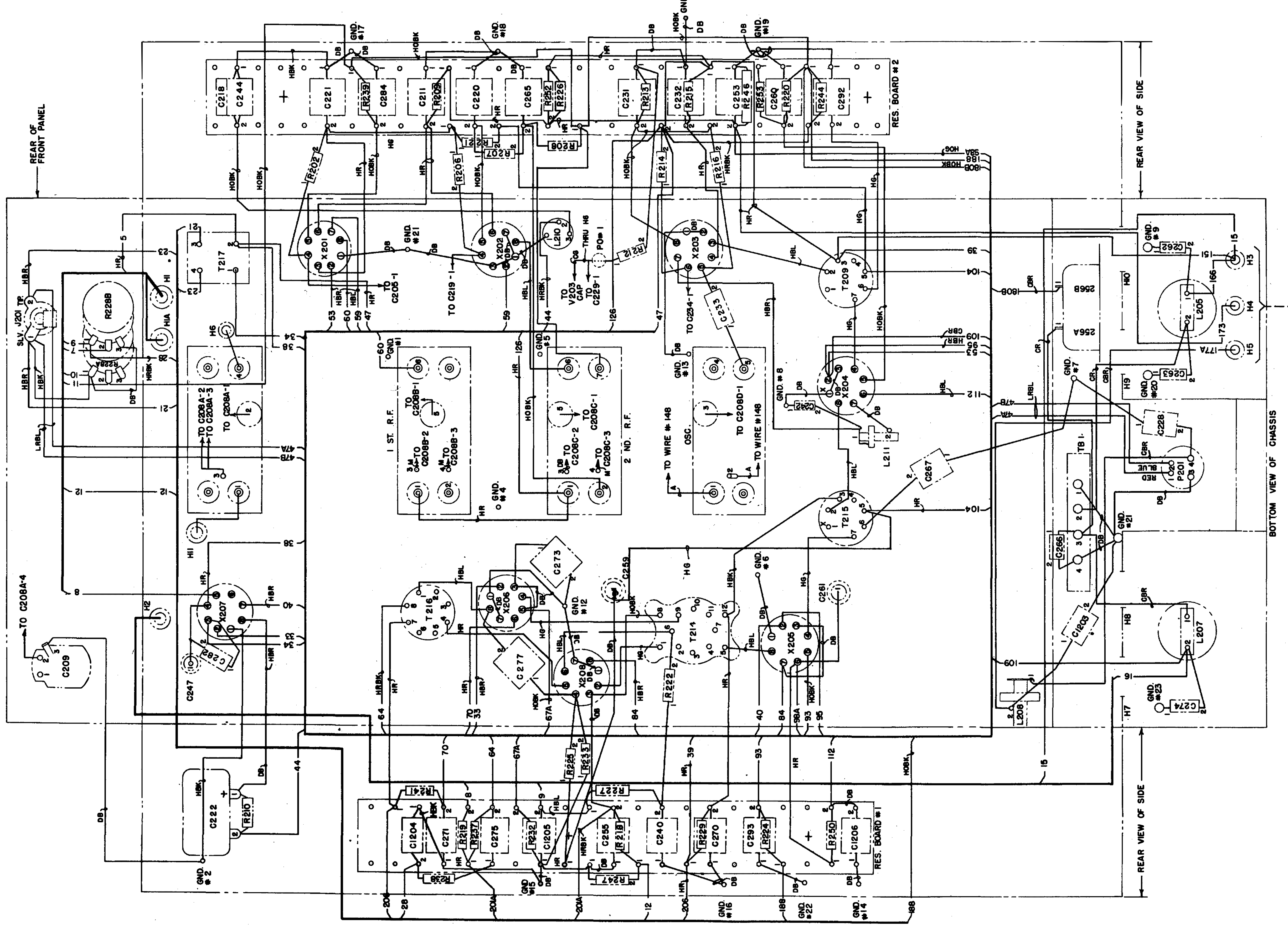
Cable Connections

M-7465168



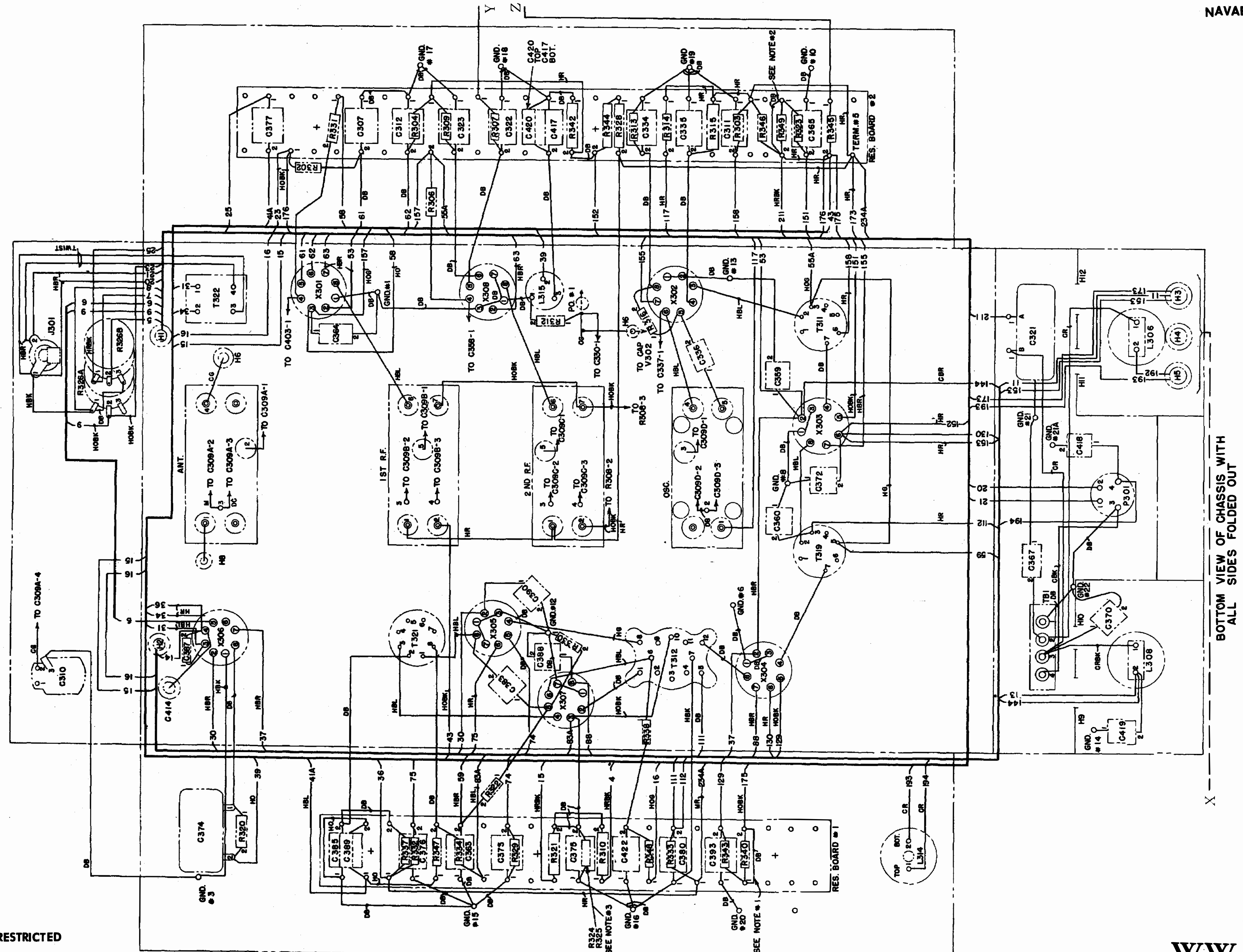
Connection Diagram, Type CG-46115 Receiver Unit No. 1

W-7350828



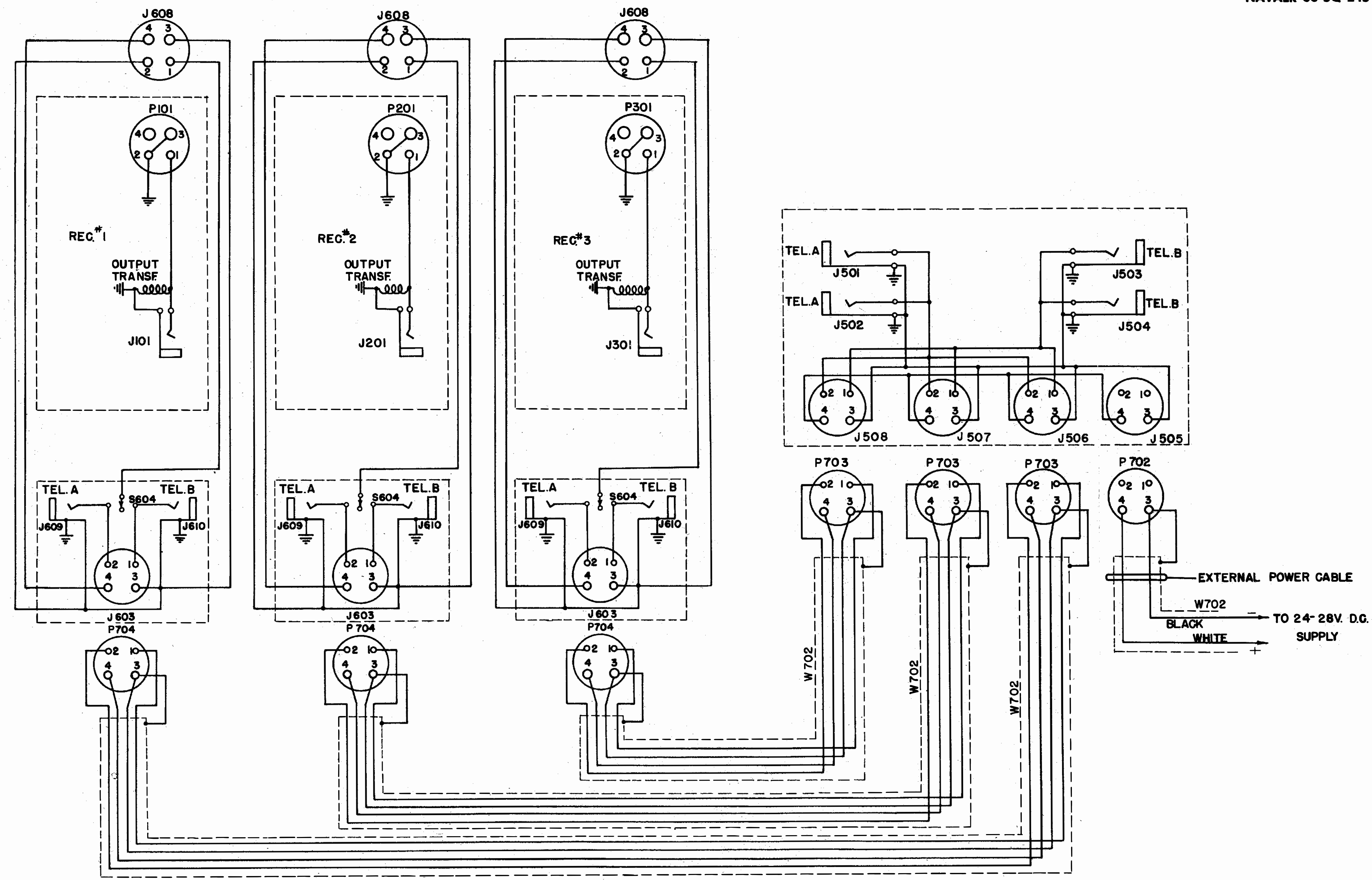
Connection Diagram, Type CG-46116 Receiver Unit No. 2

W-7350830



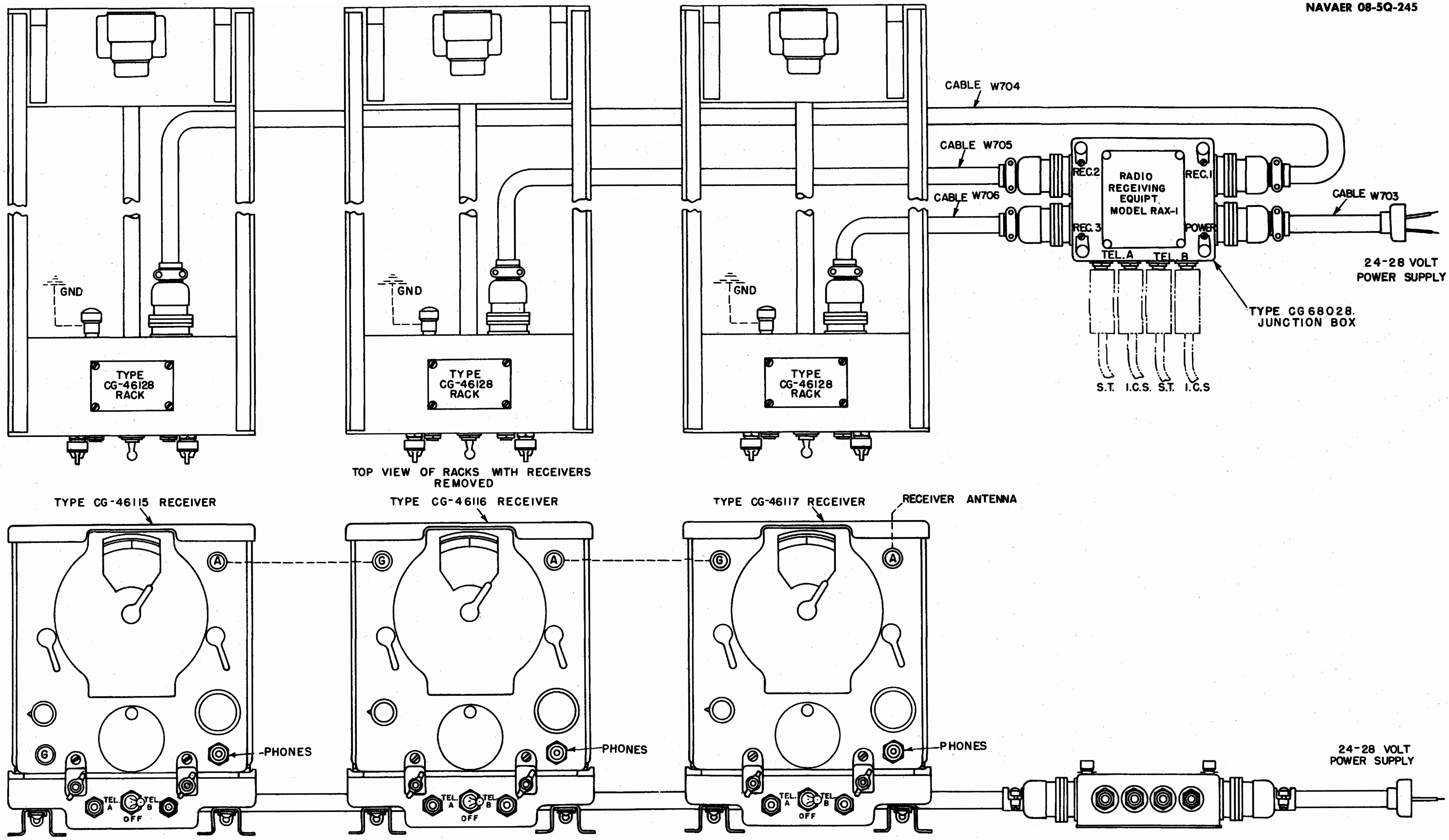
Connection Diagram, Type CG-46117 Receiver Unit No. 3

WW-7350186



Schematic Diagram of Single Receiver Mounting and External Connections

P-7763365



Cabling Diagram, Model RAX-1 Radio Receiving Equipment

P-7764087