Handbook of Preliminary Instructions

for

NAVY MODEL

RAX-1

Aircraft Radio Equipment

NOTICE.—This document contains information affecting the national defense of the United States within the meaning of the Espionage Act, 50 U. S. C., 31 and 32, as amended. Its transmission or the revelation of its contents in any manner to an unauthorized person is prohibited by law.

Reprinted 15 March 1945
Navy Regulations, Article 76, contains the following statements relating to the handling of restricted matter:

Par. (9) (a). Restricted matter may be disclosed to persons of the Military or Naval Establishments in accordance with special instructions issued by the originator or other competent authority, or in the absence of special instructions, as determined by the local administrative head charged with custody of the subject matter.

(b) Restricted matter may be disclosed to persons of discretion in the Government service when it appears to be in the public interest.

(c) Restricted matter may be disclosed, under special circumstances, to persons not in the Government service when it appears to be in the public interest.

These instructions permit the issue of restricted publications to civilian contract and other accredited schools engaged in training personnel for Government work, to civilian concerns contracting for overhaul and repair of aircraft or aircraft accessories and to similar commercial organizations.

LIST OF REVISED PAGES ISSUED

NOTE.—A heavy black vertical line to the left of the text on revised pages indicates the extent of the revision. This line is omitted where more than 50 percent of the page is involved.
# TABLE OF CONTENTS

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

RECEIVER UNIT NO. 1

<table>
<thead>
<tr>
<th>Curve Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>K-7883551 AVC Curve</td>
<td>83</td>
</tr>
<tr>
<td>K-7883552 MCW Overload Curve</td>
<td>84</td>
</tr>
<tr>
<td>K-7883553 CW Overload Curve</td>
<td>85</td>
</tr>
<tr>
<td>K-7883554 I-f Selectivity Curve</td>
<td>86</td>
</tr>
<tr>
<td>K-7883555 Over-all Selectivity Curve, Band No. 1</td>
<td>87</td>
</tr>
<tr>
<td>K-7883556 Over-all Selectivity Curve, Band No. 2</td>
<td>88</td>
</tr>
<tr>
<td>K-7883557 Over-all Selectivity Curve, Band No. 3 and 4</td>
<td>89</td>
</tr>
<tr>
<td>K-7883558 Sensitivity Curve</td>
<td>90</td>
</tr>
<tr>
<td>K-7883559 I-f and Image Rejection</td>
<td>91</td>
</tr>
</tbody>
</table>

RECEIVER UNIT NO. 2

<table>
<thead>
<tr>
<th>Curve Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>K-7883560 AVC Curve</td>
<td>92</td>
</tr>
<tr>
<td>K-7883561 MCW Overload Curve</td>
<td>93</td>
</tr>
<tr>
<td>K-7883562 CW Overload Curve</td>
<td>94</td>
</tr>
<tr>
<td>K-7883563 I-f Selectivity Curve</td>
<td>95</td>
</tr>
<tr>
<td>K-7883564 Over-all Selectivity Curve, Band No. 1</td>
<td>96</td>
</tr>
<tr>
<td>K-7883565 Over-all Selectivity Curve, Band No. 2</td>
<td>97</td>
</tr>
<tr>
<td>K-7883566 Over-all Selectivity Curve, Band No. 3 and 4</td>
<td>98</td>
</tr>
<tr>
<td>K-7883567 Sensitivity Curve</td>
<td>99</td>
</tr>
<tr>
<td>K-7883568 I-f and Image Rejection</td>
<td>100</td>
</tr>
</tbody>
</table>

RECEIVER UNIT NO. 3

<table>
<thead>
<tr>
<th>Curve Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>K-7883569 AVC Curve</td>
<td>101</td>
</tr>
<tr>
<td>K-7883570 MCW Overload Curve</td>
<td>102</td>
</tr>
<tr>
<td>K-7883571 CW Overload Curve</td>
<td>103</td>
</tr>
<tr>
<td>K-7883572 I-f Selectivity Curve</td>
<td>104</td>
</tr>
<tr>
<td>K-7883573 Over-all Selectivity Curve, Band No. 1</td>
<td>105</td>
</tr>
<tr>
<td>K-7883574 Over-all Selectivity Curve, Band No. 2</td>
<td>106</td>
</tr>
<tr>
<td>K-7883575 Over-all Selectivity Curve, Band No. 3 and 4</td>
<td>107</td>
</tr>
<tr>
<td>K-7883576 Sensitivity Curve</td>
<td>108</td>
</tr>
<tr>
<td>K-7883577 I-f and Image Rejection</td>
<td>109</td>
</tr>
</tbody>
</table>

LIST OF DRAWINGS

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

The equipment, including all parts and spare parts, except vacuum tubes, is guaranteed for a service period of ONE YEAR from the date of delivery of the equipment to and acceptance by 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 personnel 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

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—0.90 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.


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-f Amplifier
1—Type—12A6 as Audio 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 I-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—71/2 in.
   Width—71/2 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:

<table>
<thead>
<tr>
<th>Measurement</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Height</td>
<td>3(\frac{3}{8}) in.</td>
</tr>
<tr>
<td>Width</td>
<td>7(\frac{1}{2}) in.</td>
</tr>
<tr>
<td>Length</td>
<td>16(\frac{5}{8}) in.</td>
</tr>
<tr>
<td>Weight</td>
<td>2.8 lb.</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Measurement</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Height</td>
<td>2 in.</td>
</tr>
<tr>
<td>Width</td>
<td>4 in.</td>
</tr>
<tr>
<td>Length</td>
<td>5(\frac{7}{16}) in.</td>
</tr>
<tr>
<td>Weight</td>
<td>1 lb.</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Measurement</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diameter</td>
<td>1 5/16 in.</td>
</tr>
<tr>
<td>Length</td>
<td>2 5/16 in.</td>
</tr>
<tr>
<td>Weight (one)</td>
<td>.12 lb.</td>
</tr>
</tbody>
</table>

**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 tabletop 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 dial scale in use is visible for a given setting of the band switch. 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.

(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 screws 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 non-removable thumbscrews in the covers of the box. These thumbscrews 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.

<table>
<thead>
<tr>
<th>COLUMN I</th>
<th>COLUMN II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>Local Oscillator Frequency</td>
</tr>
<tr>
<td>Band No. 1</td>
<td>200—300 kc</td>
</tr>
<tr>
<td>Band No. 2</td>
<td>300—500 kc</td>
</tr>
<tr>
<td>Band No. 3</td>
<td>500—900 kc</td>
</tr>
<tr>
<td>Band No. 4</td>
<td>900—1500 kc</td>
</tr>
</tbody>
</table>

(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 section 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 against 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.

(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 voltage 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.

<table>
<thead>
<tr>
<th>COLUMN I</th>
<th>COLUMN II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signal Frequency</td>
<td>Local Oscillator Frequency</td>
</tr>
<tr>
<td>Band No. 1</td>
<td>1.5—2.4 mc</td>
</tr>
<tr>
<td>Band No. 2</td>
<td>2.4—3.8 mc</td>
</tr>
<tr>
<td>Band No. 3</td>
<td>3.8—6.0 mc</td>
</tr>
<tr>
<td>Band No. 4</td>
<td>6.0—9.0 mc</td>
</tr>
</tbody>
</table>

(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 r-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 first r-f transformers (T219, T220, T221, or T222. As in the antenna and first r-f circuits, 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 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 sufficient 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.

<table>
<thead>
<tr>
<th>COLUMN I</th>
<th>COLUMN II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signal Frequency</td>
<td>Local Oscillator Frequency</td>
</tr>
<tr>
<td>Band No. 1</td>
<td>7.0—10.0 mc</td>
</tr>
<tr>
<td>Band No. 2</td>
<td>10.0—13.0 mc</td>
</tr>
<tr>
<td>Band No. 3</td>
<td>13.0—17.5 mc</td>
</tr>
<tr>
<td>Band No. 4</td>
<td>17.5—22.5 mc</td>
</tr>
<tr>
<td>Band No. 5</td>
<td>22.5—27.0 mc</td>
</tr>
</tbody>
</table>

(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 cumulative effect 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, R335, 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.
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.

### 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.

IV. OPERATION AND ADJUSTMENTS

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.

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 mfd.

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 sensitivity 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

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 EMMERY 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 $-32^\circ$ C ($-25.6^\circ$ F). In addition, a rust preventative and an oxidation inhibitor have been added. A suitable oil for this application is General Electric oil D685, 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 Dixon 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 1 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

<table>
<thead>
<tr>
<th>Socket</th>
<th>Controls</th>
<th>Terminals</th>
</tr>
</thead>
<tbody>
<tr>
<td>X101</td>
<td>Standard</td>
<td>0 27 0 4.8 87 13.5 152</td>
</tr>
<tr>
<td>X101</td>
<td>Band No. 2</td>
<td>0 6</td>
</tr>
<tr>
<td>X101</td>
<td>Band No. 3</td>
<td>0 4.8</td>
</tr>
<tr>
<td>X101</td>
<td>Vol. MIN</td>
<td>0 37.5</td>
</tr>
<tr>
<td>X101</td>
<td>Band No. 4</td>
<td>0</td>
</tr>
<tr>
<td>X102</td>
<td>Standard</td>
<td>0 13.5 15.5 91 57 0 6.6</td>
</tr>
<tr>
<td>X103</td>
<td>Standard</td>
<td>0 27 0 4.3 85 13.5 155</td>
</tr>
<tr>
<td>X104</td>
<td>Standard</td>
<td>0 13.5 0 2.6 83 0 150</td>
</tr>
<tr>
<td>X105</td>
<td>Standard</td>
<td>0 13.5 135 153 0 27 7.6</td>
</tr>
<tr>
<td>X106</td>
<td>Standard</td>
<td>0 31.3 0 0 13.5</td>
</tr>
<tr>
<td>X106</td>
<td>AVC</td>
<td>0 14.5</td>
</tr>
<tr>
<td>X106</td>
<td>CW</td>
<td>0 17.5 40</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Socket</th>
<th>Controls</th>
<th>Terminals</th>
</tr>
</thead>
<tbody>
<tr>
<td>X201</td>
<td>Standard</td>
<td>0 27 0 3.1 92 13.5 135</td>
</tr>
<tr>
<td>X201</td>
<td>Vol. MIN</td>
<td>0 24</td>
</tr>
<tr>
<td>X202</td>
<td>Standard</td>
<td>0 13.5 0 6.4 92 0 140</td>
</tr>
<tr>
<td>X202</td>
<td>Band No. 2</td>
<td>0 8.2</td>
</tr>
<tr>
<td>X202</td>
<td>Band No. 3</td>
<td>0 4.9</td>
</tr>
<tr>
<td>X202</td>
<td>Band No. 4</td>
<td>0 2.9</td>
</tr>
<tr>
<td>X203</td>
<td>Standard</td>
<td>0 0 148 85 65 13.5 3.2</td>
</tr>
<tr>
<td>X204</td>
<td>Standard</td>
<td>0 27 0 5 90 13.5 124</td>
</tr>
<tr>
<td>X205</td>
<td>Standard</td>
<td>0 27 13.5 3.4 100 13.5 132</td>
</tr>
<tr>
<td>X206</td>
<td>Standard</td>
<td>0 13.5 5.2 5.2 122 0 142</td>
</tr>
<tr>
<td>X207</td>
<td>Standard</td>
<td>0 13.5 135 150 0 27 6.8</td>
</tr>
<tr>
<td>X208</td>
<td>Standard</td>
<td>0 37.5 0 0 13.5</td>
</tr>
<tr>
<td>X208</td>
<td>AVC</td>
<td>0 14.5</td>
</tr>
<tr>
<td>X208</td>
<td>CW</td>
<td>0 37.5 110</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Socket</th>
<th>Controls</th>
<th>Terminals</th>
</tr>
</thead>
<tbody>
<tr>
<td>X301</td>
<td>Standard</td>
<td>0 27 0 2.5 92 13.5 132</td>
</tr>
<tr>
<td>X301</td>
<td>Vol. MIN</td>
<td>0 25</td>
</tr>
<tr>
<td>X302</td>
<td>Standard</td>
<td>0 0 150 95 4 80 13.5 4.1</td>
</tr>
<tr>
<td>X303</td>
<td>Standard</td>
<td>0 27 0 4.2 92 13.5 145</td>
</tr>
<tr>
<td>X304</td>
<td>Standard</td>
<td>0 27 0 6.1 92 13.5 145</td>
</tr>
<tr>
<td>X305</td>
<td>Standard</td>
<td>0 13.5 0 3.5 106 0 145</td>
</tr>
<tr>
<td>X306</td>
<td>Standard</td>
<td>0 13.5 135 150 0 27 6.8</td>
</tr>
<tr>
<td>X307</td>
<td>Standard</td>
<td>0 29 39 24.5 0 0 13.5</td>
</tr>
<tr>
<td>X307</td>
<td>AVC</td>
<td>0 16 16 13.5 0</td>
</tr>
<tr>
<td>X307</td>
<td>CW</td>
<td>0 15.5 25 12 88</td>
</tr>
<tr>
<td>X308</td>
<td>Standard</td>
<td>0 13.5 0 6 97 0 145</td>
</tr>
<tr>
<td>X308</td>
<td>Band No. 2</td>
<td>0 2.6</td>
</tr>
<tr>
<td>X308</td>
<td>Band No. 3</td>
<td>0 2.7</td>
</tr>
</tbody>
</table>

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**

<table>
<thead>
<tr>
<th>Socket</th>
<th>Controls</th>
<th>Terminals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td><strong>1</strong></td>
</tr>
<tr>
<td>X101</td>
<td>Standard</td>
<td>0</td>
</tr>
<tr>
<td>X101</td>
<td>Band No. 2</td>
<td>0</td>
</tr>
<tr>
<td>X101</td>
<td>Band No. 3</td>
<td>0</td>
</tr>
<tr>
<td>X101</td>
<td>Vol. MIN</td>
<td>0</td>
</tr>
<tr>
<td>X101</td>
<td>Band No. 4</td>
<td>0</td>
</tr>
<tr>
<td>X101</td>
<td>Band No. 4 (H.F. End)</td>
<td>0</td>
</tr>
<tr>
<td>X102</td>
<td>Standard</td>
<td>0</td>
</tr>
<tr>
<td>X103</td>
<td>Standard</td>
<td>0</td>
</tr>
<tr>
<td>X104</td>
<td>Standard</td>
<td>0</td>
</tr>
<tr>
<td>X105</td>
<td>Standard</td>
<td>0</td>
</tr>
<tr>
<td>X106</td>
<td>Standard</td>
<td>0</td>
</tr>
<tr>
<td>X106</td>
<td>AVC</td>
<td>0</td>
</tr>
<tr>
<td>X106</td>
<td>CW</td>
<td>0</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Socket</th>
<th>Controls</th>
<th>Terminals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td><strong>1</strong></td>
</tr>
<tr>
<td>X201</td>
<td>Standard</td>
<td>0</td>
</tr>
<tr>
<td>X201</td>
<td>Vol. MIN</td>
<td>0</td>
</tr>
<tr>
<td>X202</td>
<td>Standard</td>
<td>0</td>
</tr>
<tr>
<td>X202</td>
<td>Band No. 2</td>
<td>0</td>
</tr>
<tr>
<td>X202</td>
<td>Band No. 3</td>
<td>0</td>
</tr>
<tr>
<td>X202</td>
<td>Band No. 4</td>
<td>0</td>
</tr>
<tr>
<td>X203</td>
<td>Standard</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X204</td>
<td>Standard</td>
<td>0</td>
</tr>
<tr>
<td>X205</td>
<td>Standard</td>
<td>0</td>
</tr>
<tr>
<td>X206</td>
<td>Standard</td>
<td>0</td>
</tr>
<tr>
<td>X207</td>
<td>Standard</td>
<td>0</td>
</tr>
<tr>
<td>X208</td>
<td>Standard</td>
<td>0</td>
</tr>
<tr>
<td>X208</td>
<td>AVC</td>
<td>0</td>
</tr>
<tr>
<td>X208</td>
<td>CW</td>
<td>0</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Socket</th>
<th>Controls</th>
<th>Terminals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td><strong>1</strong></td>
</tr>
<tr>
<td>X301</td>
<td>Standard</td>
<td>0</td>
</tr>
<tr>
<td>X301</td>
<td>Vol. MIN</td>
<td>0</td>
</tr>
<tr>
<td>X302</td>
<td>Standard</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X303</td>
<td>Standard</td>
<td>0</td>
</tr>
<tr>
<td>X304</td>
<td>Standard</td>
<td>0</td>
</tr>
<tr>
<td>X305</td>
<td>Standard</td>
<td>0</td>
</tr>
<tr>
<td>X306</td>
<td>Standard</td>
<td>0</td>
</tr>
<tr>
<td>X307</td>
<td>Standard</td>
<td>0</td>
</tr>
<tr>
<td>X307</td>
<td>AVC</td>
<td>0</td>
</tr>
<tr>
<td>X307</td>
<td>CW</td>
<td>0</td>
</tr>
<tr>
<td>X308</td>
<td>Standard</td>
<td>0</td>
</tr>
<tr>
<td>X308</td>
<td>Band No. 2</td>
<td>0</td>
</tr>
<tr>
<td>X308</td>
<td>Band No. 3</td>
<td>0</td>
</tr>
<tr>
<td>X308</td>
<td>Band No. 4</td>
<td>0</td>
</tr>
</tbody>
</table>

**RESTRICTED**
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, 1/2-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 XI02)

<table>
<thead>
<tr>
<th>CURRENT IN MICROAMPERES</th>
<th>(through 1/2 megohm)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Low-frequency End</strong></td>
<td><strong>High-frequency End</strong></td>
</tr>
<tr>
<td>Band No. 1</td>
<td>10</td>
</tr>
<tr>
<td>Band No. 2</td>
<td>12.5</td>
</tr>
<tr>
<td>Band No. 3</td>
<td>27</td>
</tr>
<tr>
<td>Band No. 4</td>
<td>11</td>
</tr>
</tbody>
</table>

(2) Beat oscillator grid-to-cathode test (terminal 2 to terminal 3, Socket XI06): 10.5 microamperes through 1/2 megohm

(3) Main diode detector output test (across R237) with radio receiver on CW: 18 microamperes through 1/2 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)

<table>
<thead>
<tr>
<th>CURRENT IN MICROAMPERES</th>
<th>(through 1/2 megohm)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Low-frequency End</strong></td>
<td><strong>High-frequency End</strong></td>
</tr>
<tr>
<td>Band No. 1</td>
<td>7</td>
</tr>
<tr>
<td>Band No. 2</td>
<td>9</td>
</tr>
<tr>
<td>Band No. 3</td>
<td>9.5</td>
</tr>
<tr>
<td>Band No. 4</td>
<td>6.6</td>
</tr>
<tr>
<td>Band No. 5</td>
<td>7</td>
</tr>
</tbody>
</table>

(2) Beat oscillator grid-to-cathode test (terminal 2 to terminal 3, Socket X307): 8 microamperes through 1/2 megohm

(3) Main diode detector output test (across R334) with radio receiver on CW: 10 microamperes through 1/2 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)

<table>
<thead>
<tr>
<th>CURRENT IN MICROAMPERES</th>
<th>(through 1/2 megohm)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Low-frequency End</strong></td>
<td><strong>High-frequency End</strong></td>
</tr>
<tr>
<td>Band No. 1</td>
<td>7</td>
</tr>
<tr>
<td>Band No. 2</td>
<td>9</td>
</tr>
<tr>
<td>Band No. 3</td>
<td>9.5</td>
</tr>
<tr>
<td>Band No. 4</td>
<td>6.6</td>
</tr>
<tr>
<td>Band No. 5</td>
<td>7</td>
</tr>
</tbody>
</table>

(2) Beat oscillator grid-to-cathode test (terminal 2 to terminal 3, Socket X307): 8 microamperes through 1/2 megohm

(3) Main diode detector output test (across R334) with radio receiver on CW: 10 microamperes through 1/2 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*

<table>
<thead>
<tr>
<th>Stage</th>
<th>A-f</th>
<th>I-f 2</th>
<th>I-f 1</th>
<th>Conv.</th>
<th>R-f</th>
<th>ANT.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freq.</td>
<td>V105</td>
<td>V104</td>
<td>V103</td>
<td>V102</td>
<td>V101</td>
<td>Pin 4</td>
</tr>
<tr>
<td></td>
<td>Pin 4</td>
<td>Pin 4</td>
<td>Pin 4</td>
<td>Cap</td>
<td>Pin 4</td>
<td>Pin 4</td>
</tr>
<tr>
<td>400 cycles</td>
<td>0.72V</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>160 kc</td>
<td>0.72V</td>
<td>X</td>
<td>X</td>
<td>1450</td>
<td>100</td>
<td>12.5</td>
</tr>
<tr>
<td>210 kc</td>
<td>0.72V</td>
<td>X</td>
<td>X</td>
<td>180</td>
<td>5.7</td>
<td>2.2*</td>
</tr>
<tr>
<td>290 kc</td>
<td>0.72V</td>
<td>X</td>
<td>145</td>
<td>7.3</td>
<td>2.0*</td>
<td></td>
</tr>
<tr>
<td>320 kc</td>
<td>0.72V</td>
<td>X</td>
<td>110</td>
<td>6.1</td>
<td>2.3*</td>
<td></td>
</tr>
<tr>
<td>480 kc</td>
<td>0.72V</td>
<td>X</td>
<td>110</td>
<td>7.2</td>
<td>1.7*</td>
<td></td>
</tr>
<tr>
<td>530 kc</td>
<td>0.72V</td>
<td>X</td>
<td>260</td>
<td>7.4</td>
<td>2.7*</td>
<td></td>
</tr>
<tr>
<td>850 kc</td>
<td>0.72V</td>
<td>X</td>
<td>155</td>
<td>6.8</td>
<td>1.7*</td>
<td></td>
</tr>
<tr>
<td>950 kc</td>
<td>0.72V</td>
<td>X</td>
<td>155</td>
<td>6.8</td>
<td>1.7*</td>
<td></td>
</tr>
<tr>
<td>1450 kc</td>
<td>0.72V</td>
<td>X</td>
<td>155</td>
<td>6.8</td>
<td>1.7*</td>
<td></td>
</tr>
</tbody>
</table>

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

**MICROVOLTS**

<table>
<thead>
<tr>
<th>Stage</th>
<th>A-f</th>
<th>I-f 2</th>
<th>I-f 1</th>
<th>Conv.</th>
<th>R-f 2</th>
<th>R-f 1</th>
<th>ANT.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freq.</td>
<td>V207</td>
<td>V206</td>
<td>V205</td>
<td>V204</td>
<td>V203</td>
<td>V202</td>
<td>V201</td>
</tr>
<tr>
<td></td>
<td>Pin 4</td>
<td>Pin 4</td>
<td>Pin 4</td>
<td>Pin 4</td>
<td>Cap</td>
<td>Pin 4</td>
<td>Pin 4</td>
</tr>
<tr>
<td>400 cycles</td>
<td>0.72V</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>915 kc</td>
<td>0.72V</td>
<td>X</td>
<td>6900</td>
<td>585</td>
<td>93</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>1.55 mc</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>130</td>
<td>95</td>
<td>10.5</td>
</tr>
<tr>
<td>2.35 mc</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>130</td>
<td>95</td>
<td>10.5</td>
</tr>
<tr>
<td>2.45 mc</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>135</td>
<td>80</td>
<td>15</td>
</tr>
<tr>
<td>3.7 mc</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>130</td>
<td>95</td>
<td>15</td>
</tr>
<tr>
<td>5.9 mc</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>150</td>
<td>80</td>
<td>15</td>
</tr>
<tr>
<td>6.1 mc</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>140</td>
<td>80</td>
<td>15</td>
</tr>
<tr>
<td>8.8 mc</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>150</td>
<td>80</td>
<td>15</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Stage</th>
<th>A-f</th>
<th>I-f 2</th>
<th>I-f 1</th>
<th>Conv.</th>
<th>R-f 2</th>
<th>R-f 1</th>
<th>ANT.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freq.</td>
<td>V306</td>
<td>V305</td>
<td>V304</td>
<td>V303</td>
<td>V302</td>
<td>V301</td>
<td>Pin 4</td>
</tr>
<tr>
<td></td>
<td>Pin 4</td>
<td>Pin 4</td>
<td>Pin 4</td>
<td>Pin 4</td>
<td>Cap</td>
<td>Pin 4</td>
<td>Pin 4</td>
</tr>
<tr>
<td>400 cycles</td>
<td>0.72V</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>2.275 mc</td>
<td>X</td>
<td>0.104V</td>
<td>5700</td>
<td>350</td>
<td>75</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>7.2 mc</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>100</td>
<td>25</td>
<td>7.5*</td>
</tr>
<tr>
<td>9.8 mc</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>100</td>
<td>25</td>
<td>7.5*</td>
</tr>
<tr>
<td>10.2 mc</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>100</td>
<td>17</td>
<td>4.3*</td>
</tr>
<tr>
<td>12.8 mc</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>100</td>
<td>17</td>
<td>4.3*</td>
</tr>
<tr>
<td>13.3 mc</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>80</td>
<td>22</td>
<td>6.0*</td>
</tr>
<tr>
<td>17.2 mc</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>87</td>
<td>52</td>
<td>7.2*</td>
</tr>
<tr>
<td>17.8 mc</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>80</td>
<td>14</td>
<td>5.5*</td>
</tr>
<tr>
<td>22.2 mc</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>88</td>
<td>36</td>
<td>7.6*</td>
</tr>
<tr>
<td>22.8 mc</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>96</td>
<td>23</td>
<td>7.6*</td>
</tr>
<tr>
<td>26.7 mc</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>88</td>
<td>19</td>
<td>6.5*</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Resistor and Capacitor Color Code</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Color</strong></td>
</tr>
<tr>
<td>Black</td>
</tr>
<tr>
<td>Brown</td>
</tr>
<tr>
<td>Red</td>
</tr>
<tr>
<td>Orange</td>
</tr>
<tr>
<td>Yellow</td>
</tr>
<tr>
<td>Green</td>
</tr>
<tr>
<td>Blue</td>
</tr>
<tr>
<td>Violet</td>
</tr>
<tr>
<td>Gray</td>
</tr>
<tr>
<td>White</td>
</tr>
</tbody>
</table>

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 \( \frac{1}{2} \) mfd between the positive generator field terminal and ground, and a second condenser of \( \frac{1}{2} \) 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 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 heterodyne 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 microamperometer 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.

b. 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 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.

<table>
<thead>
<tr>
<th>Navy Type Number</th>
<th>Major Units</th>
<th>Symbol Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>CG-46115</td>
<td>Receiver (200-1500 Kc)</td>
<td>101 to 199</td>
</tr>
<tr>
<td>CG-46116</td>
<td>Receiver (1500-9000 Kc)</td>
<td>201 to 299</td>
</tr>
<tr>
<td>CG-46117</td>
<td>Receiver (7000-27,000 Kc)</td>
<td>301 to 399</td>
</tr>
<tr>
<td>CG-46128</td>
<td>Receiver Rack</td>
<td>601 to 699</td>
</tr>
<tr>
<td>CG-62028</td>
<td>Junction Box</td>
<td>501 to 599</td>
</tr>
<tr>
<td>None</td>
<td>Cable M7465168P2 &amp; 3</td>
<td>701 to 799</td>
</tr>
</tbody>
</table>
### TABLE VI
**PARTS LIST BY SYMBOL DESIGNATIONS**
**FOR**
**NAVY MODEL RAX-1 AIRCRAFT RADIO RECEIVING EQUIPMENT**
**RADIO RECEIVER 200-1500 KC, NAVY TYPE CO-46115**

<table>
<thead>
<tr>
<th>SYMBOL DESIGNATION</th>
<th>FUNCTION</th>
<th>DESCRIPTION</th>
<th>NAVY TYPE DESIGN</th>
<th>NAVY Dwg. OR SPEC. NUMBER</th>
<th>MFR. DESIGN.</th>
<th>CONTRACTOR’S DRAWING AND PART NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>C101</td>
<td>-</td>
<td>Not Used</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C102</td>
<td>-</td>
<td>Band 4, Antenna Trimming Capacitor</td>
<td>Variable, 50 mfd, terminal on left</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>C103</td>
<td>-</td>
<td>Band 3, Antenna Trimming Capacitor</td>
<td>Variable, 50 mfd, terminal on right</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>C104</td>
<td>-</td>
<td>Band 2, Antenna Trimming Capacitor</td>
<td>Same as C102</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>C105</td>
<td>-</td>
<td>Band 1, Antenna Trimming Capacitor</td>
<td>Same as C103</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>C106</td>
<td>-</td>
<td>Converter AVC Filter Capacitor</td>
<td>Paper, 0.05 mfd ±10%, 400 volts</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>C107</td>
<td>-</td>
<td>R-f AVC Filter Capacitor</td>
<td>Paper, 0.01 mfd ±10%, 600 volts d-c working</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>C108</td>
<td>-</td>
<td>Antenna Paddling Capacitor</td>
<td>Mica, 0.00005 mfd ±10%, 500 volts d-c working</td>
<td>CD-48895-D10</td>
<td>RE 13A 488C</td>
<td>1</td>
</tr>
<tr>
<td>C109</td>
<td>-</td>
<td>Variable Tuning Gang Capacitor</td>
<td>Mica, 0.00005 mfd ±10%, 500 volts d-c working</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>C109A</td>
<td>-</td>
<td>Converter Tuning Capacitor</td>
<td>Paper, 0.01 mfd ±10%, 600 volts d-c working</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>C109B</td>
<td>-</td>
<td>R-f Tuning Capacitor</td>
<td>Included in C109</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>C109C</td>
<td>-</td>
<td>R-f Oscillator Tuning Capacitor</td>
<td>Included in C109</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>C110</td>
<td>-</td>
<td>Band 4, Antenna Coupling Capacitor</td>
<td>Mica, 0.00001 mfd ±10%, 500 volts d-c working</td>
<td>CD-48710-D10</td>
<td>RE 13A 361K</td>
<td>1</td>
</tr>
<tr>
<td>C111</td>
<td>-</td>
<td>R-f Screen By-pass Capacitor</td>
<td>Mica, 0.005 mfd ±10%, 300 volts d-c working</td>
<td>CD-48887-B10</td>
<td>RE 48A 143K</td>
<td>1</td>
</tr>
<tr>
<td>C112</td>
<td>-</td>
<td>R-f Plate By-pass Capacitor</td>
<td>Same as C106</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>C113</td>
<td>-</td>
<td>Band 3, R-f Trimming Capacitor</td>
<td>Same as C103</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>C114</td>
<td>-</td>
<td>Band 2, R-f Trimming Capacitor</td>
<td>Same as C102</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>C115</td>
<td>-</td>
<td>Band 1, R-f Trimming Capacitor</td>
<td>Same as C103</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>C116</td>
<td>-</td>
<td>Band 4, R-f Trimming Capacitor</td>
<td>Same as C103</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>C117</td>
<td>-</td>
<td>Band 4, Antenna Series Paddling Capacitor</td>
<td>Mica, 2350 mfd ±5%, 250 volts d-c working</td>
<td>-</td>
<td>-</td>
<td>4</td>
</tr>
<tr>
<td>C118</td>
<td>-</td>
<td>R-f Paddling Capacitor</td>
<td>Same as C108</td>
<td>CD-48895-D10</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

△ 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

<table>
<thead>
<tr>
<th>SYMBOL DESIGNATION</th>
<th>FUNCTION</th>
<th>DESCRIPTION</th>
<th>NAVY TYPE</th>
<th>NAVY DMG. OR SPEC. NUMBER</th>
<th>MFR. DESIGN.</th>
<th>CONTRACTOR'S DRAWING AND PART NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>*C119</td>
<td>Antenna Wave Trap Capacitor</td>
<td>Mica, 0.00007 mfd ±10%, 500 volts, d-c working, (Included with Wave Trap Z101)</td>
<td>CD-48839-D10</td>
<td>RE 13A 389K</td>
<td>1 Cat. No. 585</td>
<td>M-7463969-P9</td>
</tr>
<tr>
<td>*C120</td>
<td>Band 1, R-f Padding Capacitor</td>
<td>Same as C119</td>
<td>CD-48839-D10</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>C121</td>
<td>R-f Wave Trap Capacitor</td>
<td>Same as C120. (Included with Wave Trap Z102)</td>
<td>CD-48711-D10</td>
<td>RE 13A 389K</td>
<td>1 Cat. No. 585</td>
<td>M-7463969-P5</td>
</tr>
<tr>
<td>*C122</td>
<td>Band 1, Antenna Coupling Capacitor</td>
<td>Mica, 0.00025 mfd ±10%, 500 volts, d-c working</td>
<td>CD-48847-B10</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C123</td>
<td>R-f Suppressor By-pass Capacitor</td>
<td>Same as C111</td>
<td>CD-48847-B10</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C124</td>
<td>Band 1, R-f Primary Loading Capacitor</td>
<td>Mica, 0.00015 mfd ±10%, 500 volts, d-c working</td>
<td>CD-48689-D10</td>
<td>RE 13A 389K</td>
<td>1 Cat. No. 585</td>
<td>M-7463969-P11</td>
</tr>
<tr>
<td>*C125</td>
<td>R-f Cathode By-pass Capacitor</td>
<td>Same as C106</td>
<td>CD-48895-D10</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C126</td>
<td>Band 1, Antenna Tuning Capacitor</td>
<td>Same as C108</td>
<td>CD-48895-D10</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>C127</td>
<td>Band 4, R-f Oscillator Trimming Capacitor</td>
<td>Same as C102</td>
<td>CD-48895-D10</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>C128</td>
<td>Not Used</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>C129</td>
<td>Band 3, R-f Oscillator Trimming Capacitor</td>
<td>Same as C103</td>
<td>CD-48895-D10</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>C130</td>
<td>Not Used</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>C131</td>
<td>Band 2, R-f Oscillator Trimming Capacitor</td>
<td>Same as C102</td>
<td>CD-48895-D10</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C132</td>
<td>R-f Oscillator Temperature Compensating Capacitor</td>
<td>Ceramic, 15 mfd ±5%, 500 volts, d-c working, temperature coefficient, 0.0000680 mfd/°F</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>Type M680K (modified)</td>
</tr>
<tr>
<td>C133</td>
<td>Band 1, R-f Oscillator Trimming Capacitor</td>
<td>Same as C103</td>
<td>CD-48895-D10</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C134</td>
<td>R-f Oscillator Plate Blocking Capacitor</td>
<td>Mica, 500 mfd ±10%, 2500 volts, d-c working</td>
<td>RE 13A 389K</td>
<td>-</td>
<td>4</td>
<td>Type &quot;moulded silver cap&quot;</td>
</tr>
<tr>
<td>*C135</td>
<td>R-f Oscillator Paddling Capacitor</td>
<td>Mica, 30 mfd ±5%, 2500 volts, d-c working</td>
<td>RE 13A 389K</td>
<td>-</td>
<td>4</td>
<td>Type &quot;moulded silver cap&quot;</td>
</tr>
<tr>
<td>*C136</td>
<td>R-f Oscillator Temperature Compensating Capacitor</td>
<td>Same as C132</td>
<td>CD-48895-D10</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>C137</td>
<td>Not Used</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Δ Symbol part designation, if any.

* SPARE PARTS FURNISHED. Refer to Table III for quantities.
## TABLE VI (CONT'D)

### PARTS LIST BY SYMBOL DESIGNATIONS

**NAVY MODEL RAK-1 AIRCRAFT RADIO RECEIVING EQUIPMENT**

**RADIO RECEIVER 200-1500 KE, NAVY TYPE QG-46115**

<table>
<thead>
<tr>
<th>SYMBOL DESIGNATION</th>
<th>FUNCTION</th>
<th>DESCRIPTION</th>
<th>NAVY TYPE DESIG.</th>
<th>NAVY MFG. OR SPNC. NUMBER</th>
<th>MPN</th>
<th>CONTRACTOR'S DRAWING AND PART NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CAPACITORS (CONT'D)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*0138</td>
<td>Converter Cathode By-pass Capacitor</td>
<td>Same as 0106</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*0139</td>
<td>BFO Plate Blocking Capacitor</td>
<td>Same as 0134</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*0140</td>
<td>BFO Grid Blocking Capacitor</td>
<td>Mica, 50 mmfd ±5%, 250 volts d-c working</td>
<td>-</td>
<td>RE 13A 389K</td>
<td>4</td>
<td>Type &quot;moulded silver cap&quot;</td>
</tr>
<tr>
<td>*0141</td>
<td>BFO Trimmer Capacitor</td>
<td>Variable, 75 mmfd, terminal on left</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>Type &quot;moulded silver cap&quot;</td>
</tr>
<tr>
<td>*0142</td>
<td>BFO Tuning Capacitor</td>
<td>Mica, 730 mmfd ±0.9%, 250 volts d-c working</td>
<td>-</td>
<td>RE 13A 389K</td>
<td>4</td>
<td>Type &quot;moulded silver cap&quot;</td>
</tr>
<tr>
<td>0143</td>
<td>Not Used</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*0144</td>
<td>BFO Cathode By-pass Capacitor</td>
<td>Same as 0106</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*0145</td>
<td>Converter Screen By-pass Capacitor</td>
<td>Same as 0106</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*0146</td>
<td>R-f Oscillator Grid Blocking Capacitor</td>
<td>Same as 0140</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*0147</td>
<td>Band 1, R-f Oscillator Series Padding Capacitor</td>
<td>Mica, 600 mmfd ±5%, 250 volts d-c working</td>
<td>-</td>
<td>RE 13A 389K</td>
<td>4</td>
<td>Type &quot;moulded silver cap&quot;</td>
</tr>
<tr>
<td>*0148</td>
<td>Band 3, R-f Oscillator Series Padding Capacitor</td>
<td>Mica, 1100 mmfd ±5%, 250 volts d-c working</td>
<td>-</td>
<td>RE 13A 389K</td>
<td>4</td>
<td>Type &quot;moulded silver cap&quot;</td>
</tr>
<tr>
<td>*0149</td>
<td>Band 2, R-f Oscillator Series Padding Capacitor</td>
<td>Same as 0147</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*0150</td>
<td>Band 1, R-f Oscillator Series Padding Capacitor</td>
<td>Mica, 100 mmfd ±5%, 250 volts d-c working</td>
<td>-</td>
<td>RE 13A 389K</td>
<td>4</td>
<td>Type &quot;moulded silver cap&quot;</td>
</tr>
<tr>
<td>*0151</td>
<td>Converter Plate Filter Capacitor</td>
<td>Same as 0106</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*0152</td>
<td>1st I-f Grid Tuning Capacitor</td>
<td>Mica, 375 mmfd ±5%, 250 volts d-c working</td>
<td>-</td>
<td>RE 13A 389K</td>
<td>4</td>
<td>Type &quot;moulded silver cap&quot;</td>
</tr>
<tr>
<td>*0153</td>
<td>Converter Plate Tuning Capacitor</td>
<td>Same as 0152</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*0154</td>
<td>1st I-f AVC Filter Capacitor</td>
<td>Same as 0111</td>
<td>-</td>
<td>CD-48847-B10</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*0155</td>
<td>1st I-f Cathode By-pass Capacitor</td>
<td>Same as 0111</td>
<td>-</td>
<td>CD-48847-B10</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>0156</td>
<td>Not Used</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

△ Symbol part designation, if any.

* SPARE PARTS FURNISHED. Refer to Table III for quantities.

* Style or other applicable designation, if any.
<table>
<thead>
<tr>
<th>SYMBOL DESIGNATION</th>
<th>FUNCTION</th>
<th>DESCRIPTION</th>
<th>NAVY TYPE DESIGN</th>
<th>NAVY Inv. Gr Spec. Number</th>
<th>KFF</th>
<th>CONTRACTOR'S DRAWING AND PART NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;CO157&quot;</td>
<td>- AVC Filter Capacitor</td>
<td>Same as CI07</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>&quot;CO158&quot;</td>
<td>- Not Used</td>
<td>Same as CI11</td>
<td>CD-48847-B10</td>
<td>-</td>
<td>-</td>
<td>K-7876911</td>
</tr>
<tr>
<td>&quot;CO159&quot;</td>
<td>- 1st I-f Screen By-pass</td>
<td>Electrolytic, 3-16 mfd, +75%, -10%, 250 volts d-c. Three separate sections.</td>
<td>-</td>
<td>RE 13A 549A</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>&quot;CO160&quot;</td>
<td>- Power Supply Filter</td>
<td>Same as CI108</td>
<td>CD-48895-D10</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>&quot;CO161&quot;</td>
<td>- 2nd I-f Plate Tuning</td>
<td>Same as CI147</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>&quot;CO165&quot;</td>
<td>- Audio Diode Tuning Capacitor</td>
<td>Mica, 50 mfd, ±5%, 250 volts</td>
<td>-</td>
<td>RE 13A 389K</td>
<td>1</td>
<td>Type &quot;moulded silver cap&quot; K-7877485-P30</td>
</tr>
<tr>
<td>&quot;CO164&quot;</td>
<td>- 2nd I-f Plate Filter</td>
<td>Same as CI11</td>
<td>CD-48847-B10</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>&quot;CO166&quot;</td>
<td>- 1st I-f Grid Tuning</td>
<td>Mica, 50 mfd, ±5%, 250 volts</td>
<td>-</td>
<td>RE 13A 389K</td>
<td>4</td>
<td>Type &quot;moulded silver cap&quot; K-7877485-P40</td>
</tr>
<tr>
<td>&quot;CO167&quot;</td>
<td>- 1st I-f Plate Filter</td>
<td>Same as CI11</td>
<td>CD-48847-B10</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>&quot;CO168&quot;</td>
<td>- 2nd I-f Screen By-pass</td>
<td>Same as CI11</td>
<td>CD-48847-B10</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>&quot;CO169&quot;</td>
<td>- 2nd I-f Plate Filter</td>
<td>Same as CI106</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>&quot;CO170&quot;</td>
<td>- 2nd I-f Grid Filter</td>
<td>Same as CI11</td>
<td>CD-48847-B10</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>&quot;CO171&quot;</td>
<td>- Audio Diode Filter</td>
<td>Mica, 0.0004 mfd, ±10%, 500 volts</td>
<td>CD-481015-D10</td>
<td>RE 13A 389K</td>
<td>1</td>
<td>Cat. No. 5RS M-7463969-P15</td>
</tr>
<tr>
<td>&quot;CO172&quot;</td>
<td>- Audio Diode Filter</td>
<td>Mica, 0.0005 mfd, ±10%, 500 volts</td>
<td>CD-48693-D10</td>
<td>RE 13A 389K</td>
<td>1</td>
<td>Cat. No. 5RS M-7463969-P16</td>
</tr>
<tr>
<td>&quot;CO173&quot;</td>
<td>- Audio Cathode Filter</td>
<td>Paper, 0.5 mfd, ±3%, +10%, 600 volts</td>
<td>-</td>
<td>RE 13A 488C</td>
<td>1</td>
<td>Cat. No. DCR-6050 M-7464514-P4</td>
</tr>
</tbody>
</table>

Δ Symbol part designation, if any.

\* Style or other applicable designation, if any.

\* SPARE PARTS FURNISHED. Refer to Table III for quantities.
<table>
<thead>
<tr>
<th>SYMBOL DESIGNATION</th>
<th>FUNCTION</th>
<th>DESCRIPTION</th>
<th>NAVY TYPE DESIG.</th>
<th>NAVY DSNO. OR SPEC. NUMBER</th>
<th>MFR. DESIG.</th>
<th>CONTRACTOR'S DRAWING AND PART NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>C174</td>
<td>- Not Used</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>C175</td>
<td>- Not Used</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C176</td>
<td>- Audio Grid Blocking Capacitor</td>
<td>Paper, 0.25 mfd -3%, +10%, 600 volts d-c working</td>
<td>- RE 13A 488C</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C177</td>
<td>- Audio Cathode By-pass Capacitor</td>
<td>Electrolytic, 50 mfd +100%, -10%, 25 volts</td>
<td>- RE 13A 549A</td>
<td>-</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>*C178</td>
<td>- Audio Plate Filter Capacitor</td>
<td>Mica, 0.05 mfd +10%, 300 volts d-c working</td>
<td>- RE 13A 309K</td>
<td>-</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>*C179</td>
<td>- Power Supply Filter Capacitor</td>
<td>Same as C111</td>
<td>CD-48847-B10</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C180</td>
<td>- Power Supply Filter Capacitor</td>
<td>Mica, 0.05 mfd +10%, 500 volts d-c working</td>
<td>- RE 13A 389K</td>
<td>-</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>C181</td>
<td>- Not Used</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>C182</td>
<td>- Not Used</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C183</td>
<td>- Power Input Filter Capacitor</td>
<td>Same as C180</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C184</td>
<td>- Power Input Filter Capacitor</td>
<td>Electrolytic, 25 mfd +100%, -10%, 50 volts</td>
<td>- RE 13A 549A</td>
<td>-</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>C185</td>
<td>- Not Used</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>to</td>
<td>C190 Incl.</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C191</td>
<td>- Band 3, R-f Primary Loading Capacitor</td>
<td>Mica, 0.0001 mfd +10%, 500 volts d-c working</td>
<td>CD-48674-D10</td>
<td>RE 13A 389K</td>
<td>1</td>
<td>Cat. No. 585</td>
</tr>
<tr>
<td>*C192</td>
<td>- Band 2, R-f Primary Loading Capacitor</td>
<td>Same as C191</td>
<td>CD-48674-D10</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C193</td>
<td>- Band 4, R-f Series Padding Capacitor</td>
<td>Same as C117</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>C194</td>
<td>- Antenna Wave Trap Trimming Capacitor</td>
<td>Same as C102. (Included with Wave Trap Z101)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C195</td>
<td>- Band 2, Antenna Padding Capacitor</td>
<td>Same as C122</td>
<td>CD-48711-D10</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C196</td>
<td>- Band 2, R-f Padding Capacitor</td>
<td>Same as C122</td>
<td>CD-48711-D10</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>C197</td>
<td>- Antenna Trimming Capacitor</td>
<td>Variable, 25 mfd</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>APC Type B</td>
</tr>
<tr>
<td>*C198</td>
<td>- Band 1, R-f Coupling Capacitor</td>
<td>Same as C122</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C199</td>
<td>- Band 1, Antenna Primary Loading Capacitor</td>
<td>Same as C124</td>
<td>CD-48689-D10</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SYMBOL DESIGNATION</th>
<th>FUNCTION</th>
<th>DESCRIPTION</th>
<th>NAVY TYPE DESIG.</th>
<th>NAVY DSNO. OR SPEC. NUMBER</th>
<th>MFR. DESIG.</th>
<th>CONTRACTOR'S DRAWING AND PART NUMBER</th>
</tr>
</thead>
</table>

\* Symbol part designations, 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

<table>
<thead>
<tr>
<th>SYMBOL DESIGNATION</th>
<th>FUNCTION</th>
<th>DESCRIPTION</th>
<th>NAVY TYPE DESIGN.</th>
<th>NAVY Dwg. or Spec. Number</th>
<th>Mfr. Design.</th>
<th>CONTRACTOR'S DRAWING AND PART NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>D101</strong> - Dynamotor</td>
<td>Input, 28 volts</td>
<td>Output, 166 volts, 0.090 amp</td>
<td>-</td>
<td>-</td>
<td>- 6</td>
<td>-</td>
</tr>
<tr>
<td><strong>F101</strong> - Line Fuse</td>
<td>4 amp, 250 volts</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>7</td>
<td>-</td>
</tr>
<tr>
<td><strong>J101</strong> - Phone Jack</td>
<td>Single circuit, single contact</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>6</td>
<td>-</td>
</tr>
<tr>
<td><strong>L101</strong> - Not Used</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>L102</strong> - Not Used</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>L103</strong> - Power Supply R-f Choke Coll</td>
<td>Coll, 2 microhenries 25%, consists of (approx) 350 turns copper wire No. 28 AWG BDC Universal wound, 2 crosses per turn</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>-</td>
</tr>
<tr>
<td><strong>L104</strong> - Power Supply Reactor</td>
<td>0.5 henry, 0.082 amp d-c res.</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>-</td>
</tr>
<tr>
<td><strong>L105</strong> - Power Input R-f Choke Coll</td>
<td>Consists of 25 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</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>-</td>
</tr>
<tr>
<td><strong>L106</strong> - Wave Trap Coll</td>
<td>Consists of 3 coils, one 625 turns, other 425 turns, copper wire, Universal wound on 3/8-in. compound coil form (approx). (Included in Wave Trap Z102)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>-</td>
</tr>
<tr>
<td><strong>L107</strong> - Wave Trap Coll</td>
<td>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)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>-</td>
</tr>
<tr>
<td><strong>L108</strong> - Power Input R-f Choke Coll</td>
<td>Consists of 50 turns, copper wire, 0.025-in. bare, 0.033-in. DCC Universal wound, 2 crosses per turn on 1/2-in. isolated coil form</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>6</td>
<td>-</td>
</tr>
</tbody>
</table>

A 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 CO-46115**

<table>
<thead>
<tr>
<th>SYMBOL DESIGNATION</th>
<th>FUNCTION</th>
<th>DESCRIPTION</th>
<th>NAVY TYPE</th>
<th>NAVY ENG. OR SPEC. NUMBER</th>
<th>MFR.</th>
<th>MFR. DESIGN.</th>
<th>CONTRACTOR'S DRAWING AND PART NUMBER</th>
</tr>
</thead>
</table>

#### R-F CHOKE COILS AND INDUCTORS (CONT'D)

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Function</th>
<th>Description</th>
<th>Navy Type</th>
<th>Navy Eng. or Spec. Number</th>
<th>MFR.</th>
<th>MFR. Design.</th>
<th>Contractor's Drawing and Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>*L109</td>
<td>Audio Filter Reactor</td>
<td>Tested at 0.0075 amp d-c, 60 cycles, 2.48 henries, ±10%</td>
<td>-</td>
<td>-</td>
<td>6</td>
<td>Cat. No. 670794</td>
<td>K-7879066</td>
</tr>
</tbody>
</table>

#### PLUGS

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Function</th>
<th>Description</th>
<th>MFR. Design.</th>
<th>Contractor's Drawing and Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>P101</td>
<td>Power Plug</td>
<td>4 contacts</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

#### RESISTORS AND RHEOSTATS

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Function</th>
<th>Description</th>
<th>Navy Type</th>
<th>MFR. Design.</th>
<th>MFR. Design.</th>
</tr>
</thead>
<tbody>
<tr>
<td>R101</td>
<td>Not Used</td>
<td>-</td>
<td>-</td>
<td>8</td>
<td>RE 13A 3720</td>
</tr>
<tr>
<td>*R102</td>
<td>R-F Grid AVC Filter Resistor</td>
<td>Composition, 100,000 ohms ±10%, 1/2 watt</td>
<td>CBZ-63360</td>
<td>RE 13A 3720</td>
<td>8</td>
</tr>
<tr>
<td>*R103</td>
<td>Converter Grid Bias Resistor</td>
<td>Composition, 1.0 megohm ±10%, 1/2 watt</td>
<td>CBZ-63360</td>
<td>RE 13A 3720</td>
<td>8</td>
</tr>
<tr>
<td>R104</td>
<td>Not Used</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*R105</td>
<td>R-F Plate Filter Resistor</td>
<td>Composition, 750 ohms ±5%, 1/2 watt</td>
<td>CBZ-63360</td>
<td>RE 13A 3720</td>
<td>8</td>
</tr>
<tr>
<td>*R106</td>
<td>R-F Suppressor Resistor</td>
<td>Composition, 25,000 ohms ±10%, 1/2 watt</td>
<td>CBZ-63360</td>
<td>RE 13A 3720</td>
<td>8</td>
</tr>
<tr>
<td>*R107</td>
<td>Band 4, Antenna AVC Filter Resistor</td>
<td>Composition, 12,000 ohms ±10%, 1/2 watt</td>
<td>CBZ-63360</td>
<td>RE 13A 3720</td>
<td>8</td>
</tr>
<tr>
<td>*R108</td>
<td>Band 4, R-F Grid Return Resistor</td>
<td>Same as R107</td>
<td>CBZ-63360</td>
<td>RE 13A 3720</td>
<td>-</td>
</tr>
<tr>
<td>*R109</td>
<td>R-F Gain Equalizing Resistor</td>
<td>Composition, 1000 ohms ±10%, 1/2 watt</td>
<td>CBZ-63360</td>
<td>RE 13A 3720</td>
<td>8</td>
</tr>
<tr>
<td>*R110</td>
<td>Band 4, R-F Gain Equalizing Potentiometer</td>
<td>Total resistance, 5000 ohms ±15%, from terminals 2 to 4</td>
<td>CBZ-63360</td>
<td>RE 13A 3720</td>
<td>8</td>
</tr>
<tr>
<td>*R111</td>
<td>R-F Gain Equalizing Resistor</td>
<td>Composition, 2000 ohms ±10%, 1/2 watt</td>
<td>CBZ-63360</td>
<td>RE 13A 3720</td>
<td>8</td>
</tr>
<tr>
<td>R112</td>
<td>Not Used</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>R125</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*R126</td>
<td>BFO Cathode Resistor</td>
<td>Composition, 10,000 ohms ±5%, 1/2 watt</td>
<td>CBZ-63360</td>
<td>RE 13A 3720</td>
<td>8</td>
</tr>
<tr>
<td>*R127</td>
<td>BFO Plate Resistor</td>
<td>Composition, 350,000 ohms ±5%, 1/2 watt</td>
<td>CBZ-63360</td>
<td>RE 13A 3720</td>
<td>8</td>
</tr>
<tr>
<td>*R128</td>
<td>AVC Diode Delay Resistor</td>
<td>Composition, 68,000 ohms ±5%, 1/2 watt</td>
<td>CBZ-63360</td>
<td>RE 13A 3720</td>
<td>8</td>
</tr>
</tbody>
</table>

* Symbol part designation, if any.
* Style or other applicable designation, if any.
* SPARE PARTS FURNISHED. Refer to Table III for quantities.
<table>
<thead>
<tr>
<th>SYMBOL DESIGNATION</th>
<th>FUNCTION</th>
<th>DESCRIPTION</th>
<th>NAVY TYPE DESIGN.</th>
<th>NAVY IMQ. OR SPEC. NUMBER</th>
<th>MFR. DESIGN.</th>
<th>CONTRACTOR'S DRAWING AND PART NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>*R129</td>
<td>BFO Grid Resistor</td>
<td>Composition, 220,000 ohms ±10%, ½ watt</td>
<td>CBZ-63560</td>
<td>RE 13A.3720</td>
<td>8 Type EB</td>
<td>F-7763599-P90</td>
</tr>
<tr>
<td>*R130</td>
<td>Converter Cathode Resistor</td>
<td>Composition, 390 ohms ±10%, ½ watt</td>
<td>CBZ-63560</td>
<td>RE 13A.3720</td>
<td>8 Type EB</td>
<td>F-7763599-P57</td>
</tr>
<tr>
<td>*R131</td>
<td>R-f Oscillator Plate Resistor</td>
<td>Composition, 62,000 ohms ±5%, ½ watt</td>
<td>CBZ-63555</td>
<td>RE 13A.3720</td>
<td>8 Type EB</td>
<td>F-7763599-P202</td>
</tr>
<tr>
<td>*R132</td>
<td>Converter Screen Resistor</td>
<td>Same as R107</td>
<td>CBZ-63560</td>
<td>RE 13A.3720</td>
<td>8 Type EB</td>
<td></td>
</tr>
<tr>
<td>*R133</td>
<td>R-f Oscillator Grid Resistor</td>
<td>Composition, 150,000 ohms ±10%, ½ watt</td>
<td>CBZ-63560</td>
<td>RE 13A.3720</td>
<td>8 Type EB</td>
<td></td>
</tr>
<tr>
<td>*R134</td>
<td>AVC Diode Delay Resistor</td>
<td>Same as R102</td>
<td>CBZ-63560</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R135, to R150</td>
<td>Not Used</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*R151</td>
<td>Converter Plate Filter Resistor</td>
<td>Same as R105</td>
<td>CBZ-63555</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*R152</td>
<td>Volume Control Gang Potentiometer</td>
<td>2 rheostats mounted in tandem, consists of R152A and R152B</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R152A</td>
<td>AVC Potentiometer</td>
<td>20,000 ohms ±10%, included in R152</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R152B</td>
<td>AVC Potentiometer</td>
<td>800,000 ohms ±10%, included in R152</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R153, R154</td>
<td>Not Used</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R155</td>
<td>AVC Filter Resistor</td>
<td>Same as R103</td>
<td>CBZ-63591</td>
<td>RE 13A.3720</td>
<td>8 Type GB</td>
<td>F-7763600-P203</td>
</tr>
<tr>
<td>*R156</td>
<td>Not Used</td>
<td></td>
<td>CBZ-63560</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R157, R158</td>
<td>Screen Supply Bleeder Resistor</td>
<td>Composition, 15,000 ohms ±10%, 1 watt</td>
<td>CBZ-63288</td>
<td>RE 13A.3720</td>
<td>8 Type GB</td>
<td>F-7763600-P76</td>
</tr>
<tr>
<td>R159, R160</td>
<td>1st I-f Cathode Resistor</td>
<td>Same as R109</td>
<td>CBZ-63560</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R161, R162</td>
<td>1st I-f Plate Filter Resistor</td>
<td>Same as R105</td>
<td>CBZ-63555</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R163, R164</td>
<td>2nd I-f Screen Resistor</td>
<td>Composition, 39,000 ohms ±10%, ½ watt</td>
<td>CBZ-63555</td>
<td>RE 13A.3720</td>
<td>8 Type EB</td>
<td>F-7763599-P94</td>
</tr>
<tr>
<td>R165</td>
<td>2nd I-f Grid Filter Resistor</td>
<td>Composition, 1.5 megohms ±10%, ½ watt</td>
<td>CBZ-63560</td>
<td>RE 13A.3720</td>
<td>8 Type EB</td>
<td>F-7763599-P91</td>
</tr>
<tr>
<td>*R166</td>
<td>2nd I-f Plate Filter Resistor</td>
<td>Same as R105</td>
<td>CBZ-63555</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*R167</td>
<td>Audio Diode Filter Resistor</td>
<td>Composition, 47,000 ohms ±10%, ½ watt</td>
<td>CBZ-63560</td>
<td>RE 13A.3720</td>
<td>8 Type EB</td>
<td>F-7763599-P82</td>
</tr>
</tbody>
</table>

Δ Symbol part designation, if any.
W Style or other applicable designation, if any.
* SPARE PARTS PUBLISHED. 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 CO-46115**

<table>
<thead>
<tr>
<th>SYMBOL DESIGNATION</th>
<th>FUNCTION</th>
<th>DESCRIPTION</th>
<th>NAVY TYPE DESIGN.</th>
<th>NAVY ENG. OR SPEC. NUMBER</th>
<th>MFR.</th>
<th>MFR. DESIGN.</th>
<th>CONTRACTOR’S DRAWING AND PART NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>*R165</td>
<td>Audio Diode Load Resistor</td>
<td>Composition, 330,000 ohms ±10%, 1/2 watt</td>
<td>CBZ-63360</td>
<td>RE 13A 3720</td>
<td>-</td>
<td>8 Type BB</td>
<td>P-7763599-P92</td>
</tr>
<tr>
<td>*R166</td>
<td>Screen Supply Bleeder Resistor</td>
<td>Composition, 30,000 ohms ±5%, 1 watt</td>
<td>CBZ-63291</td>
<td>RE 13A 3720</td>
<td>-</td>
<td>8 Type BB</td>
<td>P-7763600-P194</td>
</tr>
<tr>
<td>*R167</td>
<td>1st I-f Grid Filter Resistor</td>
<td>Same as R103</td>
<td>CBZ-63360</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*R168</td>
<td>Converter Cathode Resistor</td>
<td>Composition, 510 ohms ±5%, 1/2 watt</td>
<td>CBZ-63355</td>
<td>RE 13A 3720</td>
<td>-</td>
<td>8 Type BB</td>
<td>P-7763599-P152</td>
</tr>
<tr>
<td>*R169</td>
<td>2nd I-f Cathode Resistor</td>
<td>Composition, 330 ohms ±10%, 1/2 watt</td>
<td>CBZ-63360</td>
<td>RE 13A 3720</td>
<td>-</td>
<td>8 Type BB</td>
<td>P-7763599-P56</td>
</tr>
<tr>
<td>*R170</td>
<td>Audio Diode Filter Resistor</td>
<td>Same as R164</td>
<td>CBZ-63360</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>R171 to R176</td>
<td>Not Used</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*R177</td>
<td>Audio Cathode Resistor</td>
<td>Composition, 390 ohms ±5%, 1 watt</td>
<td>CBZ-63291</td>
<td>RE 13A 3720</td>
<td>-</td>
<td>8 Type GB</td>
<td>P-7763600-P149</td>
</tr>
<tr>
<td>*R178</td>
<td>Audio Cathode Filter Resistor</td>
<td>Same as R168</td>
<td>CBZ-63355</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SYMBOL DESIGNATION</th>
<th>FUNCTION</th>
<th>DESCRIPTION</th>
<th>NAVY TYPE DESIGN.</th>
<th>NAVY ENG. OR SPEC. NUMBER</th>
<th>MFR.</th>
<th>MFR. DESIGN.</th>
<th>CONTRACTOR’S DRAWING AND PART NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>S101</td>
<td>Antenna Band Switch</td>
<td>Rotary tap switch, 4-position, 3-bank</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>9 Type RMC</td>
<td>M-7464376-P3</td>
</tr>
<tr>
<td>S101 A</td>
<td>Antenna Band Switch</td>
<td>Included in S101</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>S101 B</td>
<td>Antenna Band Switch</td>
<td>Included in S101</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>S101 C</td>
<td>Antenna Band Switch</td>
<td>Included in S101</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>S102 A</td>
<td>AVC - MVC Switch</td>
<td>Rotary tap switch, 2-position, 3-bank</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>9 Type RMC</td>
<td>M-7464292-P2</td>
</tr>
<tr>
<td>S102 B</td>
<td>AVC - MVC Switch</td>
<td>Included in S102</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>S102 C</td>
<td>AVC - MVC Switch</td>
<td>Included in S102</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>S102 D</td>
<td>AVC - MVC Switch</td>
<td>Included in S102</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>S103 A</td>
<td>CW-Off-MCW Switch</td>
<td>Rotary tap switch, 3-position, 2-bank</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>9 Type RMC</td>
<td>M-7464292-P1</td>
</tr>
<tr>
<td>S103 B</td>
<td>CW-Off-MCW Switch</td>
<td>Included in S103</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>S103 C</td>
<td>CW-Off-MCW Switch</td>
<td>Included in S103</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>S103 D</td>
<td>CW-Off-MCW Switch</td>
<td>Included in S103</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>S104 A</td>
<td>CW-Off-MCW Switch</td>
<td>Included in S104</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>S104 B</td>
<td>CW-Off-MCW Switch</td>
<td>Included in S104</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>S104 C</td>
<td>CW-Off-MCW Switch</td>
<td>Included in S104</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>S104 D</td>
<td>CW-Off-MCW Switch</td>
<td>Included in S104</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>S105 A</td>
<td>R-f Band Switch</td>
<td>Rotary tap switch, 4-position, 4-bank</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>9 Type RMC</td>
<td>M-7464376-P3</td>
</tr>
<tr>
<td>S105 B</td>
<td>R-f Band Switch</td>
<td>Included in S105</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>S105 C</td>
<td>R-f Band Switch</td>
<td>Included in S105</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>S105 D</td>
<td>R-f Band Switch</td>
<td>Included in S105</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

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 03-46115**

<table>
<thead>
<tr>
<th>SYMBOL DESIGNATION</th>
<th>FUNCTION</th>
<th>DESCRIPTION</th>
<th>NAVY TYPE DESIG.</th>
<th>NAVY MFG. OR SPEC. NUMBER</th>
<th>MFR. DESIG.</th>
<th>CONTRACTOR'S DRAWING AND PART NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SWITCHES (CONT'D)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S105 C</td>
<td>R-f Band Switch</td>
<td>Included in S105</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>S105 D</td>
<td>R-f Band Switch</td>
<td>Included in S105</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>S106</td>
<td>R-f Oscillator Band Switch</td>
<td>Rotary tap switch, 4-position, 4-bank</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>S106 A</td>
<td>R-f Oscillator Band Switch</td>
<td>Included in S106</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>S106 B</td>
<td>R-f Oscillator Band Switch</td>
<td>Included in S106</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>S106 C</td>
<td>R-f Oscillator Band Switch</td>
<td>Included in S106</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>S106 D</td>
<td>R-f Oscillator Band Switch</td>
<td>Included in S106</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td><strong>TRANSFORMERS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| T101                | Band 1, Antenna Transformer | Primary, 1507 1/2 turns ES wire, Universal wound, 53.15 milli-henries (approx).
                    |          |              |                  |                           |             |                                      |
| T102                | Band 2, Antenna Transformer | Primary, 406 1/2 turns ES wire, Universal wound, 5.095 milli-henries (approx).
                    |          |              |                  |                           |             |                                      |
| T103                | Band 3, Antenna Transformer | Primary, 310 1/2 turns ES wire, Universal wound, 3.063 milli-henries (approx).
                    |          |              |                  |                           |             |                                      |

Δ Symbol part designation, if any.

* Style or other applicable designation, if any.

* SPARE PARTS FURNISHED. Refer to Table III for quantities.
<table>
<thead>
<tr>
<th>SYMBOL DESIGNATION</th>
<th>FUNCTION</th>
<th>DESCRIPTION</th>
<th>NAVY TYPE DESIG.</th>
<th>NAVY Dwg. OR SPEC. NUMBER</th>
<th>MFR. DESIGN.</th>
<th>MFR. PART NUMBER</th>
<th>CONTRACTOR'S DRAWING AND PART NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>T104</td>
<td>Band 4, Antenna Transformer</td>
<td>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</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>-</td>
<td>K-787753-P1</td>
</tr>
<tr>
<td>T105</td>
<td>Band 1, R-f Transformer</td>
<td>Primary, 1507 1/2 turns ES wire, Universal wound, 53.38 millihenries (approx) Secondary, 352 1/2 turns, 30/44 ES Litz wire, Prog. Universal wound, 131.8 microhenries (approx). Mutual inductance 1660 microhenries (approx)</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>-</td>
<td>K-787754-P1</td>
</tr>
<tr>
<td>T106</td>
<td>Band 2, R-f Transformer</td>
<td>Primary, 406 1/2 turns ES wire, Universal wound, 5.093 millihenries (approx) Secondary, 259 1/2 turns, 30/44 ES Litz wire, Prog. Universal wound, 775.1 microhenries (approx). Mutual inductance 534.9 microhenries (approx)</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>-</td>
<td>K-787755-P1</td>
</tr>
<tr>
<td>T107</td>
<td>Band 3, R-f Transformer</td>
<td>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, 599.3 microhenries. Mutual inductance 342.9 microhenries.</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>-</td>
<td>K-787756-P1</td>
</tr>
<tr>
<td>T108</td>
<td>Band 4, R-f Transformer</td>
<td>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)</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>-</td>
<td>K-787757-P1</td>
</tr>
</tbody>
</table>

* SPIRE PARTS FURNISHED. Refer to Table III for quantities.

△ Symbol part designation, if any.
* Style or other applicable designation, if any.
### TABLE VI (CONT'D)
**PARTS LIST BY SYMBOL DESIGNATIONS**
*NAVY MODEL RAX-1 AIRCRAFT RADIO RECEIVING EQUIPMENT*
*RADIO RECEIVER 200-1500 KC, NAVY TYPE CG-46115*

<table>
<thead>
<tr>
<th>SYMBOL DESIGNATION</th>
<th>FUNCTION</th>
<th>DESCRIPTION</th>
<th>NAVY TYPE</th>
<th>NAVY MFG. OR SPEC. NUMBER</th>
<th>MFR.</th>
<th>CONTRACTOR'S DRAWING AND PART NUMBER</th>
</tr>
</thead>
</table>
| T109                | 1st I-f Transformer | Primary, 420 turns (approx) E8 wire, Universal wound, 1.715 millihenries (approx)  
Secondary, 420 turns (approx) E8 wire, Universal wound, 1.715 millihenries (approx). Mutual inductance 42.0 microhenries | - | - | 4 | K-7763100-01 |
| 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 26.6 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), E8 wire, Universal wound, 5.7 millihenries  
Primary, 394 turns (approx) E8 wire, Universal wound, 1.969 millihenries  
Secondary, 232 turns E8 wire, 646.7 microhenries. Mutual inductance 21.0 microhenries (approx) | - | - | 4 | T-7661130-01 |
| T115                | Not Used | - | - | - | - |

* 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 RECEIVERS 200-1500 KC, NAVY TYPE CD-45113**

<table>
<thead>
<tr>
<th>SYMBOL DESIGNATION</th>
<th>FUNCTION</th>
<th>DESCRIPTION</th>
<th>NAVY TYPE DESIGN.</th>
<th>NAVY ENG. OR SPEC. NUMBER</th>
<th>MFR.</th>
<th>MFR. DESIGN.</th>
<th>CONTRACTOR'S DRAWING AND PART NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TRANSFORMERS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T116</td>
<td>3rd I-f Transformer</td>
<td>Primary, 278 turns (approx) BS wire, Universal wound, 1.06 millihenries. Secondary, 278 turns (approx) BS wire, Universal wound, 1.06 millihenries. Mutual inductance 20.0 microhenries (approx)</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>-</td>
<td>K-7763102-01</td>
</tr>
<tr>
<td>*T117</td>
<td>Output Transformer</td>
<td>Turns ratio 60:1 - 60 cycles to 3000 cycles. Primary D.C. - .013 amp</td>
<td>-</td>
<td>-</td>
<td>6</td>
<td>Cat. No. 670919</td>
<td>K-7877947</td>
</tr>
<tr>
<td><strong>VACUUM TUBES</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*V101</td>
<td>R-f Amplifier Tube</td>
<td>Triple - grid supercontrol amplifier</td>
<td>CRC-12SK7</td>
<td>RE 15A 600D</td>
<td>-</td>
<td>10</td>
<td>RCA Type 12SK7</td>
</tr>
<tr>
<td>*V102</td>
<td>Converter Tube</td>
<td>Triode-hexode converter</td>
<td>CRC-12SK8</td>
<td>RE 15A 600D</td>
<td>-</td>
<td>10</td>
<td>RCA Type 12ES</td>
</tr>
<tr>
<td>*V103</td>
<td>1st I-f Amplifier Tube</td>
<td>Same as V101</td>
<td>CRC-12SK7</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*V104</td>
<td>2nd I-f Amplifier Tube</td>
<td>Same as V101</td>
<td>CRC-12SK7</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*V105</td>
<td>Audio Amplifier Tube</td>
<td>Beam power amplifier, small wafer octal, 7-pin</td>
<td>CRC-12A6</td>
<td>RE 15A 600D</td>
<td>10</td>
<td>RCA Type 12A6</td>
<td>-</td>
</tr>
<tr>
<td>*V106</td>
<td>BFO 2nd Detector Tube</td>
<td>Duplex-diode triode, small wafer octal, 8-pin</td>
<td>CRC-12SN7</td>
<td>RE 15A 600D</td>
<td>10</td>
<td>RCA Type 12SN7</td>
<td>-</td>
</tr>
<tr>
<td>*V107</td>
<td>Input Voltage Limiter Tube</td>
<td>Neon lamp</td>
<td>-</td>
<td>-</td>
<td>6</td>
<td>Cat. No. CD-1010-CL</td>
<td>-</td>
</tr>
<tr>
<td><strong>VACUUM TUBE SOCKETS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X101</td>
<td>R-f Tube Socket</td>
<td>Ceramic, 8-pin</td>
<td>CPH-49373</td>
<td>-</td>
<td>-</td>
<td>11</td>
<td>Amphenol, Type SS-8 (modified)</td>
</tr>
<tr>
<td>X102</td>
<td>Converter Tube Socket</td>
<td>Same as X101</td>
<td>CPH-49373</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>X103</td>
<td>1st I-f Tube Socket</td>
<td>Same as X101</td>
<td>CPH-49373</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>X104</td>
<td>2nd I-f Tube Socket</td>
<td>Same as X101</td>
<td>CPH-49373</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>X105</td>
<td>Audio Tube Socket</td>
<td>Same as X101</td>
<td>CPH-49373</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>X106</td>
<td>BFO 2nd Detector Tube Socket</td>
<td>Same as X101</td>
<td>CPH-49373</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>WAVE TRAPS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Z101</td>
<td>Wave Trap</td>
<td>Consists of capacitors, C119, C194 and coil, L107 enclosed in aluminum can, 1 1/4-in. sq by 2 3/4 in.</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>-</td>
<td>P-7763184-01</td>
</tr>
<tr>
<td>Z102</td>
<td>Wave Trap</td>
<td>Consists of capacitor, C121 and coil, L106 enclosed in aluminum can, 1 1/4 in. sq by 2 3/4 in.</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>-</td>
<td>P-7763185-01</td>
</tr>
</tbody>
</table>

Δ Symbol part designation, if any.

* Style or other applicable designation, if any

**SPARE PARTS FURNISHED.** Refer to Table III for quantities.
<table>
<thead>
<tr>
<th>SYMBOL DESIGNATION</th>
<th>FUNCTION</th>
<th>DESCRIPTION</th>
<th>NAVY TYPE</th>
<th>NAVY MFG. OR SPEC. NUMBER</th>
<th>MFR. PART NUMBER</th>
<th>CONTRACTOR'S DRAWING AND PART NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>C201</td>
<td>Primary Ground Capacitor</td>
<td>Same as C108</td>
<td>CD-48895-Dl0</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>C202</td>
<td>Band 1, Antenna Trimming Capacitor</td>
<td>Same as C102</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>C203</td>
<td>Band 2, Antenna Trimming Capacitor</td>
<td>Same as C103</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>C204</td>
<td>Band 3, Antenna Trimming Capacitor</td>
<td>Same as C102</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C205</td>
<td>1st R-f Grid Blocking Capacitor</td>
<td>Same as C191</td>
<td>CD-48674-Dl0</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>C206</td>
<td>Band 4, Antenna Trimming Capacitor</td>
<td>Same as C103</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C207</td>
<td>Antenna Padding Capacitor</td>
<td>Same as C122</td>
<td>CD-48711-Dl0</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>C208</td>
<td>Variable Tuning Gang Capacitor</td>
<td>Variable, 209-9 mmf (approx)</td>
<td>-</td>
<td>-</td>
<td>3</td>
<td>Model 3004 TT-7650270-02</td>
</tr>
<tr>
<td>C208 A</td>
<td>Variable Tuning Gang Capacitor</td>
<td>4 sections</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>C208 B</td>
<td>Variable Tuning Gang Capacitor</td>
<td>Included in C208</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>C208 C</td>
<td>Variable Tuning Gang Capacitor</td>
<td>Included in C208</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>C208 D</td>
<td>Variable Tuning Gang Capacitor</td>
<td>Included in C208</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>C209</td>
<td>Antenna Trimming Capacitor</td>
<td>Variable, 31 mmfd</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>APC Type B P-7761345-P14</td>
</tr>
<tr>
<td>*C210</td>
<td>Converter Plate Filter Capacitor</td>
<td>Same as C111</td>
<td>CD-48847-B10</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C211</td>
<td>1st R-f Screen By-pass Capacitor</td>
<td>Same as C111</td>
<td>CD-48847-B10</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C212</td>
<td>1st R-f Plate Filter Capacitor</td>
<td>Same as C111</td>
<td>CD-48847-B10</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>C213</td>
<td>Band 1, 1st R-f Trimming Capacitor</td>
<td>Same as C102</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>C214</td>
<td>Band 2, 1st R-f Trimming Capacitor</td>
<td>Same as C103</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>C215</td>
<td>Band 3, 1st R-f Trimming Capacitor</td>
<td>Same as C102</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>C216</td>
<td>Band 4, 1st R-f Trimming Capacitor</td>
<td>Same as C103</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C217</td>
<td>1st R-f Padding Capacitor</td>
<td>Same as C108</td>
<td>CD-48895-Dl0</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C218</td>
<td>Audio Cathode Filter Capacitor</td>
<td>Mica, 9500 mmfd ±2.5%, 300 volts d-c working</td>
<td>RE 13A 395X</td>
<td>-</td>
<td>1</td>
<td>Cat. No. 1WLS M-7464874-P1</td>
</tr>
</tbody>
</table>

A 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

<table>
<thead>
<tr>
<th>SYMBOL DESIGNATION</th>
<th>FUNCTION</th>
<th>DESCRIPTION</th>
<th>NAVY TYPE DESIG.</th>
<th>NAVY DMG. OR SPEC. NUMBER</th>
<th>F</th>
<th>MFR. DESIG.</th>
<th>CONTRACTOR'S DRAWING AND PART NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>*C219</td>
<td>2nd R-f Grid Blocking Capacitor</td>
<td>Same as C191</td>
<td>CD-48674-D10</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C220</td>
<td>2nd R-f Cathode By-pass Capacitor</td>
<td>Mica, 0.01 mfd ±10%, 300 volts d-c working</td>
<td>CD-48848-B10</td>
<td>RE 48AA 143D</td>
<td>1</td>
<td>Cat. No. 14LS</td>
<td>P-7762455-P31</td>
</tr>
<tr>
<td>*C221</td>
<td>AVC Filter Capacitor</td>
<td>Same as C220</td>
<td>CD-48848-B10</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C222</td>
<td>Audio Cathode By-pass Capacitor</td>
<td>Same as C177</td>
<td>CD-48848-B10</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>C223</td>
<td>Band 1, 2nd R-f Trimming Capacitor</td>
<td>Same as C102</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>C224</td>
<td>Band 2, 2nd R-f Trimming Capacitor</td>
<td>Same as C103</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>C225</td>
<td>Band 3, 2nd R-f Trimming Capacitor</td>
<td>Same as C102</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>C226</td>
<td>Band 4, 2nd R-f Trimming Capacitor</td>
<td>Same as C103</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C227</td>
<td>2nd R-f Padding Capacitor</td>
<td>Same as C108</td>
<td>CD-48895-D10</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C228</td>
<td>Power Input Filter</td>
<td>Same as C220</td>
<td>CD-48848-B10</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C229</td>
<td>Converter Grid Blocking Capacitor</td>
<td>Same as C191</td>
<td>CD-48674-D10</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C230</td>
<td>2nd R-f Plate Filter Capacitor</td>
<td>Same as C111</td>
<td>CD-48847-B10</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C231</td>
<td>Converter Cathode By-pass Capacitor</td>
<td>Same as C220</td>
<td>CD-48848-B10</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C232</td>
<td>Converter Screen By-pass Capacitor</td>
<td>Same as C111</td>
<td>CD-48847-B10</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C233</td>
<td>R-f Oscillator Grid Capacitor</td>
<td>Same as C140</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C234</td>
<td>Oscillator Plate Blocking Capacitor</td>
<td>Same as C172</td>
<td>CD-48691-D10</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C235</td>
<td>Converter Plate Tuning Capacitor</td>
<td>Mica, 500 mfd ±5%, 250 volts d-c working</td>
<td>-</td>
<td>RE 13A 389K</td>
<td>4</td>
<td>Type &quot;moulded silver cap&quot;</td>
<td>E-7887485-P38</td>
</tr>
<tr>
<td>*C236</td>
<td>1st I-f Grid Tuning Capacitor</td>
<td>Same as C235</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C237</td>
<td>1st I-f Plate Filter Capacitor</td>
<td>Same as C111</td>
<td>CD-48847-B10</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C238</td>
<td>R-f Oscillator Compensating Capacitor</td>
<td>Ceramic, 25 mfd ±5%, 500 volts d-c working temperature coefficient 0.000660 mfd/deg C</td>
<td>-</td>
<td>-</td>
<td>5</td>
<td>Type 680K (modified)</td>
<td>E-7877141-P3</td>
</tr>
</tbody>
</table>

Δ Symbol part designation, if any.
F 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**

<table>
<thead>
<tr>
<th>SYMBOL DESIGNATION</th>
<th>FUNCTION</th>
<th>DESCRIPTION</th>
<th>NAVY TYPE DESIGN.</th>
<th>NAVY DWG. OR SPEC. NUMBER</th>
<th>MFR. DESIGN.</th>
<th>CONTRACTOR'S DRAWING AND PART NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>C239</td>
<td>Band 1, Oscillator Trimming Capacitor</td>
<td>Same as C103</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*C240</td>
<td>BFO Plate Filter Capacitor</td>
<td>Same as C111</td>
<td></td>
<td></td>
<td>CD-48847-B10</td>
<td></td>
</tr>
<tr>
<td>C241</td>
<td>Band 2, Oscillator Trimming Capacitor</td>
<td>Same as C102</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*C242</td>
<td>Filament By-pass Capacitor</td>
<td>Same as C220</td>
<td></td>
<td></td>
<td>CD-48848-B10</td>
<td></td>
</tr>
<tr>
<td>C243</td>
<td>Band 3, Oscillator Trimming Capacitor</td>
<td>Same as C103</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*C244</td>
<td>Audio Cathode Filter Capacitor</td>
<td>Same as C218</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C245</td>
<td>Band 4, Oscillator Trimming Capacitor</td>
<td>Same as C102</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*C246</td>
<td>R-f Oscillator Padding Capacitor</td>
<td>Mica, 40 mfd ±5%, 250 volts</td>
<td>RE 13A 39K</td>
<td>4 Type &quot;moulded silver cap&quot;</td>
<td>K-7877485-P21</td>
<td></td>
</tr>
<tr>
<td>*C247</td>
<td>Power Supply Filter Capacitor</td>
<td>Same as C106</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*C248</td>
<td>BFO Plate Blocking Capacitor</td>
<td>Same as C172</td>
<td></td>
<td></td>
<td>CD-48591-B10</td>
<td></td>
</tr>
<tr>
<td>*C249</td>
<td>BFO Grid Blocking Capacitor</td>
<td>Same as C140</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C250 A</td>
<td>Dual Trimming Capacitor</td>
<td>Variable, double unit, 40 mfd</td>
<td></td>
<td>2 Type APC</td>
<td>P-7762985-P1</td>
<td></td>
</tr>
<tr>
<td>C250 B</td>
<td>2nd I-f Plate Tuning Capacitor</td>
<td>Included in C250</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*C251</td>
<td>BFO Tuning Capacitor</td>
<td>Included in C250</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*C252</td>
<td>BFO Compensating Capacitor</td>
<td>Same as C132</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*C253</td>
<td>Lat-l-f Screen By-pass Capacitor</td>
<td>Same as C111</td>
<td></td>
<td></td>
<td>CD-48847-B10</td>
<td></td>
</tr>
<tr>
<td>*C254</td>
<td>2nd R-f Band 3, Primary Loading Capacitor</td>
<td>Mica, 0.00002 mfd ±10%, 500 volts</td>
<td>CD-48783-B10</td>
<td>RE 13A 39K</td>
<td>1 Cat. No. 583</td>
<td>M-7463969-F4</td>
</tr>
<tr>
<td>*C255</td>
<td>BFO Cathode By-pass Capacitor</td>
<td>Same as C220</td>
<td></td>
<td></td>
<td>CD-48848-B10</td>
<td></td>
</tr>
<tr>
<td>*C256</td>
<td>Dual Electrolytic Capacitor</td>
<td>Electrolytic, 2 sections, 12-12 mfd</td>
<td></td>
<td>RE 13A 549A</td>
<td>1</td>
<td>K-78772842-P1</td>
</tr>
<tr>
<td>*C257</td>
<td>2nd I-f Plate Tuning Capacitor</td>
<td>Same as C134</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*C258</td>
<td>3rd I-f Grid Tuning Capacitor</td>
<td>Same as C134</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*C259</td>
<td>AVC Filter Capacitor</td>
<td>Same as C107</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**CAPACITORS (CONT'D)**

- 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**

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

△ 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-46166**

<table>
<thead>
<tr>
<th>SYMBOL DESIGNATION</th>
<th>FUNCTION</th>
<th>DESCRIPTION</th>
<th>NAVY TYPE DESIGN.</th>
<th>NAVY DML. OR SPEC. NUMBER</th>
<th>MFR.</th>
<th>MFR. DESIGN.</th>
<th>CONTRACTOR'S DRAWING AND PART NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>C277</strong></td>
<td>AVC Diode Blocking Capacitor</td>
<td>Same as C191</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td><strong>C278</strong></td>
<td>3rd I-f Plate Tuning Capacitor</td>
<td>Mica, 525 mfd ±5%, 250 volts d-c working</td>
<td>-</td>
<td>RE 13A 389K</td>
<td>4</td>
<td>-</td>
<td>K-7877485-F19</td>
</tr>
<tr>
<td><strong>C279</strong></td>
<td>Audio Diode Tuning Capacitor</td>
<td>Mica, 215 mfd ±5%, 250 volts d-c working</td>
<td>-</td>
<td>RE 13A 389K</td>
<td>1</td>
<td>Type &quot;moulded silver cap&quot;</td>
<td>K-7877485-F25</td>
</tr>
<tr>
<td><strong>C280</strong></td>
<td>Audio Diode Filter Capacitor</td>
<td>Mica, 0.0005 mfd ±10%, 500 volts d-c working</td>
<td>CD-481014-D10</td>
<td>RE 13A 389K</td>
<td>1</td>
<td>Cat. No. 588</td>
<td>K-7877485-F14</td>
</tr>
<tr>
<td><strong>C281</strong></td>
<td>3rd I-f Plate Filter Capacitor</td>
<td>Same as C111</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td><strong>C282</strong></td>
<td>Audio Plate Filter Capacitor</td>
<td>Mica, 0.0025 mfd ±10%, 500 volts d-c working</td>
<td>CD-481089-B10</td>
<td>RE 13A 389K</td>
<td>1</td>
<td>Cat. No. 1WLS</td>
<td>P-7762455-F23</td>
</tr>
<tr>
<td><strong>C283</strong></td>
<td>Antenna Coupling Capacitor</td>
<td>Same as C110</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td><strong>C284</strong></td>
<td>1st R-f Cathode By-pass Capacitor</td>
<td>Same as C220</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td><strong>C285</strong></td>
<td>2nd R-f Coupling Capacitor</td>
<td>Same as C110</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td><strong>C286</strong></td>
<td>Band 2, Antenna Primary Loading Capacitor</td>
<td>Same as C108</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td><strong>C287</strong></td>
<td>2nd R-f Primary Loading Capacitor</td>
<td>Same as C191</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td><strong>C288</strong></td>
<td>Band 1, Oscillator Series Padding Capacitor</td>
<td>Mica, 612 mfd ±0.75%, 250 volts d-c working</td>
<td>-</td>
<td>RE 13A 389K</td>
<td>4</td>
<td>Type &quot;moulded silver cap&quot;</td>
<td>K-7877485-F12</td>
</tr>
<tr>
<td><strong>C289</strong></td>
<td>Band 2, Oscillator Series Padding Capacitor</td>
<td>Same as C142</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td><strong>C290</strong></td>
<td>Band 3, Oscillator Padding Capacitor</td>
<td>Mica, 1179 mfd ±1.5%, 250 volts d-c working</td>
<td>-</td>
<td>RE 13A 389K</td>
<td>4</td>
<td>Type &quot;moulded silver cap&quot;</td>
<td>K-7877485-F7</td>
</tr>
<tr>
<td><strong>C291</strong></td>
<td>Band 4, Antenna Series Padding Capacitor</td>
<td>Mica, 2590 mfd ±5%, 250 volts d-c working</td>
<td>-</td>
<td>RE 13A 389K</td>
<td>4</td>
<td>Type &quot;moulded silver cap&quot;</td>
<td>K-7877485-F6</td>
</tr>
<tr>
<td><strong>C292</strong></td>
<td>1st I-f Grid Filter Capacitor</td>
<td>Same as C111</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td><strong>C293</strong></td>
<td>2nd I-f Cathode By-pass Capacitor</td>
<td>Same as C220</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td><strong>C294</strong></td>
<td>Not Used</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td><strong>C295</strong></td>
<td>1st R-f Primary Loading Capacitor</td>
<td>Same as C191</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td><strong>C296</strong></td>
<td>I-f Trap Tuning Capacitor</td>
<td>Same as C110</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td><strong>C297</strong></td>
<td>Band 4, 1st R-f Padding Capacitor</td>
<td>Same as C292</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

△ 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 CU-46116**

<table>
<thead>
<tr>
<th>SYMBOL DESIGNATION</th>
<th>FUNCTION</th>
<th>DESCRIPTION</th>
<th>NAVY TYPE DESIG.</th>
<th>NAVY INV. OR SPEC. NUMBER</th>
<th>MPR. DESIG.</th>
<th>CONTRACTOR'S DRAWING AND PART NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>*C298</td>
<td>Band 4, 2nd R-f Pedding Capacitor</td>
<td>Same as C291</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C299</td>
<td>Band 2, 2nd R-f Primary Loading Capacitor</td>
<td>Same as C254</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C1201</td>
<td>Band 3, Antenna Primary Loading Capacitor</td>
<td>Same as C108</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C1202</td>
<td>Band 4, Antenna Primary Loading Capacitor</td>
<td>Same as C122</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C1203</td>
<td>Power Input Filter Capacitor</td>
<td>Same as C220</td>
<td>CD-48897-D10</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C1204</td>
<td>Audio Diode Filter Capacitor</td>
<td>Same as C191</td>
<td>CD-48647-D10</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C1205</td>
<td>BFO Plate By-pass Capacitor</td>
<td>Same as C111</td>
<td>CD-48847-B10</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C1206</td>
<td>1st I-f Amplifier Screen By-pass Capacitor</td>
<td>Same as C111</td>
<td>CD-48847-B10</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

#### CAPACITORS (CONT'D)

#### DYNAMOTORS

| D201              | Dynamotor | Same as D201 | - | - | - | - |

#### 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

<table>
<thead>
<tr>
<th>L201</th>
<th>Not Used</th>
<th>-</th>
<th>-</th>
<th>-</th>
<th>-</th>
<th>-</th>
</tr>
</thead>
<tbody>
<tr>
<td>to L204 incl.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*L205</td>
<td>Power Supply R-f Choke Coil</td>
<td>Same as L103</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

---

* 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**

<table>
<thead>
<tr>
<th>SYMBOL DESIGNATION</th>
<th>FUNCTION</th>
<th>DESCRIPTION</th>
<th>NAVY TYPE DESIGN.</th>
<th>NAVY MFG. OR SPEC. NUMBER</th>
<th>MFR. DESIGN.</th>
<th>CONTRACTOR'S DRAWING AND PART NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>*L206</td>
<td>Power Supply Reactor</td>
<td>Same as L104</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*L207</td>
<td>Power Input R-f Choke Coil</td>
<td>Same as L105</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*L208</td>
<td>Power Input R-f Choke Coil</td>
<td>Same as L108</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L209</td>
<td>1-f Wave Trap Reactor</td>
<td>Consists of 2 sections, each 181 turns, copper wire, Universal wound on 3/8-in. comp. coil form, 2.1 micromhos ±2%</td>
<td></td>
<td></td>
<td></td>
<td>M-7464921-01</td>
</tr>
<tr>
<td>*L210</td>
<td>Audio Cathode Filter Reactor</td>
<td>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</td>
<td></td>
<td></td>
<td></td>
<td>P-7763160-01</td>
</tr>
<tr>
<td>*L211</td>
<td>1st I-f Filament Choke Coil</td>
<td>Same as L109</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### CHOKE COILS AND REACTORS (CONT'D)

<table>
<thead>
<tr>
<th>SYMBOL DESIGNATION</th>
<th>FUNCTION</th>
<th>DESCRIPTION</th>
<th>NAVY TYPE DESIGN.</th>
<th>NAVY MFG. OR SPEC. NUMBER</th>
<th>MFR. DESIGN.</th>
<th>CONTRACTOR'S DRAWING AND PART NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>R201</td>
<td>Not Used</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*R202</td>
<td>1st R-f Grid Resistor</td>
<td>Same as R103</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*R203</td>
<td>Converter Plate Filter Resistor</td>
<td>Composition, 820 ohms ±10%, 1/2 watt</td>
<td></td>
<td></td>
<td></td>
<td>P-7763599-061</td>
</tr>
<tr>
<td>*R204</td>
<td>2nd R-f Gain Equalizing Resistor</td>
<td>Composition, 620 ohms ±5%, 1/2 watt</td>
<td></td>
<td></td>
<td></td>
<td>P-7763599-054</td>
</tr>
<tr>
<td>*R205</td>
<td>1st R-f Plate Filter Resistor</td>
<td>Composition, 2200 ohms ±10%, 1/2 watt</td>
<td></td>
<td></td>
<td></td>
<td>P-7763599-066</td>
</tr>
<tr>
<td>*R206</td>
<td>2nd R-f Grid Resistor</td>
<td>Same as R103</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*R207</td>
<td>2nd R-f Cathode Resistor</td>
<td>Composition, 300 ohms ±5%, 1/2 watt</td>
<td></td>
<td></td>
<td></td>
<td>P-7763599-036</td>
</tr>
<tr>
<td>*R208</td>
<td>2nd R-f Gain Equalizing Resistor</td>
<td>Composition, 3000 ohms ±5%, 1/2 watt</td>
<td></td>
<td></td>
<td></td>
<td>P-7763599-070</td>
</tr>
<tr>
<td>*R209</td>
<td>R-f Screen Resistor</td>
<td>Composition, 1200 ohms ±5%, 1/2 watt</td>
<td></td>
<td></td>
<td></td>
<td>P-7763599-051</td>
</tr>
<tr>
<td>*R210</td>
<td>Audio Cathode Resistor</td>
<td>Same as R57</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*R211</td>
<td>2nd I-f Plate Filter Resistor</td>
<td>Same as R205</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*R212</td>
<td>Converter Grid Resistor</td>
<td>Same as R103</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*R213</td>
<td>Converter Cathode Resistor</td>
<td>Composition, 350 ohms ±5%, 1 watt</td>
<td></td>
<td></td>
<td></td>
<td>P-7763599-047</td>
</tr>
<tr>
<td>*R214</td>
<td>R-f Oscillator Plate Resistor</td>
<td>Composition, 30,000 ohms ±5%, 1/2 watt</td>
<td></td>
<td></td>
<td></td>
<td>P-7763599-017</td>
</tr>
<tr>
<td>*R215</td>
<td>Converter Screen Resistor</td>
<td>Composition, 12,000 ohms ±5%, 1/2 watt</td>
<td></td>
<td></td>
<td></td>
<td>P-7763599-015</td>
</tr>
</tbody>
</table>

See Table II for quantities.
<table>
<thead>
<tr>
<th>SYMBOL DESIGNATION</th>
<th>FUNCTION</th>
<th>DESCRIPTION</th>
<th>NAVY TYPE</th>
<th>NAVY ENG. OR SPEC. NUMBER</th>
<th>MFR.</th>
<th>MFR. DRAWING</th>
<th>CONTRACTOR'S</th>
<th>PART NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>R216</td>
<td>R-F Oscillator Grid Resistor</td>
<td>Composition, 51,000 ohms ±5%</td>
<td>CBE-63355</td>
<td>RE 13A 3720</td>
<td>8</td>
<td>Type BE</td>
<td>P-7763599-P200</td>
<td></td>
</tr>
<tr>
<td>R217</td>
<td>1st I-F Grid Filter Resistor</td>
<td>1/2 watt</td>
<td>CBE-63355</td>
<td>RE 13A 3720</td>
<td>8</td>
<td>Type BE</td>
<td>P-7763599-P199</td>
<td></td>
</tr>
<tr>
<td>R218</td>
<td>BPO Cathode Resistor</td>
<td>1/2 watt</td>
<td>CBE-63355</td>
<td>RE 13A 3720</td>
<td>8</td>
<td>Type BE</td>
<td>P-7763599-P187</td>
<td></td>
</tr>
<tr>
<td>R219</td>
<td>MW Voltage Equalizing Resistor</td>
<td>1/2 watt</td>
<td>CBE-63355</td>
<td>RE 13A 3720</td>
<td>8</td>
<td>Type BE</td>
<td>P-7763599-P205</td>
<td></td>
</tr>
<tr>
<td>R220</td>
<td>1st I-F Cathode Resistor</td>
<td>Same as R209</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>R221</td>
<td>AVC Filter Resistor</td>
<td>Same as R104</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>R222</td>
<td>BPO Plate Resistor</td>
<td>Same as R214</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>R223</td>
<td>BPO Grid Resistor</td>
<td>Composition, 200,000 ohms ±5%</td>
<td>CBE-63355</td>
<td>RE 13A 3720</td>
<td>8</td>
<td>Type BE</td>
<td>P-7763599-P214</td>
<td></td>
</tr>
<tr>
<td>R224</td>
<td>2nd I-F Cathode Resistor</td>
<td>Same as R207</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>R225</td>
<td>AVC Filter Resistor</td>
<td>Same as R103</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>R226</td>
<td>Screen Supply Bleeder Resistor</td>
<td>Composition, 11,000 ohms ±5%</td>
<td>CBE-63360</td>
<td>RE 13A 3720</td>
<td>8</td>
<td>Type JB</td>
<td>P-7763600-P184</td>
<td></td>
</tr>
<tr>
<td>R227</td>
<td>BPO Plate Filter Resistor</td>
<td>Same as R205</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>R228</td>
<td>Volume Control Gng Potentiometer</td>
<td>Consists of R228A and R228B</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>R228a</td>
<td>MVC Section of Potentiometer</td>
<td>Total resistance 6250 ohms ±10%</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>R228b</td>
<td>AVC Section of Potentiometer</td>
<td>Total resistance 800,000 ohms ±10%</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>R229</td>
<td>2nd I-F Plate Filter Resistor</td>
<td>Same as R205</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>R230</td>
<td>Converter Plate Damping Resistor</td>
<td>Composition, 82,000 ohms ±5%</td>
<td>CBE-63355</td>
<td>RE 13A 3720</td>
<td>8</td>
<td>Type BE</td>
<td>P-7763599-P205</td>
<td></td>
</tr>
<tr>
<td>R231</td>
<td>1st I-F Grid Damping Resistor</td>
<td>Same as R230</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>R232</td>
<td>3rd I-F Cathode Resistor</td>
<td>Same as R168</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>R233</td>
<td>AVC Diode Load Resistor</td>
<td>Composition, 470,000 ohms ±5%</td>
<td>CBE-63355</td>
<td>RE 13A 3720</td>
<td>8</td>
<td>Type BE</td>
<td>P-7763599-P233</td>
<td></td>
</tr>
<tr>
<td>R234</td>
<td>BPO Voltage Equalizing Resistor</td>
<td>Composition, 24,000 ohms ±5%</td>
<td>CBE-63355</td>
<td>RE 13A 3720</td>
<td>8</td>
<td>Type BE</td>
<td>P-7763599-P192</td>
<td></td>
</tr>
<tr>
<td>R235</td>
<td>3rd I-F Plate Filter Resistor</td>
<td>Same as R203</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>R236</td>
<td>DIODE Filter Resistor</td>
<td>Same as R214</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

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 RAI-1 AIRCRAFT RADIO RECEIVING EQUIPMENT**

**RADIO RECEIVER 1500-9000 KD, NAVY TYPE 00-66116**

<table>
<thead>
<tr>
<th>SYMBOL DESIGNATION</th>
<th>FUNCTION</th>
<th>DESCRIPTION</th>
<th>NAVY TYPE DESIGN.</th>
<th>NAVY IMP. OR SPEC. NUMBER</th>
<th>V</th>
<th>PWR. DESIGN.</th>
<th>CONTRACTOR'S DRAWING AND PART NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>*R237</td>
<td>Diode Load Resistor</td>
<td>Composition, 300,000 ohms ±5%, 1/2 watt</td>
<td>CBZ-63355</td>
<td>RE 13A 3720</td>
<td>8</td>
<td>Type ED</td>
<td>P-7763599-PF18</td>
</tr>
<tr>
<td>*R238</td>
<td>Diode Filter Resistor</td>
<td>Same as R107</td>
<td>CBZ-63360</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*R239</td>
<td>1st R-f Cathode Resistor</td>
<td>Same as R207</td>
<td>CBZ-63355</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*R240</td>
<td>2nd I-f Grid Damping Resistor</td>
<td>Same as R230</td>
<td>CBZ-63355</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*R241</td>
<td>1rd I-f Screen Resistor</td>
<td>Same as R215</td>
<td>CBZ-63355</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*R242</td>
<td>2nd I-f Grid Damping Resistor</td>
<td>Same as R216</td>
<td>CBZ-63355</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*R243</td>
<td>Band 1, 2nd R-f Gain Equalizing Resistor</td>
<td>Composition, 2000 ohms ±5%, 1/2 watt</td>
<td>CBZ-63355</td>
<td>RE 13A 3720</td>
<td>8</td>
<td>Type ED</td>
<td>P-7763599-PF166</td>
</tr>
<tr>
<td>*R244</td>
<td>MVC Bias Bleeder Resistor</td>
<td>Same as R250</td>
<td>CBZ-63355</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*R245</td>
<td>End I-f Grid Filter Resistor</td>
<td>Same as R217</td>
<td>CBZ-63355</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*R246</td>
<td>Screen Supply Bleeder Resistor</td>
<td>Composition, 33,000 ohms ±5%, 1 watt</td>
<td>CBZ-63361</td>
<td>RE 13A 3720</td>
<td>8</td>
<td>Type GB</td>
<td>P-7763600-PF195</td>
</tr>
<tr>
<td>*R247</td>
<td>RFO Cathode Resistor</td>
<td>Same as R234</td>
<td>CBZ-63355</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*R248</td>
<td>1st I-f Plate Filter Resistor</td>
<td>Same as R168</td>
<td>CBZ-63355</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*R249</td>
<td>2nd I-f Plate Damping Resistor</td>
<td>Same as R214</td>
<td>CBZ-63355</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*R250</td>
<td>1st I-f Screen Filter Resistor</td>
<td>Composition, 5600 ohms ±10%, 1/2 watt</td>
<td>CBZ-63360</td>
<td>RE 13A 3720</td>
<td>8</td>
<td>Type ED</td>
<td>P-7763599-P71</td>
</tr>
<tr>
<td>*R251</td>
<td>1st I-f Plate Damping Resistor</td>
<td>Same as R230</td>
<td>CBZ-63355</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*R252</td>
<td>Screen Supply Bleeder Resistor</td>
<td>Same as R226</td>
<td>CBZ-63361</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*R253</td>
<td>1st I-f Cathode Resistor</td>
<td>Same as R168</td>
<td>CBZ-63355</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

#### SWITCHES

- S201 - Antenna Band Switch
- S201 A Antenna Band Switch
- S201 B Antenna Band Switch
- S201 C Antenna Band Switch
- S201 D Antenna Band Switch
- S202 - 1st R-f Band Switch
- S202 A 1st R-f Band Switch
- S202 B 1st R-f Band Switch
- S202 C 1st R-f Band Switch

**NOTE:**

- 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 RAY-1 AIRCRAFT RADIO RECEIVING EQUIPMENT

**NAVY RECEIVER 1500-9000 KC, NAVY TYPE 02-46116**

<table>
<thead>
<tr>
<th>SYMBOL DESIGNATION</th>
<th>FUNCTION</th>
<th>DESCRIPTION</th>
<th>NAVY TYPE</th>
<th>NAVY MFG. OR SPEC. NUMBER</th>
<th>MFR.</th>
<th>MFR. DESIGN.</th>
<th>CONTRACTOR'S DRAWING AND PART NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SWITCHES (CONT'D)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S202 D</td>
<td>1st R-F Band Switch</td>
<td>Included in S202</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>S203 A</td>
<td>2nd R-F Band Switch</td>
<td>Same as S101</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>S203 B</td>
<td>2nd R-F Band Switch</td>
<td>Included in S203</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>S203 C</td>
<td>2nd R-F Band Switch</td>
<td>Included in S203</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>S203 D</td>
<td>2nd R-F Band Switch</td>
<td>Included in S203</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>S204 A</td>
<td>R-F Oscillator Band Switch</td>
<td>Same as S204</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>S204 B</td>
<td>R-F Oscillator Band Switch</td>
<td>Included in S204</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>S204 C</td>
<td>R-F Oscillator Band Switch</td>
<td>Included in S204</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>S204 D</td>
<td>R-F Oscillator Band Switch</td>
<td>Included in S204</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>S205 A</td>
<td>AVQ-MVC Switch</td>
<td>Included as S102</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>S205 B</td>
<td>AVQ-MVC Switch</td>
<td>Included as S105</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>S205 C</td>
<td>AVQ-MVC Switch</td>
<td>Included as S105</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>S205 D</td>
<td>AVQ-MVC Switch</td>
<td>Same as S103</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>S207 A</td>
<td>OW-MOV Switch</td>
<td>Included as S207</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>S207 B</td>
<td>OW-MOV Switch</td>
<td>Included as S207</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**TRANSFORMERS**

| T201 | Band 1, Antenna Transformer | Primary, 20 turns, 8S wire Universal wound, 11.9 microhenries (approx) Secondary, 70 1/2 turns E wire, 37.9 microhenries (approx) Mutual inductance 4.6 microhenries (approx) | - | - | - | - | - |
| 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) | - | - | - | - | - |
| 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 (approx) | - | - | - | - | - |

* Symbol part designation, if any.

* Style or other applicable designation, if any.

* SPARE PARTS FURNISHED. Refer to Table III for quantities.
<table>
<thead>
<tr>
<th>SYMBOL DESIGNATION</th>
<th>FUNCTION</th>
<th>DESCRIPTION</th>
<th>NAVY TYPE DESIG.</th>
<th>NAVY DM. OR SPEC. NUMBER</th>
<th>MFR. DESIG.</th>
<th>CONTRACTOR'S DRAWING AND PART NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>T204</td>
<td>Band 4, Antenna Transformer</td>
<td>Primary, 29 1/2 turns E3 wire, Universal wound, 24.6 microhenries (approx) Secondary, 3.0 microhenries (approx) Mutual inductance 2.1 microhenries (approx)</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>-</td>
</tr>
<tr>
<td>T205</td>
<td>1st R-f Band 1 Transformer</td>
<td>Primary, 136 1/2 turns E3 wire, Universal wound, 479.3 microhenries (approx) Secondary, 72 1/2 turns E wire, 40.5 microhenries (approx) Mutual inductance 27.5 microhenries (approx)</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>-</td>
</tr>
<tr>
<td>T206</td>
<td>1st R-f Band 3 Transformer</td>
<td>Primary, 68 1/2 turns E3 wire, Universal wound, 59.5 microhenries (approx) Secondary, 49 1/2 turns E wire, 15.6 microhenries (approx) Mutual inductance 6.8 microhenries (approx)</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>-</td>
</tr>
<tr>
<td>T207</td>
<td>1st R-f Band 3 Transformer</td>
<td>Primary, 49 1/2 turns E3 wire, Universal wound, 50.8 microhenries (approx) Secondary, 29 1/2 turns E wire, 6.0 microhenries (approx) Mutual inductance 3.6 microhenries (approx)</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>-</td>
</tr>
<tr>
<td>T208</td>
<td>1st R-f Band 4 Transformer</td>
<td>Primary, 35 1/2 turns E3 wire, Universal wound, 32.8 microhenries (approx) Secondary, 16 1/2 turns E wire, 2.9 microhenries (approx) Mutual inductance 2.4 microhenries (approx)</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>-</td>
</tr>
<tr>
<td>T209</td>
<td>1st I-f Transformer</td>
<td>Primary, 66 turns E3 wire Secondary, 66 turns E3 wire, 35.0 microhenries (approx)</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>-</td>
</tr>
</tbody>
</table>

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 CO-46116

<table>
<thead>
<tr>
<th>SYMBOL DESIGNATION</th>
<th>FUNCTION</th>
<th>DESCRIPTION</th>
<th>NAVY TYPE DESIG.</th>
<th>NAVY DMG. OR SPEC. NUMBER</th>
<th>MFR. DESIG.</th>
<th>CONTRACTOR'S DRAWING AND PART NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>T210</td>
<td>Band 1, R-f Oscillator Transformer</td>
<td>Primary, 26 1/2 turns ES wire, 14.6 microhenries (approx) Secondary, 42 1/2 turns ES wire, 21.3 microhenries (approx) Mutual inductance 4.55 microhenries (approx)</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>K-7877374-P1</td>
</tr>
<tr>
<td>T211</td>
<td>Band 2, R-f Oscillator Transformer</td>
<td>Primary, 29 1/2 turns ES wire, 12.3 microhenries (approx) Secondary, 33 1/2 turns ES wire, 10.6 microhenries (approx) Mutual inductance 2.8 microhenries (approx)</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>K-7877375-P1</td>
</tr>
<tr>
<td>T212</td>
<td>Band 3, R-f Oscillator Transformer</td>
<td>Primary, 20 1/2 turns ES wire, 6.9 microhenries (approx) Secondary, 22 1/2 turns ES wire, 4.6 microhenries (approx)</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>K-7877376-P1</td>
</tr>
<tr>
<td>T213</td>
<td>Band 4, R-f Oscillator Transformer</td>
<td>Primary, 16 1/2 turns ES wire, close wound ES wire, 5.0 microhenries (approx) Secondary, 17 1/2 turns ES wire, 3.3 microhenries (approx) Mutual inductance 1.2 microhenries (approx)</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>K-7877377-P1</td>
</tr>
<tr>
<td>T214</td>
<td>BFO - 3rd I-f Transformer</td>
<td>Primary, 84 turns ES wire, 40 microhenries 40.5% Secondary, 66 turns ES wire, 52 microhenries 41% BFO, 139 turns ES wire, 268 microhenries 40.5%, 68 turns ES wire, 69 microhenries 40.5%</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>P-7763105-01</td>
</tr>
<tr>
<td>T215</td>
<td>2nd I-f Transformer</td>
<td>Primary, 66 turns ES wire, 35.0 microhenries 41% Secondary, 66 turns ES wire, 35.0 microhenries 41%</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>P-7763104-01</td>
</tr>
<tr>
<td>T216</td>
<td>4th I-f Transformer</td>
<td>Primary, 74 turns ES wire, 46.5 microhenries 41% Secondary, 111 turns ES wire, 104 microhenries 41%</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>P-7763106-01</td>
</tr>
<tr>
<td>T217*</td>
<td>Output Transformers</td>
<td>Same as C117</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>T218</td>
<td>Not Used</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Symbol part designation, if any.
+ Style or other applicable designation, if any.
* SPARE PARTS FURNISHED. Refer to Table III for quantities.
<table>
<thead>
<tr>
<th>SYMBOL DESIGNATION</th>
<th>SYMBOL DESIGNATION</th>
<th>DESCRIPTION</th>
<th>NAVY TYPE DESIGNATION</th>
<th>NAVY NUM. OR SPEC. NUMBER</th>
<th>MFR.</th>
<th>MFR. DRAWING AND PART NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>T219</strong> - Band 1, 2nd R-f Transformer</td>
<td><strong>T220</strong> - Band 2, 2nd R-f Transformer</td>
<td>Primary, 170 1/2 turns E8 wire, Universal wound, 723.6 micro-henries (approx) Secondary, 73 1/2 turns E wire, 40.8 micro-henries (approx) Mutual inductance 34.2 micro-henries (approx)</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>E-7877370-P1</td>
</tr>
<tr>
<td><strong>T221</strong> - Band 3, 2nd R-f Transformer</td>
<td><strong>T222</strong> - Band 4, 2nd R-f Transformer</td>
<td>Primary, 68 1/2 turns E8 wire, Universal wound, 100 micro-henries (approx) Secondary, 49 1/2 turns E wire, 15.7 micro-henries (approx) Mutual inductance 7.5 micro-henries (approx)</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>E-7877371-P1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Primary, 49 1/2 turns E8 wire, Universal wound, 50.0 micro-henries (approx) Secondary, 30 1/2 turns E wire, 6.1 micro-henries (approx) Mutual inductance 3.7 micro-henries (approx)</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>E-7877372-P1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Primary, 35 1/2 turns E8 wire, Universal wound, 35.0 micro-henries (approx) Secondary, 16 3/4 turns E wire, 3.0 micro-henries (approx) Mutual inductance 2.4 micro-henries (approx)</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>E-7877373-P1</td>
</tr>
</tbody>
</table>

**VACUUM TUBES**

<table>
<thead>
<tr>
<th>SYMBOL DESIGNATION</th>
<th>DESCRIPTION</th>
<th>NAVY TYPE DESIGNATION</th>
<th>NAVY NUM. OR SPEC. NUMBER</th>
<th>MFR.</th>
<th>MFR. DRAWING AND PART NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>V201</strong> - 1st R-f Amplifier Tube</td>
<td>Same as V101</td>
<td>CRC-12MK7</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>V202</strong> - 2nd R-f Amplifier Tube</td>
<td>Same as V101</td>
<td>CRC-12MK7</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>V203</strong> - Converter Tube</td>
<td>Same as V102</td>
<td>CRC-12MK5</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>V204</strong> - 1st I-f Amplifier Tube</td>
<td>Same as V101</td>
<td>CRC-12MK7</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>V205</strong> - 2nd I-f Amplifier Tube</td>
<td>Same as V101</td>
<td>CRC-12MK7</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>V206</strong> - 3rd I-f Amplifier Tube</td>
<td>Same as V101</td>
<td>CRC-12MK7</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>V207</strong> - Audio Amplifier Tube</td>
<td>Same as V105</td>
<td>CRC-12A6</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>V208</strong> - BFO - 2nd Detector Tube</td>
<td>Same as V106</td>
<td>CRC-12BR7</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

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

**NAVY MODEL BAX-1 AIRCRAFT RADIO RECEIVING EQUIPMENT**
**NAVY RECEIVER 1500-9000 MC, NAVY TYPE 03-46116**

<table>
<thead>
<tr>
<th>SYMBOL DESIGNATION</th>
<th>FUNCTION</th>
<th>DESCRIPTION</th>
<th>NAVY TYPE DESIGN.</th>
<th>NAVY DMG. OR SPEC. NUMBER</th>
<th>MFR. DESIGN.</th>
<th>CONTRACTOR'S DRAWING AND PART NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Δ</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>V209</td>
<td>Input Voltage Limiter</td>
<td>Same as V107</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### VACUUM TUBES (CONT'D)

<table>
<thead>
<tr>
<th>SYMBOL DESIGNATION</th>
<th>FUNCTION</th>
<th>DESCRIPTION</th>
<th>NAVY TYPE DESIGN.</th>
<th>NAVY DMG. OR SPEC. NUMBER</th>
<th>MFR. DESIGN.</th>
<th>CONTRACTOR'S DRAWING AND PART NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>X201</td>
<td>1st R-f Tube Socket</td>
<td>Same as X101</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X202</td>
<td>2nd R-f Tube Socket</td>
<td>Same as X101</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X203</td>
<td>Converter Tube Socket</td>
<td>Same as X101</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X204</td>
<td>1st I-f Tube Socket</td>
<td>Same as X101</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X205</td>
<td>2nd I-f Tube Socket</td>
<td>Same as X101</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X206</td>
<td>3rd I-f Tube Socket</td>
<td>Same as X101</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X207</td>
<td>Audio Tube Socket</td>
<td>Same as X101</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X208</td>
<td>BFO - End Detector</td>
<td>Same as X101</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Δ Symbol part designation, if any.

* Style or other applicable designation, if any.

* SPARE PARTS FURNISHED. Refer to Table III for quantities.
<table>
<thead>
<tr>
<th>SYMBOL DESIGNATION</th>
<th>FUNCTION</th>
<th>DESCRIPTION</th>
<th>NAVY TYPE CODE</th>
<th>NAVY Dwg. OR Spec. NUMBER</th>
<th>MFR. DESIGN.</th>
<th>CONTRACTOR'S DRAWING AND PART NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>C301</td>
<td>Not Used</td>
<td>Same as C102</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C302</td>
<td>Band 1, Antenna Trimming Capacitor</td>
<td>Same as C102</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C303</td>
<td>Band 2, Antenna Trimming Capacitor</td>
<td>Same as C103</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C304</td>
<td>Band 3, Antenna Trimming Capacitor</td>
<td>Same as C102</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C305</td>
<td>Band 4, Antenna Trimming Capacitor</td>
<td>Same as C102</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C306</td>
<td>Band 5, Antenna Trimming Capacitor</td>
<td>Same as C103</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*C307</td>
<td>1st R-f Cathode By-pass Capacitor</td>
<td>Same as C111</td>
<td>CD-48847-B10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C308</td>
<td>Not Used</td>
<td>Variable, 102 mmf (approx)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C309</td>
<td>Tuning Capacitor</td>
<td>4 section</td>
<td></td>
<td></td>
<td>Model No. 3004</td>
<td>TT-7560270-01</td>
</tr>
<tr>
<td>C310</td>
<td>Antenna Trimming Capacitor</td>
<td>Variable, 16 mmf</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*C311</td>
<td>1st I-f Plate Filter Capacitor</td>
<td>Same as C111</td>
<td>CD-48847-B10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*C312</td>
<td>1st R-f Screen By-pass Capacitor</td>
<td>Same as C111</td>
<td>CD-48847-B10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*C313</td>
<td>1st R-f Plate Filter Capacitor</td>
<td>Same as C111</td>
<td>CD-48847-B10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C314</td>
<td>Band 1, 1st R-f Trimming Capacitor</td>
<td>Same as C102</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C315</td>
<td>Band 2, 1st R-f Trimming Capacitor</td>
<td>Same as C103</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C316</td>
<td>Band 3, 1st R-f Trimming Capacitor</td>
<td>Same as C102</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C317</td>
<td>Band 4, 1st R-f Trimming Capacitor</td>
<td>Same as C102</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C318</td>
<td>Band 5, 1st R-f Trimming Capacitor</td>
<td>Same as C103</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*C319</td>
<td>Fading Capacitor (1st R-f Tuning Capacitor)</td>
<td>Same as C135</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Δ Symbol part designation, if any.

† Style or other applicable designation, if any.

‡ SPARE PARTS FURNISHED. Refer to Table III for quantities.
<table>
<thead>
<tr>
<th>SYMBOL DESIGNATION</th>
<th>FUNCTION DESCRIPTION</th>
<th>NAVY TYPE DESIGNATION</th>
<th>NAVY MFG. OR SPEC. NUMBER</th>
<th>MFR. DESIGNATION</th>
<th>CONTRACTOR'S DRAWING AND PART NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>C220</td>
<td>Not Used</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C221</td>
<td>Filter Capacitor</td>
<td>Same as C256</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C221 A</td>
<td>Manual Volume Control</td>
<td>Included in C221</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C221 B</td>
<td>Power Input Filter</td>
<td>Included in C221</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C222</td>
<td>2nd R-f Cathode By-pass Capacitor</td>
<td>Same as C111</td>
<td>CD-48847-B10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C223</td>
<td>2nd R-f Screen By-pass Capacitor</td>
<td>Same as C111</td>
<td>CD-48847-B10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C224</td>
<td>Antenna Fading Capacitor</td>
<td>Same as C110</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C225</td>
<td>Band 1, 2nd R-f Trimming Capacitor</td>
<td>Same as C102</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C226</td>
<td>Band 2, 2nd R-f Trimming Capacitor</td>
<td>Same as C103</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C227</td>
<td>Band 3, 2nd R-f Trimming Capacitor</td>
<td>Same as C107</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C228</td>
<td>Band 4, 2nd R-f Trimming Capacitor</td>
<td>Same as C102</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C229</td>
<td>Band 5, 2nd R-f Trimming Capacitor</td>
<td>Same as C103</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C230</td>
<td>Converter Grid Blocking Capacitor</td>
<td>Same as C171</td>
<td>CD-481015-D10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C231</td>
<td>Padding Capacitor (2nd R-f Tuning Capacitor)</td>
<td>Same as C319</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C232</td>
<td>Not Used</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C233</td>
<td>2nd R-f Plate Filter</td>
<td>Same as C111</td>
<td>CD-48847-B10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C234</td>
<td>Converter Cathode By-pass Capacitor</td>
<td>Same as C111</td>
<td>CD-48847-B10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C235</td>
<td>Converter Screen By-pass Capacitor</td>
<td>Same as C111</td>
<td>CD-48847-B10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C236</td>
<td>Converter Oscillator Grid Blocking Capacitor</td>
<td>Mica, 25 mmfd ±5%, 250 volts d-c working</td>
<td>RE 13A 380K</td>
<td>4 Type &quot;moulded silver cap&quot;</td>
<td>K-7877485-F14</td>
</tr>
<tr>
<td>C237</td>
<td>Converter Oscillator</td>
<td>Same as C134</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C238</td>
<td>Converter Plate Tuning Capacitor</td>
<td>Mica, 300 mmfd ±5%, 250 volts d-c working, included with C311</td>
<td>RE 13A 380K</td>
<td>4 Type &quot;moulded silver cap&quot;</td>
<td>K-7877485-P27</td>
</tr>
</tbody>
</table>

Δ Symbol part designation, if any.
* Style or other applicable designation, if any.
* SPARE PARTS FURNISHED. Refer to Table III for quantities.
<table>
<thead>
<tr>
<th>SYMBOL DESIGNATION</th>
<th>FUNCTION</th>
<th>DESCRIPTION</th>
<th>NAVY TYPE DESIGN.</th>
<th>NAVY DWG. OR SPEC. NUMBER</th>
<th>MFR.</th>
<th>MFR. DESIGN.</th>
<th>CONTRACTOR'S DRAWING AND PART NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>C339</em></td>
<td>1st I-f Grid Tuning Capacitor</td>
<td>Same as C338, included with T311</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td><em>C340</em></td>
<td>Beat Oscillator Plate Blocking Capacitor</td>
<td>Same as C134, included with T312</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td><em>C341</em></td>
<td>Beat Oscillator Grid Blocking Capacitor</td>
<td>Same as C336, included with T312</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td><em>C342</em></td>
<td>I-f Tuning Capacitor</td>
<td>Same as C250, included with T312</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td><em>C342 A</em></td>
<td>Beat Oscillator Tuning Capacitor</td>
<td>Included with C342</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td><em>C342 B</em></td>
<td>3rd I-f Plate Tuning Capacitor</td>
<td>Included with C342</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td><em>C343</em></td>
<td>Beat Oscillator Tuning Capacitor</td>
<td>Mica, 200 mmfd ±0.5%, 250 volts d-c working, included with T312</td>
<td>-</td>
<td>RE 13A 389K</td>
<td>4</td>
<td>K-7877165-P42</td>
<td></td>
</tr>
<tr>
<td><em>C344</em></td>
<td>Beat Oscillator Temperature Compensating Capacitor</td>
<td>Ceramic, 30 mmfd ±5%, 500 volts d-c working, temperature coefficient 0.000680 mmf/mm deg C, included with T312</td>
<td>-</td>
<td>-</td>
<td>5</td>
<td>K-7877165-P5</td>
<td></td>
</tr>
<tr>
<td><em>C345</em></td>
<td>1st I-f AVC Filter Capacitor</td>
<td>Same as C111, included with T311</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td><em>C346</em></td>
<td>R-f Oscillator Temperature Compensating Capacitor</td>
<td>Ceramic, 26 mmfd ±5%, 500 volts d-c working, temperature coefficient 0.000680 mmf/mm deg C</td>
<td>-</td>
<td>CD-48847-D10</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td><em>C347</em></td>
<td>Band 1, R-f Oscillator Trimming Capacitor</td>
<td>Same as C102</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td><em>C348</em></td>
<td>Band 2, R-f Oscillator Padding Capacitor</td>
<td>Same as C246</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td><em>C349</em></td>
<td>Band 3, R-f Oscillator Trimming Capacitor</td>
<td>Same as C103</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td><em>C350</em></td>
<td>Band 5, R-f Oscillator Padding Capacitor</td>
<td>Mica, 70 mmfd ±2%, 250 volts d-c working</td>
<td>-</td>
<td>RE 13A 389K</td>
<td>4</td>
<td>K-7877165-716</td>
<td></td>
</tr>
<tr>
<td><em>C351</em></td>
<td>Band 3, R-f Oscillator Trimming Capacitor</td>
<td>Same as C102</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td><em>C352</em></td>
<td>Band 4, R-f Oscillator Padding Capacitor</td>
<td>Same as C336</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td><em>C353</em></td>
<td>Band 4, R-f Oscillator Capacitor</td>
<td>Same as C102</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

* Symbol part designation, if any.
† Style or other applicable designation, if any.
* SPARE PARTS FURNISHED. Refer to Table III for quantities.
<table>
<thead>
<tr>
<th>SYMBOL DESIGNATION</th>
<th>FUNCTION</th>
<th>DESCRIPTION</th>
<th>NAVY TYPE</th>
<th>NAVY DWG. OR SPEC. NUMBER</th>
<th>MFR.</th>
<th>MFR. DESIG.</th>
<th>CONTRACTOR'S DRAWING AND PART NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>C354</td>
<td>Band 5, R-f Oscillator</td>
<td>Temperature Compensating Capacitor</td>
<td>Ceramic, 5 mmfd ±10%, 500 volts d-c working, temperature coefficient, 0.000690 mmfd/mmfd/deg C</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>5 Type N680K2 (modified)</td>
</tr>
<tr>
<td>C355</td>
<td>Band 5, R-f Oscillator</td>
<td>Trimming Capacitor</td>
<td>Same as C103</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>C356</td>
<td>Not Used</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>C357</td>
<td>Not Used</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>C358</td>
<td>2nd R-f Grid Blocking Capacitor</td>
<td>Same as C171</td>
<td>CD-481015-B10</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>C359</td>
<td>1st I-f Filament By-pass Capacitor</td>
<td>Same as C220</td>
<td>CD-48848-B10</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>C360</td>
<td>1st I-f Plate By-pass Capacitor</td>
<td>Same as C111</td>
<td>CD-48847-B10</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>C361</td>
<td>2nd I-f Grid Tuning Capacitor</td>
<td>Same as C338, included with T319</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>C362</td>
<td>1st I-f Plate Tuning Capacitor</td>
<td>Same as C338, included with T319</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>C363</td>
<td>AVC Filter Capacitor</td>
<td>Same as C220</td>
<td>CD-48848-B10</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>C364</td>
<td>1st R-f Suppressor By-pass Capacitor</td>
<td>Same as C111</td>
<td>CD-48847-B10</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>C365</td>
<td>1st I-f Cathode By-pass Capacitor</td>
<td>Same as C111</td>
<td>CD-48847-B10</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>C366</td>
<td>Not Used</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>C367</td>
<td>Power Supply Filter Capacitor</td>
<td>Same as C111</td>
<td>CD-48847-B10</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>C368</td>
<td>Power Supply Filter Capacitor</td>
<td>Same as C160</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>C368 A</td>
<td>Power Supply Filter Capacitor</td>
<td>Included in C368</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>C368 B</td>
<td>Power Supply Filter Capacitor</td>
<td>Included in C368</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>C368 C</td>
<td>Power Supply Filter Capacitor</td>
<td>Included in C368</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>C369</td>
<td>Not Used</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>C370</td>
<td>Power Input Filter Capacitor</td>
<td>Same as C220</td>
<td>CD-48848-B10</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>C371</td>
<td>Cathode By-pass Capacitor</td>
<td>Same as C220</td>
<td>CD-48848-B10</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

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 RA-1 AIRCRAFT RADIO RECEIVING EQUIPMENT**

**RADIO RECEIVER 7000-27,000 KC, NAVY TYPE CD-46117**

<table>
<thead>
<tr>
<th>SYMBOL DESIGNATION</th>
<th>FUNCTION</th>
<th>DESCRIPTION</th>
<th>NAVY TYPE DESIG.</th>
<th>NAVY DWG. OR SPEC. NUMBER</th>
<th>MFR. PART</th>
<th>MFR. DESIGN</th>
<th>CONTRACTOR'S DRAWING AND PART NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>*C372</td>
<td>2nd I-f Screen By-pass Capacitor</td>
<td>Same as CD-48847-B10</td>
<td>CD-48847-B10</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C373</td>
<td>3rd I-f Cathode By-pass Capacitor</td>
<td>Same as CD-48847-B10</td>
<td>CD-48847-B10</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C374</td>
<td>Audio Cathode By-pass Capacitor</td>
<td>Same as CD-48847-B10</td>
<td>CD-48847-B10</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C375</td>
<td>BFO Cathode By-pass Capacitor</td>
<td>Same as CD-48847-B10</td>
<td>CD-48847-B10</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C376</td>
<td>3rd I-f Screen By-pass Capacitor</td>
<td>Same as CD-48847-B10</td>
<td>CD-48847-B10</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C377</td>
<td>Audio Coupling Capacitor</td>
<td>Same as CD-48847-B10</td>
<td>CD-48847-B10</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C378</td>
<td>Audio Diode Filter</td>
<td>Mica, 350 mmfd ±10%, 250 volts d-c working, included with T321</td>
<td>CD-48847-B10</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C379</td>
<td>Audio Diode Filter</td>
<td>Mica, 350 mmfd ±10%, 250 volts d-c working, included with T321</td>
<td>CD-48847-B10</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C380</td>
<td>2nd I-f Plate By-pass Capacitor</td>
<td>Same as CD-48847-B10</td>
<td>CD-48847-B10</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C381</td>
<td>2nd I-f Plate Tuning Capacitor</td>
<td>Mica, 400 mmfd ±5%, 250 volts d-c working, included with T321</td>
<td>CD-48847-B10</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C382</td>
<td>3rd I-f Grid Tuning Capacitor</td>
<td>Same as CD-48847-B10</td>
<td>CD-48847-B10</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C383</td>
<td>AVC Diode Blocking Capacitor</td>
<td>Same as CD-48847-B10</td>
<td>CD-48847-B10</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C384</td>
<td>3rd I-f Plate Tuning Capacitor</td>
<td>Mica, 175 mmfd ±5%, 250 volts d-c working, included with T321</td>
<td>CD-48847-B10</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C385</td>
<td>3rd I-f Plate Filter Capacitor</td>
<td>Same as CD-48847-B10</td>
<td>CD-48847-B10</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C386</td>
<td>Audio Diode Tuning Capacitor</td>
<td>Same as CD-48847-B10</td>
<td>CD-48847-B10</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C387</td>
<td>Plate By-pass Capacitor</td>
<td>Mica, 0.0-5 mfd ±10%, 300 volts d-c working</td>
<td>CD-48847-B10</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C388</td>
<td>Filament By-pass Capacitor</td>
<td>Same as CD-48847-B10</td>
<td>CD-48847-B10</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C389</td>
<td>Diode Output Filter Capacitor</td>
<td>Same as CD-48847-B10</td>
<td>CD-48847-B10</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C390</td>
<td>3rd I-f Filament By-pass Capacitor</td>
<td>Same as CD-48847-B10</td>
<td>CD-48847-B10</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

△ 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

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

Δ Symbol part designation, if any.
\(^w^\) Style or other applicable designation, if any.
* SPARE PARTS FURNISHED. Refer to Table III for quantities.
<table>
<thead>
<tr>
<th>SYMBOL DESIGNATION</th>
<th>FUNCTION</th>
<th>DESCRIPTION</th>
<th>NAVY TYPE DESIG.</th>
<th>NAVY ENG. OR SPEC. NUMBER</th>
<th>NBR.</th>
<th>NBR. DESIG.</th>
<th>CONTRACTOR'S DRAWING AND PART NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>*C411</td>
<td>Band 2, 2nd R-f Paddling Capacitor</td>
<td>Same as C246</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C412</td>
<td>Band 3, 2nd R-f Paddling Capacitor</td>
<td>Same as C319</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C413</td>
<td>Band 4, 2nd R-f Paddling Capacitor</td>
<td>Same as C410</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C414</td>
<td>Audio Screen By-pass Capacitor</td>
<td>Same as C106</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C415</td>
<td>Band 5, 2nd R-f Paddling Capacitor</td>
<td>Same as C415</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C416</td>
<td>Band 6, 2nd R-f Paddling Capacitor</td>
<td>Same as C218</td>
<td>CD-48848-B10</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C417</td>
<td>Audio Cathode Filter Capacitor</td>
<td>Same as C220</td>
<td>CD-48848-B10</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C418</td>
<td>Power Input Filter Capacitor</td>
<td>Same as C220</td>
<td>CD-48848-B10</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C419</td>
<td>Audio Filter Tuning Capacitor</td>
<td>Same as C220</td>
<td>CD-48848-B10</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C420</td>
<td>Audio Cathode Filter Capacitor</td>
<td>Same as C218</td>
<td>CD-48848-B10</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C421</td>
<td>Not Used</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*C422</td>
<td>BFO Plate Filter Capacitor</td>
<td>Same as C220</td>
<td>CD-48848-B10</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>D301</td>
<td>Dynamotor</td>
<td>Same as D101</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>F301</td>
<td>Power Input Fuse</td>
<td>Same as F101</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>J301</td>
<td>Phone Jack</td>
<td>Same as J101</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>L301 to L305</td>
<td>Not Used</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Δ Symbol part designation, if any.
* Style or other applicable designation, if any.
* SPARE PARTS FURNISHED. Refer to Table III for quantities.
<table>
<thead>
<tr>
<th>SYMBOL DESIGNATION</th>
<th>FUNCTION</th>
<th>DESCRIPTION</th>
<th>NAVY TYPE DESIGN.</th>
<th>NAVY DWG. OR SPEC. NUMBER</th>
<th>MFR.</th>
<th>MFR. DESIGN.</th>
<th>CONTRACTOR'S DRAWING AND PART NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>*L306</td>
<td>Power Supply R-f Choke coil</td>
<td>Same as L103</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*L307</td>
<td>Power Supply Reactor</td>
<td>Same as L104</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*L308</td>
<td>Power Input R-f Choke coil</td>
<td>Same as L105</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>L309</td>
<td>Not Used</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>L310</td>
<td>Not Used</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>L311</td>
<td>Not Used</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*L312</td>
<td>R-f Oscillator Plate Choke Coil</td>
<td>Consists of 200 turns #3 wire, Universal wound, 2 crosses per turn, on 1/4-in. compound coil form, 1300 microhenries (approx)</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>-</td>
<td>K-7877552-P1</td>
</tr>
<tr>
<td>L313</td>
<td>Not Used</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*L314</td>
<td>Power Input R-f Choke Coil</td>
<td>Same as L108</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*L315</td>
<td>Audio Cathode Filter Reactor</td>
<td>Same as L210</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>F301</td>
<td>Power Plug</td>
<td>Same as F101</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**PLUGS**

**RESISTORS**

<table>
<thead>
<tr>
<th>RESISTORS</th>
<th>R301</th>
<th>R302</th>
<th>R303</th>
<th>R304</th>
<th>R305</th>
<th>R306</th>
<th>R307</th>
<th>R308</th>
<th>R309</th>
<th>R310</th>
</tr>
</thead>
<tbody>
<tr>
<td>R301</td>
<td>Not Used</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*R302</td>
<td>1st R-f Cathode Resistor Composition, 220 ohms ±10%</td>
<td>CBZ-63360</td>
<td>RE 13 A 3720</td>
<td>8</td>
<td>Type KB</td>
<td>P-776599-P54</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*R303</td>
<td>Converter Plate Filter Resistor Same as R205</td>
<td>CBZ-63360</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*R304</td>
<td>1st R-f Screen Filter Resistor Same as R109</td>
<td>CBZ-63360</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*R305</td>
<td>1st R-f Plate Filter Resistor</td>
<td>Same as R205</td>
<td>CBZ-63360</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*R306</td>
<td>2nd R-f Grid Resistor Same as R159</td>
<td>CBZ-63360</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*R307</td>
<td>2nd R-f Cathode Bias Resistor Same as R302</td>
<td>CBZ-63360</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*R308</td>
<td>2nd R-f Gain Equalizing Potentiometer Total resistance, 2500 ohms ±10%</td>
<td>-</td>
<td>-</td>
<td>8</td>
<td>Bradleyometer Type J</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*R309</td>
<td>2nd R-f Screen Resistor Same as R109</td>
<td>CBZ-63360</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*R310</td>
<td>AVG Diode Delay Resistor Composition, 47,000 ohms ±10%, 1 watt</td>
<td>CBZ-63688</td>
<td>RE 13 A 3720</td>
<td>8</td>
<td>Type GB</td>
<td>P-7763600-P82</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* 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 CO-96117**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><em>R311</em></td>
<td>2nd R-f Plate Filter Resistor</td>
<td>Same as R205</td>
<td>CBE-63360</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><em>R312</em></td>
<td>Converter Grid Resistor</td>
<td>Same as R149</td>
<td>CBE-63360</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><em>R313</em></td>
<td>Converter Cathode Resistor</td>
<td>Same as R169</td>
<td>CBE-63360</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><em>R314</em></td>
<td>R-f Oscillator Plate Resistor</td>
<td>Same as R107</td>
<td>CBE-63360</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><em>R315</em></td>
<td>Converter Screen Resistor Composition, 8200 ohms ±5%, 1 watt</td>
<td>CBE-63360 RE 13A 3720</td>
<td>8 Type GB</td>
<td>P-7763600-P181</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>R316</em></td>
<td>R-f Oscillator Grid Resistor</td>
<td>Same as R128</td>
<td>CBE-63360</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><em>R317</em></td>
<td>1st I-f AVC Filter Resistor</td>
<td>Same as R164, included with T311</td>
<td>CBE-63360</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><em>R318</em></td>
<td>Not Used</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><em>R319</em></td>
<td>Not Used</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><em>R320</em></td>
<td>Audio Cathode Resistor</td>
<td>Same as R177</td>
<td>CBE-63360</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><em>R321</em></td>
<td>AVC Diode Relay Resistor</td>
<td>Same as R230</td>
<td>CBE-63360</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><em>R322</em></td>
<td>AVC Filter Resistor</td>
<td>Same as R105</td>
<td>CBE-63360</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><em>R323</em></td>
<td>1st I-f Cathode Resistor Composition, 560 ohms ±10%, 1/2 watt</td>
<td>CBE-63360 RE 13A 3720</td>
<td>8 Type RB</td>
<td>P-7763599-P59</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>R324</em></td>
<td>Cathode Delay Resistor Composition, 910 ohms ±5%, 1 watt</td>
<td>CBE-63360 RE 13A 3720</td>
<td>8 Type RB</td>
<td>P-7763599-P182</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>R325</em></td>
<td>Not Used</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><em>R326</em></td>
<td>Volume Control Gang Potentiometer</td>
<td>Same as R228</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>R326 A</td>
<td>AVC Section of Potentiometer</td>
<td>Same as R222A except included in R326</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>R326 B</td>
<td>AVC Section of Potentiometer</td>
<td>Same as R222B except included in R326</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><em>R327</em></td>
<td>Not Used</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><em>R328</em></td>
<td>Screen Supply Bleeder Resistor Composition, 2700 ohms ±5%, 1 watt</td>
<td>CBE-63360 RE 13A 3720</td>
<td>8 Type GB</td>
<td>P-7763600-P169</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>R329</em></td>
<td>3rd I-f Cathode Resistor</td>
<td>Same as R169</td>
<td>CBE-63360</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><em>R330</em></td>
<td>AVC Diode Load Resistor</td>
<td>Same as R159</td>
<td>CBE-63360</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><em>R331</em></td>
<td>1st R-f Grid Resistor</td>
<td>Same as R159</td>
<td>CBE-63360</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><em>R332</em></td>
<td>3rd I-f Screen Resistor Composition, 18,000 ohms ±10%, 1/2 watt</td>
<td>CBE-63360 RE 13A 3720</td>
<td>8 Type RB</td>
<td>P-7763599-P77</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>R333</em></td>
<td>I-f Plate Filter Resistor</td>
<td>Same as R203</td>
<td>CBE-63360</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><em>R334</em></td>
<td>Audio Diode Load Resistor</td>
<td>Same as R165</td>
<td>CBE-63360</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><em>R335</em></td>
<td>Not Used</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><em>R336</em></td>
<td>Audio Diode Filter Resistor</td>
<td>Same as R216, included with T321</td>
<td>CBE-63360</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

A 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**

<table>
<thead>
<tr>
<th>SYMBOL DESIGNATION</th>
<th>FUNCTION</th>
<th>DESCRIPTION</th>
<th>NAVY TYPE</th>
<th>NAVY MFG. OR SPEC. NUMBER</th>
<th>MFR. DESIG.</th>
<th>CONTRACTOR'S DRAWING AND PART NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>*R337</td>
<td>3rd I-f Plate Filter Resistor</td>
<td>Same as R203</td>
<td>CEB-63560</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*R338</td>
<td>BFO Plate Resistor</td>
<td>Same as R107</td>
<td>CEB-63560</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*R339</td>
<td>BFO Grid Resistor</td>
<td>Composition, 150,000 ohms ±5%, 1/2 watt, included with T312</td>
<td>CEB-63555</td>
<td>RR 13A 3720 - 8 Type KB</td>
<td>P-7763599-P211</td>
<td>-</td>
</tr>
<tr>
<td>*R340</td>
<td>2nd I-f Grid Filter Resistor</td>
<td>Same as R109</td>
<td>CEB-63560</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*R341</td>
<td>2nd I-f Cathode Resistor</td>
<td>Same as R164, included with T319</td>
<td>CEB-63560</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*R342</td>
<td>Screen Supply Bleder Resistor</td>
<td>Composition, 35,000 ohms ±10%, 1 watt</td>
<td>CEB-63288</td>
<td>RR 13A 3720 - 8 Type GB</td>
<td>P-7763600-P80</td>
<td>-</td>
</tr>
<tr>
<td>*R343</td>
<td>2nd I-f Cathode Resistor</td>
<td>Same as R130</td>
<td>CEB-63560</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*R344</td>
<td>Screen Supply Bleder Resistor</td>
<td>Composition, 2700 ohms ±10%, 1 watt</td>
<td>CEB-63288</td>
<td>RR 13A 3720 - 8 Type GB</td>
<td>P-7763600-P67</td>
<td>-</td>
</tr>
<tr>
<td>*R345</td>
<td>Band 1, 2nd R-f Gain Equalizing Resistor</td>
<td>Same as R109</td>
<td>CEB-63560</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*R346</td>
<td>MVC Bias Bleder Resistor</td>
<td>Composition, 68,000 ohms ±10%, 1/2 watt</td>
<td>CEB-63560</td>
<td>RR 13A 3720 - 8 Type GB</td>
<td>P-7763599-P64</td>
<td>-</td>
</tr>
<tr>
<td>*R347</td>
<td>Audio Diode Filter Resistor</td>
<td>Same as R234</td>
<td>CEB-63555</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*R348</td>
<td>BFO Plate Filter Resistor</td>
<td>Same as R205</td>
<td>CEB-63560</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*R349</td>
<td>1st I-f Cathode Resistor</td>
<td>Same as R109</td>
<td>CEB-63560</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**SWITCHES**

<table>
<thead>
<tr>
<th>PART</th>
<th>FUNCTION</th>
<th>DESCRIPTION</th>
<th>NAVY TYPE</th>
<th>NAVY MFG. OR SPEC. NUMBER</th>
<th>MFR. DESIG.</th>
<th>CONTRACTOR'S DRAWING AND PART NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>5301</td>
<td>Antenna Band Switch</td>
<td>Rotary tap switch, 5 position, 3 bank</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5301 A</td>
<td>Antenna Band Switch</td>
<td>Included in 8301</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5301 B</td>
<td>Antenna Band Switch</td>
<td>Included in 8301</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5301 C</td>
<td>Antenna Band Switch</td>
<td>Included in 8301</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5302</td>
<td>AVC-MVC Switch</td>
<td>Same as S102</td>
<td>Included in 8302</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5302 A</td>
<td>AVC-MVC Switch</td>
<td>Included in 8302</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5302 B</td>
<td>AVC-MVC Switch</td>
<td>Included in 8302</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5302 C</td>
<td>AVC-MVC Switch</td>
<td>Included in 8302</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5303</td>
<td>CW-Off-MCW Switch</td>
<td>Same as S103</td>
<td>Included in 8303</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5303 A</td>
<td>CW-Off-MCW Switch</td>
<td>Included in 8303</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5303 B</td>
<td>CW-Off-MCW Switch</td>
<td>Included in 8303</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5304</td>
<td>Not Used</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5305</td>
<td>1st R-f Band Switch</td>
<td>Same as S301</td>
<td>Included in 8305</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5305 A</td>
<td>1st R-f Band Switch</td>
<td>Included in 8305</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

△ 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 GO-46117

<table>
<thead>
<tr>
<th>SYMBOL DESIGNATION</th>
<th>FUNCTION</th>
<th>DESCRIPTION</th>
<th>NAVY TYPE DESIG.</th>
<th>NAVY DWG. OR SPEC. NUMBER</th>
<th>MPN</th>
<th>MFR. DESIG.</th>
<th>CONTRACTORS DRAWING AND PART NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S305</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>1st R-f Band Switch</td>
<td>Included in S305</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>C</td>
<td>1st R-f Band Switch</td>
<td>Included in S305</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>S306</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>2nd R-f Band Switch</td>
<td>Same as S301</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>S306</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>2nd R-f Band Switch</td>
<td>Included in S306</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>S307</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>R-f Oscillator Band Switch</td>
<td>Rotary tap switch, 5 position, 4 bank</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>9 Type RMC</td>
<td>M-7464376-P2</td>
</tr>
<tr>
<td>S307</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>R-f Oscillator Band Switch</td>
<td>Included in S307</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>S307</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>R-f Oscillator Band Switch</td>
<td>Included in S307</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>S307</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>R-f Oscillator Band Switch</td>
<td>Included in S307</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>S307</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>R-f Oscillator Band Switch</td>
<td>Included in S307</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>S308</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Selecting Switch</td>
<td>Rotary tap switch, 3 position, single bank</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>9</td>
<td>M-7463887-P4</td>
</tr>
</tbody>
</table>

### TRANSFORMERS

<table>
<thead>
<tr>
<th>SYMBOL DESIGNATION</th>
<th>FUNCTION</th>
<th>DESCRIPTION</th>
<th>NAVY TYPE DESIG.</th>
<th>NAVY DWG. OR SPEC. NUMBER</th>
<th>MPN</th>
<th>MFR. DESIG.</th>
<th>CONTRACTORS DRAWING AND PART NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T301</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>Band 1, Antenna Transformer</td>
<td>Primary, 11 1/2 turns ES wire, close wound; 2.1 microhenries (approx)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>M-7877378</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T302</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>Antenna Transformer</td>
<td>Primary, 5 1/2 turns ES wire, close wound; 3 1/2 turns ES wire, 0.7 microhenries (approx), 0.4 microhenries (approx)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>K-7877379</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T302</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>Band 2, Antenna Transformer</td>
<td>Included in T302</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T302</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>Band 3, Antenna Transformer</td>
<td>Included in T302</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T303</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>Band 4, Antenna Transformer</td>
<td>Primary, 3 1/2 turns ES wire, close wound; 0.4 microhenries (approx)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>K-7877380</td>
</tr>
</tbody>
</table>

\* Symbol part designation, if any.
\* Style or other applicable designation, if any.
### TABLE VI (CONT'D)

**PARTS LIST BY SYMBOL DESIGNATIONS**

*NAVY MODEL RAX-1 AIRCRAFT RADIO RECEIVING EQUIPMENT*

**RADIO RECEIVER 7000-27,000 KC, NAVY TYPE C-4617**

<table>
<thead>
<tr>
<th>SYMBOL DESIGNATION</th>
<th>FUNCTION</th>
<th>DESCRIPTION</th>
<th>NAVY TYPE DESIG.</th>
<th>NAVY ENG. OR SPEC. NUMBER</th>
<th>MFR. DESIGN.</th>
<th>CONTRACTOR'S DRAWING AND PART NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>T305</td>
<td>Band 5, Antenna Transformer</td>
<td>Primary, 2 1/4 turns ES wire, close wound&lt;br&gt;Secondary, 3 3/8 turns E wire</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>4</td>
</tr>
<tr>
<td>T306</td>
<td>Band 1, 1st R-f Transformer</td>
<td>Primary, 43 1/2 turns ES wire, Universal wound, 9.1 microhenries (approx)&lt;br&gt;Secondary, 19 1/2 turns E wire, 3 0 microhenries (approx)&lt;br&gt;Mutual inductance 0.8 microhenries (approx)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>4</td>
</tr>
<tr>
<td>T307</td>
<td>1st R-f Transformer</td>
<td>Primary, 30 1/2 turns ES wire, Universal wound; 5 3/8 turns KDS wire, close wound, 19.6 microhenries (approx), 0.8 microhenries (approx)&lt;br&gt;Secondary, 10 1/3 turns E wire; 8 1/8 turns E wire; 1.3 microhenries (approx), 0.9 microhenries (approx)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>4</td>
</tr>
<tr>
<td>T307 A</td>
<td>Band 2, R-f Transformer</td>
<td>Included in T307</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>T308</td>
<td>Band 3, 2nd R-f Transformer</td>
<td>Included in T307</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>T309</td>
<td>Not Used</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>T309</td>
<td>Band 4, 1st R-f Transformer</td>
<td>Primary, 4 1/2 turns KDS wire, close wound, 0.6 microhenries (approx)&lt;br&gt;Secondary, 5 turns E wire, 0.4 microhenries (approx)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>4</td>
</tr>
<tr>
<td>T310</td>
<td>Band 5, 1st R-f Transformer</td>
<td>3 3/4 turns E wire, wound on grooved form</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>4</td>
</tr>
<tr>
<td>T311</td>
<td>1st I-f Transformer</td>
<td>Primary, 33 turns E wire, 9.1 microhenries ±1%&lt;br&gt;Secondary, 33 turns E wire, 9.1 microhenries ±1%&lt;br&gt;Includes C338, C339, C345, R317</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>4</td>
</tr>
<tr>
<td>T312</td>
<td>Beat Oscillator Transformer - 3rd I-f Transformer</td>
<td>Primary, 39 turns E wire, 11.0 microhenries ±1%&lt;br&gt;Secondary, 33 turns E wire, 9.2 microhenries ±1%&lt;br&gt;Includes C340, C341, C344, C343, C381, C382, C342, R339</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>4</td>
</tr>
</tbody>
</table>

\*\* 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 CQ-46117**

<table>
<thead>
<tr>
<th>SYMBOL DESIGNATION</th>
<th>FUNCTION</th>
<th>DESCRIPTION</th>
<th>NAVY TYPE DESIG.</th>
<th>NAVY DWG. OR SPEC. NUMBER</th>
<th>MFR.</th>
<th>MFR. DESIG.</th>
<th>CONTRACTOR'S DRAWING AND PART NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>T313</td>
<td>Not Used</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T314</td>
<td>Band 1, R-f Oscillator Transformer</td>
<td>Primary, 5 1/2 turns EDS wire, close wound, 0.9 microhenries (approx) Secondary, 11 1/2 turns B wire, 2.0 microhenries (approx)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T315</td>
<td>Band 2, R-f Oscillator Transformer</td>
<td>Primary, 5 1/8 turns EDS wire, 0.9 microhenries (approx) Secondary, 7 1/4 turns B wire, 0.9 microhenries (approx)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T316</td>
<td>Band 3, R-f Oscillator Transformer</td>
<td>Primary, 5 turns EDS wire, close wound, 0.7 microhenries (approx) Secondary, 8 5/6 turns B wire, 1.3 microhenries (approx)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T317</td>
<td>Band 4, R-f Oscillator Transformer</td>
<td>Primary, 6 1/4 turns E3 wire, close tension wound, 0.7 microhenries (approx)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T318</td>
<td>Band 5, R-f Oscillator Transformer</td>
<td>Primary, 5 1/4 turns EDS wire, close tension wound, 0.5 microhenries (approx) Secondary, 4 1/4 turns B wire, 0.2 microhenries (approx)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T319</td>
<td>2nd I-f Transformer</td>
<td>Primary, 36 turns E3 wire Secondary, 36 turns E3 wire Includes C361, C362, C395, R341</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T320</td>
<td>Not Used</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T321</td>
<td>4th I-f Transformer</td>
<td>Primary, 45 turns E3 wire, 17.7 microhenries ±1% Secondary, 60 turns E3 wire, 28.9 microhenries ±1% Includes C375, C379, C384, C386, R336</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*T322</td>
<td>Output Transformers</td>
<td>Same as T117</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T323</td>
<td>Not Used</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Δ Symbol part designation, if any.

✈ Style or other applicable designation, if any.

* SPARE PARTS FURNISHED. Refer to Table III for quantities.
<table>
<thead>
<tr>
<th>SYMBOL DESIGNATION</th>
<th>FUNCTION</th>
<th>DESCRIPTION</th>
<th>NAVY TYPE DESIGN.</th>
<th>NAVY INV. OR SPEC. NUMBER</th>
<th>MFR. DESIGN.</th>
<th>CONTRACTOR'S DRAWING AND PART NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>T324</td>
<td>Band 1, 2nd R-f Transformer</td>
<td>Primary, 43 1/2 turns E5 wire, Universal wound, 39.1 micro- henries (approx) Secondary, 19 1/2 turns E wire, 2.9 microhenries (approx) Mutual inductance 0.4 microhenries (approx)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>4</td>
</tr>
<tr>
<td>T325</td>
<td>2nd R-f Transformer</td>
<td>Primary, 30 1/2 turns E5 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; 1.9 microhenries (approx), 0.9 microhenries (approx)</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>K-7877387</td>
</tr>
<tr>
<td>T325 A</td>
<td>Band 2, 2nd R-f Transformer</td>
<td>Included in T325</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>T325 B</td>
<td>Band 3, 2nd R-f Transformer</td>
<td>Included in T325</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>T326</td>
<td>Not Used</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>T327</td>
<td>Band 4, 2nd R-f Transformer</td>
<td>Primary, 5 1/2 turns EDS wire, close wound, 0.8 microhenries (approx) Secondary, 5 turns E wire, 0.4 microhenries (approx)</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>K-7877388</td>
</tr>
<tr>
<td>T328</td>
<td>Band 5, 2nd R-f Transformer</td>
<td>3 3/4 turns E wire, wound on grooved form</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>K-7877389</td>
</tr>
</tbody>
</table>

**VACUUM TUBES**

<table>
<thead>
<tr>
<th>SYMBOL DESIGNATION</th>
<th>FUNCTION</th>
<th>DESCRIPTION</th>
<th>NAVY TYPE DESIGN.</th>
<th>NAVY INV. OR SPEC. NUMBER</th>
<th>MFR. DESIGN.</th>
<th>CONTRACTOR'S DRAWING AND PART NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>V301</td>
<td>1st R-f Amplifier Tube</td>
<td>Same as V101</td>
<td>CRC-12SK7</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>V302</td>
<td>Converter Tube</td>
<td>Same as V102</td>
<td>CRC-12SK8</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>V303</td>
<td>1st I-f Amplifier Tube</td>
<td>Same as V101</td>
<td>CRC-12SK7</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>V304</td>
<td>2nd I-f Amplifier Tube</td>
<td>Same as V101</td>
<td>CRC-12SK7</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>V305</td>
<td>3rd I-f Amplifier Tube</td>
<td>Same as V101</td>
<td>CRC-12SK7</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>V306</td>
<td>Audio Amplifier Tube</td>
<td>Same as V105</td>
<td>CRC-12A6</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>V307</td>
<td>BFO 2nd Detector Tube</td>
<td>Same as V106</td>
<td>CRC-12SR7</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>V308</td>
<td>2nd R-f Amplifier Tube</td>
<td>Same as V101</td>
<td>CRC-12SR7</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>V309</td>
<td>Input Voltage Limiter Glow Tube</td>
<td>Same as V107</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

*A 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 CO-46117**

<table>
<thead>
<tr>
<th>SYMBOL DESIGNATION</th>
<th>FUNCTION</th>
<th>DESCRIPTION</th>
<th>NAVY TYPE DESIG.</th>
<th>NAVY DWG. OR SPEC. NUMBER</th>
<th>MPR. DESIGN.</th>
<th>CONTRACTOR'S DRAWING AND PART NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>X301</td>
<td>1st R-f Tube Socket</td>
<td>Same as X101</td>
<td>CPH-49373</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>X302</td>
<td>Converter Tube Socket</td>
<td>Same as X101</td>
<td>CPH-49373</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>X303</td>
<td>1st I-f Tube Socket</td>
<td>Same as X101</td>
<td>CPH-49373</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>X304</td>
<td>2nd I-f Tube Socket</td>
<td>Same as X101</td>
<td>CPH-49373</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>X305</td>
<td>3rd I-f Tube Socket</td>
<td>Same as X101</td>
<td>CPH-49373</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>X306</td>
<td>Audio Tube Socket</td>
<td>Same as X101</td>
<td>CPH-49373</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>X307</td>
<td>2nd R-f Detector Tube</td>
<td>Same as X101</td>
<td>CPH-49373</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>X308</td>
<td>2nd R-f Tube Socket</td>
<td>Same as X101</td>
<td>CPH-49373</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

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 JUNCTION BOX, NAVY TYPE CO-62028**

<table>
<thead>
<tr>
<th>SYMBOL DESIGNATION</th>
<th>FUNCTION</th>
<th>DESCRIPTION</th>
<th>NAVY TYPE DESIG.</th>
<th>NAVY INV. OR SPEC. NUMBER</th>
<th></th>
<th>MFR. DESIG.</th>
<th>CONTRACTOR'S DRAWING AND PART NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>J501</td>
<td>Phone Jack</td>
<td>Same as J101</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>J502</td>
<td>Phone Jack</td>
<td>Same as J101</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>J503</td>
<td>Phone Jack</td>
<td>Same as J101</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>J504</td>
<td>Phone Jack</td>
<td>Same as J101</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>J505</td>
<td>Power Receptacle</td>
<td>Same as P101</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>J506</td>
<td>Power Receptacle</td>
<td>Same as P101</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>J507</td>
<td>Power Receptacle</td>
<td>Same as P101</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>J508</td>
<td>Power Receptacle</td>
<td>Same as P101</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Δ Symbol part designation, if any.

≠ Style or other applicable designation, if any.

---

**JACKS AND RECEPTACLES**

<table>
<thead>
<tr>
<th>SYMBOL DESIGNATION</th>
<th>FUNCTION</th>
<th>DESCRIPTION</th>
<th>NAVY TYPE DESIG.</th>
<th>NAVY INV. OR SPEC. NUMBER</th>
<th></th>
<th>MFR. DESIG.</th>
<th>CONTRACTOR'S DRAWING AND PART NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>J501</td>
<td>Phone Jack</td>
<td>Same as J101</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>J502</td>
<td>Phone Jack</td>
<td>Same as J101</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>J503</td>
<td>Phone Jack</td>
<td>Same as J101</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>J504</td>
<td>Phone Jack</td>
<td>Same as J101</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>J505</td>
<td>Power Receptacle</td>
<td>Same as P101</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>J506</td>
<td>Power Receptacle</td>
<td>Same as P101</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>J507</td>
<td>Power Receptacle</td>
<td>Same as P101</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>J508</td>
<td>Power Receptacle</td>
<td>Same as P101</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>SYMBOL DESIGNATION</th>
<th>FUNCTION</th>
<th>DESCRIPTION</th>
<th>NAVY TYPE DESIGNATION</th>
<th>NAVY MFG. OR SPEC. NUMBER</th>
<th>MFR.</th>
<th>MFR. DESIGN.</th>
<th>CONTRACTOR'S DRAWING AND PART NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>J601</td>
<td>Not Used</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>J602</td>
<td>Not Used</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>J603</td>
<td>Power Receptacle</td>
<td>4 contact</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>J604 to J607</td>
<td>Not Used</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>J608</td>
<td>Power Receptacle</td>
<td>Disconnect, 4 pin, insulated</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>J609</td>
<td>Phone Jack</td>
<td>Same as J101</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>J610</td>
<td>Phone Jack</td>
<td>Same as J101</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S601</td>
<td>Not Used</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S603 to S604</td>
<td>Output Switch</td>
<td>Spdt, 3 amp, 125 volts a-c</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Δ Symbol part designation, if any.

* Style or other applicable designation, if any.
<table>
<thead>
<tr>
<th>SYMBOL DESIGNATION</th>
<th>FUNCTION</th>
<th>DESCRIPTION</th>
<th>NAVY TYPE DESIGN.</th>
<th>NAVY INV. OR SPEC. NUMBER</th>
<th>MFR. DESIGN.</th>
<th>CONTRACTOR'S DRAWING AND PART NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>J701</td>
<td>Not Used</td>
<td></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>K-7878678</td>
</tr>
<tr>
<td>P702</td>
<td>Power Cable Plug</td>
<td>4-pin plug, included in W703</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>F703</td>
<td>Power Cable Plug (3 used)</td>
<td>Same as P702 except included in W704, W705, W706</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>P704</td>
<td>Power Cable Plug (3 used)</td>
<td>Same as P702 except included in W704, W705, W706</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>H701</td>
<td>Coupling Nut</td>
<td>Included with W703</td>
<td>-</td>
<td>N.A.P. Pt.No. 213017-4</td>
<td>14</td>
<td>K-7878770-P1</td>
</tr>
<tr>
<td>H702</td>
<td>Ferrule</td>
<td></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>K-7878221-P1</td>
</tr>
<tr>
<td>W701</td>
<td>Not Used</td>
<td></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>K-7878804</td>
</tr>
<tr>
<td>W702</td>
<td>Cordage</td>
<td>4-conductor cable, included in W703, W704, W705, W706</td>
<td>-</td>
<td>-</td>
<td>15</td>
<td>K-7878804</td>
</tr>
<tr>
<td>W703</td>
<td>Power Cable</td>
<td>Includes P702, H701, H702, W702</td>
<td>-</td>
<td>-</td>
<td>6</td>
<td>M-7465168-P2</td>
</tr>
<tr>
<td>W704</td>
<td>Power Cable</td>
<td>Includes P703, P704, W702</td>
<td>-</td>
<td>-</td>
<td>6</td>
<td>M-7465168-P3</td>
</tr>
<tr>
<td>W705</td>
<td>Power Cable</td>
<td>Same as W704</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>W706</td>
<td>Power Cable</td>
<td>Same as W704</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

Δ Symbol part designation, if any.

✈ Style or other applicable designation, if any.
<table>
<thead>
<tr>
<th>Navy Type Number</th>
<th>Major Units</th>
<th>Symbol Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>CG-46115</td>
<td>Receiver (200-1500 kc)</td>
<td>101 to 199</td>
</tr>
<tr>
<td>CG-46116</td>
<td>Receiver (1500-9000 kc)</td>
<td>201 to 299</td>
</tr>
<tr>
<td>CG-46117</td>
<td>Receiver (7000-27,000 kc)</td>
<td>301 to 399</td>
</tr>
<tr>
<td>CG-46128</td>
<td>Receiver Rack</td>
<td>601 to 699</td>
</tr>
<tr>
<td>CG-62028</td>
<td>Junction Box</td>
<td>501 to 599</td>
</tr>
<tr>
<td>None</td>
<td>Cable M-7465168-P2 and 3</td>
<td>701 to 799</td>
</tr>
</tbody>
</table>
## OPERATING SPARE PARTS

### FOR

**NAVY MODEL RAX-1 AIRCRAFT RADIO RECEIVING EQUIPMENT**

<table>
<thead>
<tr>
<th>SYMBOL NO.</th>
<th>ENVELOPE NO. OR BOX LETTER</th>
<th>QUANTITY</th>
<th>G.E. DRAWING AND PART NUMBER</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>C106</td>
<td>2</td>
<td>1</td>
<td>K-787769-P4</td>
<td>Paper, 0.05 mfd ±10%, 400 volts d-c working</td>
</tr>
<tr>
<td>C107</td>
<td>3</td>
<td>1</td>
<td>K-787769-P1</td>
<td>Paper, 0.01 mfd ±10%, 600 volts d-c working</td>
</tr>
<tr>
<td>C108</td>
<td>4</td>
<td>1</td>
<td>M-7463969-P8</td>
<td>Mica, 0.00005 mfd ±10%, 500 volts d-c working</td>
</tr>
<tr>
<td>C110</td>
<td>5</td>
<td>1</td>
<td>M-7463969-P3</td>
<td>Mica, 0.00001 mfd ±10%, 500 volts d-c working</td>
</tr>
<tr>
<td>C111</td>
<td>6</td>
<td>1</td>
<td>P-7762455-P27</td>
<td>Mica, 0.0006 mfd ±10%, 300 volts d-c working</td>
</tr>
<tr>
<td>C112</td>
<td>2</td>
<td>1</td>
<td>Same as C106</td>
<td>Mica, 2250 mfd ±5%, 250 volts d-c working</td>
</tr>
<tr>
<td>C117</td>
<td>7</td>
<td>1</td>
<td>K-7877485-P3</td>
<td>Mica, 0.00007 mfd ±10%, 500 volts d-c working</td>
</tr>
<tr>
<td>C118</td>
<td>4</td>
<td>1</td>
<td>Same as C108</td>
<td>Mica, 0.000025 mfd ±10%, 500 volts d-c working</td>
</tr>
<tr>
<td>C119</td>
<td>1</td>
<td>1</td>
<td>M-7463969-P9</td>
<td>Ceramic, 15 mfd ±5%, 500 volts d-c working</td>
</tr>
<tr>
<td>C120</td>
<td>1</td>
<td>1</td>
<td>Same as C119</td>
<td>Mica, 500 mfd ±10%, 250 volts d-c working</td>
</tr>
<tr>
<td>C122</td>
<td>8</td>
<td>1</td>
<td>M-7463969-P5</td>
<td>Mica, 30 mfd ±5%, 250 volts d-c working</td>
</tr>
<tr>
<td>C123</td>
<td>6</td>
<td>1</td>
<td>Same as C111</td>
<td>Mica, 50 mfd ±5%, 250 volts d-c working</td>
</tr>
<tr>
<td>C124</td>
<td>9</td>
<td>1</td>
<td>M-7463969-P11</td>
<td>Ceramic, 15 mfd ±5%, 250 volts d-c working</td>
</tr>
<tr>
<td>C125</td>
<td>2</td>
<td>1</td>
<td>Same as C106</td>
<td>Mica, 730 mfd ±0.9%, 250 volts d-c working</td>
</tr>
<tr>
<td>C126</td>
<td>4</td>
<td>1</td>
<td>Same as C108</td>
<td>Mica, 1100 mfd ±0.5%, 250 volts d-c working</td>
</tr>
<tr>
<td>C132</td>
<td>10</td>
<td>1</td>
<td>K-7877485-P2</td>
<td>Mica, 100 mfd ±5%, 250 volts d-c working</td>
</tr>
<tr>
<td>C134</td>
<td>11</td>
<td>1</td>
<td>K-7877485-P16</td>
<td>Mica, 375 mfd ±5%, 250 volts d-c working</td>
</tr>
<tr>
<td>C135</td>
<td>12</td>
<td>1</td>
<td>K-7877485-P20</td>
<td>Mica, 900 mfd ±5%, 250 volts d-c working</td>
</tr>
<tr>
<td>C136</td>
<td>10</td>
<td>1</td>
<td>Same as C132</td>
<td>Electrolytic, 3 - 16 mfd +75%, -10%, 250 volts d-c working. Three separate sections.</td>
</tr>
<tr>
<td>C138</td>
<td>2</td>
<td>1</td>
<td>Same as C106</td>
<td>-</td>
</tr>
<tr>
<td>C139</td>
<td>11</td>
<td>1</td>
<td>Same as C134</td>
<td>-</td>
</tr>
<tr>
<td>C140</td>
<td>13</td>
<td>1</td>
<td>K-7877485-P17</td>
<td>-</td>
</tr>
<tr>
<td>C142</td>
<td>14</td>
<td>1</td>
<td>K-7877485-P10</td>
<td>-</td>
</tr>
<tr>
<td>C144</td>
<td>2</td>
<td>1</td>
<td>Same as C106</td>
<td>-</td>
</tr>
<tr>
<td>C145</td>
<td>2</td>
<td>1</td>
<td>Same as C106</td>
<td>-</td>
</tr>
<tr>
<td>C146</td>
<td>15</td>
<td>1</td>
<td>Same as C140</td>
<td>-</td>
</tr>
<tr>
<td>C147</td>
<td>15</td>
<td>1</td>
<td>K-7877485-P13</td>
<td>-</td>
</tr>
<tr>
<td>C148</td>
<td>16</td>
<td>1</td>
<td>K-7877485-P9</td>
<td>-</td>
</tr>
<tr>
<td>C149</td>
<td>15</td>
<td>1</td>
<td>Same as C147</td>
<td>-</td>
</tr>
<tr>
<td>C150</td>
<td>17</td>
<td>1</td>
<td>K-7877485-P37</td>
<td>-</td>
</tr>
<tr>
<td>C151</td>
<td>2</td>
<td>1</td>
<td>Same as C106</td>
<td>-</td>
</tr>
<tr>
<td>C152</td>
<td>18</td>
<td>1</td>
<td>K-7877485-P39</td>
<td>-</td>
</tr>
<tr>
<td>C153</td>
<td>18</td>
<td>1</td>
<td>Same as C152</td>
<td>-</td>
</tr>
<tr>
<td>C154</td>
<td>6</td>
<td>1</td>
<td>Same as C111</td>
<td>-</td>
</tr>
<tr>
<td>C155</td>
<td>6</td>
<td>1</td>
<td>Same as C111</td>
<td>-</td>
</tr>
<tr>
<td>C157</td>
<td>3</td>
<td>1</td>
<td>Same as C107</td>
<td>-</td>
</tr>
<tr>
<td>C159</td>
<td>6</td>
<td>1</td>
<td>Same as C111</td>
<td>-</td>
</tr>
<tr>
<td>C160</td>
<td>A</td>
<td>1</td>
<td>K-7876911</td>
<td>-</td>
</tr>
<tr>
<td>C161</td>
<td>4</td>
<td>1</td>
<td>Same as C108</td>
<td>-</td>
</tr>
<tr>
<td>C162</td>
<td>15</td>
<td>1</td>
<td>Same as C187</td>
<td>-</td>
</tr>
<tr>
<td>C163</td>
<td>19</td>
<td>1</td>
<td>K-7877485-P30</td>
<td>-</td>
</tr>
<tr>
<td>C164</td>
<td>6</td>
<td>1</td>
<td>Same as C111</td>
<td>-</td>
</tr>
<tr>
<td>C165</td>
<td>20</td>
<td>1</td>
<td>K-7877485-P40</td>
<td>-</td>
</tr>
<tr>
<td>C166</td>
<td>21</td>
<td>1</td>
<td>K-7877485-P41</td>
<td>-</td>
</tr>
<tr>
<td>C167</td>
<td>6</td>
<td>1</td>
<td>Same as C111</td>
<td>-</td>
</tr>
<tr>
<td>C168</td>
<td>6</td>
<td>1</td>
<td>Same as C111</td>
<td>-</td>
</tr>
<tr>
<td>C169</td>
<td>2</td>
<td>1</td>
<td>Same as C106</td>
<td>-</td>
</tr>
<tr>
<td>C170</td>
<td>6</td>
<td>1</td>
<td>Same as C111</td>
<td>-</td>
</tr>
<tr>
<td>C171</td>
<td>22</td>
<td>1</td>
<td>M-7463969-P15</td>
<td>-</td>
</tr>
<tr>
<td>C172</td>
<td>23</td>
<td>1</td>
<td>M-7463969-P16</td>
<td>Mica, 0.00004 mfd ±10%, 500 volts d-c working</td>
</tr>
<tr>
<td>C173</td>
<td>B</td>
<td>1</td>
<td>M-7464514-P4</td>
<td>Paper, 0.01 mfd ±10%, 600 volts d-c working</td>
</tr>
<tr>
<td>C176</td>
<td>0</td>
<td>1</td>
<td>M-7464514-P3</td>
<td>Paper, 0.025 mfd ±10%, -3%, 600 volts d-c working</td>
</tr>
<tr>
<td>C177</td>
<td>D</td>
<td>1</td>
<td>K-7877210-P1</td>
<td>Electrolytic, 50 mfd ±100%, ±10%, 25 volts d-c working</td>
</tr>
<tr>
<td>C178</td>
<td>24</td>
<td>1</td>
<td>P-7762455-P25</td>
<td>Mica, 0.01 mfd ±10%, 300 volts d-c working</td>
</tr>
<tr>
<td>C179</td>
<td>6</td>
<td>1</td>
<td>Same as C111</td>
<td>Mica, 0.0025 mfd ±10%, 500 volts d-c working</td>
</tr>
<tr>
<td>C180</td>
<td>25</td>
<td>1</td>
<td>M-7464287-P23</td>
<td>Electrolytic, 25 mfd ±100%, ±10%, 50 volts d-c working</td>
</tr>
<tr>
<td>C183</td>
<td>25</td>
<td>1</td>
<td>Same as C180</td>
<td>Mica, 0.0001 mfd ±10%, 500 volts d-c working</td>
</tr>
<tr>
<td>C184</td>
<td>E</td>
<td>1</td>
<td>K-7877443</td>
<td>-</td>
</tr>
<tr>
<td>C191</td>
<td>26</td>
<td>1</td>
<td>M-7463969-P10</td>
<td>-</td>
</tr>
<tr>
<td>SYMBOL NO.</td>
<td>ENVELOPE NO. OR BOX LETTER</td>
<td>QUANTITY</td>
<td>G-E. DRAWING AND PART NUMBER</td>
<td>DESCRIPTION</td>
</tr>
<tr>
<td>------------</td>
<td>---------------------------</td>
<td>----------</td>
<td>-----------------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>C192</td>
<td>26</td>
<td></td>
<td>Same as C191</td>
<td></td>
</tr>
<tr>
<td>C193</td>
<td>8</td>
<td></td>
<td>Same as C117</td>
<td></td>
</tr>
<tr>
<td>C195</td>
<td>8</td>
<td></td>
<td>Same as C122</td>
<td></td>
</tr>
<tr>
<td>C196</td>
<td>8</td>
<td></td>
<td>Same as C122</td>
<td></td>
</tr>
<tr>
<td>C198</td>
<td>9</td>
<td></td>
<td>Same as C122</td>
<td></td>
</tr>
<tr>
<td>C201</td>
<td>4</td>
<td></td>
<td>Same as C106</td>
<td></td>
</tr>
<tr>
<td>C205</td>
<td>26</td>
<td></td>
<td>Same as C191</td>
<td></td>
</tr>
<tr>
<td>C207</td>
<td>8</td>
<td></td>
<td>Same as C122</td>
<td></td>
</tr>
<tr>
<td>C210</td>
<td>6</td>
<td></td>
<td>Same as C111</td>
<td></td>
</tr>
<tr>
<td>C211</td>
<td>6</td>
<td></td>
<td>Same as C111</td>
<td></td>
</tr>
<tr>
<td>C212</td>
<td>6</td>
<td></td>
<td>Same as C111</td>
<td></td>
</tr>
<tr>
<td>C217</td>
<td>4</td>
<td></td>
<td>Same as C106</td>
<td></td>
</tr>
<tr>
<td>C218</td>
<td>27</td>
<td></td>
<td>M-7454875-P21</td>
<td></td>
</tr>
<tr>
<td>C219</td>
<td>26</td>
<td></td>
<td>Same as C191</td>
<td></td>
</tr>
<tr>
<td>C220</td>
<td>28</td>
<td></td>
<td>P-7762455-P31</td>
<td></td>
</tr>
<tr>
<td>C221</td>
<td>28</td>
<td></td>
<td>Same as C220</td>
<td></td>
</tr>
<tr>
<td>C222</td>
<td>D</td>
<td></td>
<td>Same as C177</td>
<td></td>
</tr>
<tr>
<td>C227</td>
<td>4</td>
<td></td>
<td>Same as C106</td>
<td></td>
</tr>
<tr>
<td>C228</td>
<td>28</td>
<td></td>
<td>Same as C220</td>
<td></td>
</tr>
<tr>
<td>C229</td>
<td>26</td>
<td></td>
<td>Same as C191</td>
<td></td>
</tr>
<tr>
<td>C230</td>
<td>6</td>
<td></td>
<td>Same as C111</td>
<td></td>
</tr>
<tr>
<td>C231</td>
<td>28</td>
<td></td>
<td>Same as C220</td>
<td></td>
</tr>
<tr>
<td>C232</td>
<td>6</td>
<td></td>
<td>Same as C111</td>
<td></td>
</tr>
<tr>
<td>C233</td>
<td>13</td>
<td></td>
<td>Same as C140</td>
<td></td>
</tr>
<tr>
<td>C234</td>
<td>23</td>
<td></td>
<td>Same as C172</td>
<td></td>
</tr>
<tr>
<td>C235</td>
<td>29</td>
<td></td>
<td>K-7877485-P38</td>
<td>Mica, 9500 mmfd ±2.5%, 300 volts d-c working</td>
</tr>
<tr>
<td>C236</td>
<td>29</td>
<td></td>
<td>Same as C235</td>
<td></td>
</tr>
<tr>
<td>C237</td>
<td>6</td>
<td></td>
<td>Same as C111</td>
<td></td>
</tr>
<tr>
<td>C238</td>
<td>30</td>
<td></td>
<td>K-7877141-P3</td>
<td>Ceramic, 25 mmfd ±5%, 500 volts d-c working</td>
</tr>
<tr>
<td>C240</td>
<td>6</td>
<td></td>
<td>Same as C111</td>
<td></td>
</tr>
<tr>
<td>C242</td>
<td>28</td>
<td></td>
<td>Same as C220</td>
<td></td>
</tr>
<tr>
<td>C244</td>
<td>27</td>
<td></td>
<td>Same as C218</td>
<td></td>
</tr>
<tr>
<td>C246</td>
<td>31</td>
<td></td>
<td>K-7877485-P21</td>
<td>Mica, 40 mmfd ±5%, 250 volts d-c working</td>
</tr>
<tr>
<td>C247</td>
<td>2</td>
<td></td>
<td>Same as C106</td>
<td></td>
</tr>
<tr>
<td>C248</td>
<td>23</td>
<td></td>
<td>Same as C172</td>
<td></td>
</tr>
<tr>
<td>C249</td>
<td>13</td>
<td></td>
<td>Same as C140</td>
<td></td>
</tr>
<tr>
<td>C251</td>
<td>32</td>
<td></td>
<td>K-7877485-P32</td>
<td>Mica, 230 mmfd ±0.5%, 250 volts d-c working</td>
</tr>
<tr>
<td>C252</td>
<td>10</td>
<td></td>
<td>Same as C132</td>
<td></td>
</tr>
<tr>
<td>C253</td>
<td>6</td>
<td></td>
<td>Same as C111</td>
<td></td>
</tr>
<tr>
<td>C254</td>
<td>33</td>
<td></td>
<td>M-7463969-P4</td>
<td>Mica, 0.00002 mfd ±1.0%, 500 volts d-c working</td>
</tr>
<tr>
<td>C255</td>
<td>28</td>
<td></td>
<td>Same as C220</td>
<td></td>
</tr>
<tr>
<td>C256</td>
<td>F</td>
<td></td>
<td>K-7878242</td>
<td>Electrolytic, 12-12 mfd ±100%, -10%, 50 volts d-c working. Two separate sections.</td>
</tr>
<tr>
<td>C257</td>
<td>11</td>
<td></td>
<td>Same as C134</td>
<td></td>
</tr>
<tr>
<td>C258</td>
<td>11</td>
<td></td>
<td>Same as C134</td>
<td></td>
</tr>
<tr>
<td>C259</td>
<td>3</td>
<td></td>
<td>Same as C107</td>
<td></td>
</tr>
<tr>
<td>C260</td>
<td>28</td>
<td></td>
<td>Same as C220</td>
<td></td>
</tr>
<tr>
<td>C261</td>
<td>2</td>
<td></td>
<td>Same as C106</td>
<td></td>
</tr>
<tr>
<td>C262</td>
<td>6</td>
<td></td>
<td>Same as C111</td>
<td></td>
</tr>
<tr>
<td>C263</td>
<td>6</td>
<td></td>
<td>Same as C111</td>
<td></td>
</tr>
<tr>
<td>C264</td>
<td>A</td>
<td></td>
<td>Same as C160</td>
<td></td>
</tr>
<tr>
<td>C265</td>
<td>28</td>
<td></td>
<td>Same as C220</td>
<td></td>
</tr>
<tr>
<td>C266</td>
<td>6</td>
<td></td>
<td>Same as C111</td>
<td></td>
</tr>
<tr>
<td>C267</td>
<td>28</td>
<td></td>
<td>Same as C220</td>
<td></td>
</tr>
<tr>
<td>C268</td>
<td>11</td>
<td></td>
<td>Same as C134</td>
<td></td>
</tr>
<tr>
<td>C269</td>
<td>34</td>
<td></td>
<td>K-7877485-P29</td>
<td>Mica, 560 mmfd ±5%, 250 volts d-c working</td>
</tr>
<tr>
<td>C270</td>
<td>6</td>
<td></td>
<td>Same as C111</td>
<td></td>
</tr>
<tr>
<td>C271</td>
<td>6</td>
<td></td>
<td>Same as C111</td>
<td></td>
</tr>
<tr>
<td>C272</td>
<td>5</td>
<td></td>
<td>Same as C110</td>
<td></td>
</tr>
<tr>
<td>C273</td>
<td>28</td>
<td></td>
<td>Same as C220</td>
<td></td>
</tr>
<tr>
<td>C274</td>
<td>6</td>
<td></td>
<td>Same as C111</td>
<td></td>
</tr>
<tr>
<td>SYMBOL NO.</td>
<td>ENVELOPE NO. OR BOX LETTER</td>
<td>QUANTITY</td>
<td>G.E. DRAWING AND PART NUMBER</td>
<td>DESCRIPTION</td>
</tr>
<tr>
<td>------------</td>
<td>---------------------------</td>
<td>----------</td>
<td>----------------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>C275</td>
<td></td>
<td>28</td>
<td>Same as C220</td>
<td></td>
</tr>
<tr>
<td>C276</td>
<td></td>
<td>35</td>
<td>M-7463969-P12</td>
<td>Mica, 0.0002 mfd ±10%, 500 volts d-c working</td>
</tr>
<tr>
<td>C277</td>
<td></td>
<td>26</td>
<td>Same as C191</td>
<td></td>
</tr>
<tr>
<td>C278</td>
<td></td>
<td>36</td>
<td>K-7877485-P18</td>
<td>Mica, 525 mmfd ±5%, 250 volts d-c working</td>
</tr>
<tr>
<td>C279</td>
<td></td>
<td>37</td>
<td>K-7877485-P25</td>
<td>Mica, 215 mmfd ±5%, 250 volts d-c working</td>
</tr>
<tr>
<td>C280</td>
<td></td>
<td>38</td>
<td>M-7463969-P14</td>
<td>Mica, 0.0003 mfd ±10%, 500 volts d-c working</td>
</tr>
<tr>
<td>C281</td>
<td></td>
<td>6</td>
<td>Same as C111</td>
<td>Mica, 0.0025 mfd ±10%, 500 volts d-c working</td>
</tr>
<tr>
<td>C282</td>
<td></td>
<td>39</td>
<td>P-7762455-P25</td>
<td></td>
</tr>
<tr>
<td>C283</td>
<td></td>
<td>5</td>
<td>Same as C110</td>
<td></td>
</tr>
<tr>
<td>C284</td>
<td></td>
<td>28</td>
<td>Same as C220</td>
<td></td>
</tr>
<tr>
<td>C285</td>
<td></td>
<td>5</td>
<td>Same as C110</td>
<td></td>
</tr>
<tr>
<td>C286</td>
<td></td>
<td>4</td>
<td>Same as C108</td>
<td></td>
</tr>
<tr>
<td>C287</td>
<td></td>
<td>26</td>
<td>Same as C191</td>
<td></td>
</tr>
<tr>
<td>C288</td>
<td></td>
<td>40</td>
<td>K-7877485-P12</td>
<td>Mica, 612 mmfd ±0.75%, 250 volts d-c working</td>
</tr>
<tr>
<td>C289</td>
<td></td>
<td>14</td>
<td>Same as C142</td>
<td></td>
</tr>
<tr>
<td>C290</td>
<td></td>
<td>41</td>
<td>K-7877485-P7</td>
<td>Mica, 1195 mmfd ±1.5%, 250 volts d-c working</td>
</tr>
<tr>
<td>C291</td>
<td></td>
<td>42</td>
<td>K-7877485-P6</td>
<td>Mica, 2390 mmfd ±5%, 250 volts d-c working</td>
</tr>
<tr>
<td>C292</td>
<td></td>
<td>6</td>
<td>Same as C111</td>
<td></td>
</tr>
<tr>
<td>C293</td>
<td></td>
<td>28</td>
<td>Same as C220</td>
<td></td>
</tr>
<tr>
<td>C295</td>
<td></td>
<td>26</td>
<td>Same as C191</td>
<td></td>
</tr>
<tr>
<td>C296</td>
<td></td>
<td>5</td>
<td>Same as C110</td>
<td></td>
</tr>
<tr>
<td>C297</td>
<td></td>
<td>42</td>
<td>Same as C291</td>
<td></td>
</tr>
<tr>
<td>C298</td>
<td></td>
<td>33</td>
<td>Same as C291</td>
<td></td>
</tr>
<tr>
<td>C307</td>
<td></td>
<td>6</td>
<td>Same as C254</td>
<td></td>
</tr>
<tr>
<td>C311</td>
<td></td>
<td>6</td>
<td>Same as C111</td>
<td></td>
</tr>
<tr>
<td>C312</td>
<td></td>
<td>6</td>
<td>Same as C111</td>
<td></td>
</tr>
<tr>
<td>C313</td>
<td></td>
<td>6</td>
<td>Same as C111</td>
<td></td>
</tr>
<tr>
<td>C319</td>
<td></td>
<td>12</td>
<td>Same as C135</td>
<td></td>
</tr>
<tr>
<td>C321</td>
<td></td>
<td>P</td>
<td>Same as C256</td>
<td></td>
</tr>
<tr>
<td>C322</td>
<td></td>
<td>6</td>
<td>Same as C111</td>
<td></td>
</tr>
<tr>
<td>C323</td>
<td></td>
<td>6</td>
<td>Same as C111</td>
<td></td>
</tr>
<tr>
<td>C324</td>
<td></td>
<td>5</td>
<td>Same as C110</td>
<td></td>
</tr>
<tr>
<td>C330</td>
<td></td>
<td>22</td>
<td>Same as C171</td>
<td></td>
</tr>
<tr>
<td>C331</td>
<td></td>
<td>12</td>
<td>Same as C135</td>
<td></td>
</tr>
<tr>
<td>C333</td>
<td></td>
<td>6</td>
<td>Same as C111</td>
<td></td>
</tr>
<tr>
<td>C334</td>
<td></td>
<td>6</td>
<td>Same as C111</td>
<td></td>
</tr>
<tr>
<td>C335</td>
<td></td>
<td>6</td>
<td>Same as C111</td>
<td></td>
</tr>
<tr>
<td>C336</td>
<td></td>
<td>43</td>
<td>K-7877485-P14</td>
<td>Mica, 25 mmfd ±5%, 250 volts d-c working</td>
</tr>
<tr>
<td>C337</td>
<td></td>
<td>11</td>
<td>Same as C134</td>
<td></td>
</tr>
<tr>
<td>C338</td>
<td></td>
<td>44</td>
<td>K-7877485-P27</td>
<td>Mica, 300 mmfd ±5%, 250 volts d-c working</td>
</tr>
<tr>
<td>C339</td>
<td></td>
<td>44</td>
<td>Same as C338</td>
<td></td>
</tr>
<tr>
<td>C340</td>
<td></td>
<td>11</td>
<td>Same as C134</td>
<td></td>
</tr>
<tr>
<td>C341</td>
<td></td>
<td>43</td>
<td>Same as C336</td>
<td></td>
</tr>
<tr>
<td>C343</td>
<td></td>
<td>45</td>
<td>K-7877485-P42</td>
<td>Mica, 200 mmfd ±0.5%, 250 volts d-c working</td>
</tr>
<tr>
<td>C344</td>
<td></td>
<td>46</td>
<td>K-7877141-P5</td>
<td>Ceramic, 30 mmfd ±5%, 500 volts d-c working</td>
</tr>
<tr>
<td>C345</td>
<td></td>
<td>6</td>
<td>Same as C111</td>
<td></td>
</tr>
<tr>
<td>C346</td>
<td></td>
<td>47</td>
<td>K-7877141-P4</td>
<td>Ceramic, 26 mmfd ±5%, 500 volts d-c working</td>
</tr>
<tr>
<td>C348</td>
<td></td>
<td>31</td>
<td>Same as C246</td>
<td></td>
</tr>
<tr>
<td>C350</td>
<td></td>
<td>48</td>
<td>K-7877485-P16</td>
<td>Mica, 70 mmfd ±2.5%, 250 volts d-c working</td>
</tr>
<tr>
<td>C352</td>
<td></td>
<td>43</td>
<td>Same as C336</td>
<td></td>
</tr>
<tr>
<td>C354</td>
<td></td>
<td>49</td>
<td>K-7877141-P1</td>
<td>Ceramic, 5 mmfd ±10%, 500 volts d-c working</td>
</tr>
<tr>
<td>C358</td>
<td></td>
<td>22</td>
<td>Same as C171</td>
<td></td>
</tr>
<tr>
<td>C359</td>
<td></td>
<td>28</td>
<td>Same as C220</td>
<td></td>
</tr>
<tr>
<td>C360</td>
<td></td>
<td>6</td>
<td>Same as C111</td>
<td></td>
</tr>
<tr>
<td>C361</td>
<td></td>
<td>44</td>
<td>Same as C338</td>
<td></td>
</tr>
<tr>
<td>C362</td>
<td></td>
<td>44</td>
<td>Same as C338</td>
<td></td>
</tr>
<tr>
<td>C363</td>
<td></td>
<td>28</td>
<td>Same as C220</td>
<td></td>
</tr>
<tr>
<td>C364</td>
<td></td>
<td>6</td>
<td>Same as C111</td>
<td></td>
</tr>
<tr>
<td>C365</td>
<td></td>
<td>6</td>
<td>Same as C111</td>
<td></td>
</tr>
<tr>
<td>C367</td>
<td></td>
<td>6</td>
<td>Same as C111</td>
<td></td>
</tr>
<tr>
<td>C368</td>
<td></td>
<td>A</td>
<td>Same as C160</td>
<td></td>
</tr>
<tr>
<td>SYMBOL NO.</td>
<td>ENVELOPE NO. OR BOX LETTER</td>
<td>QUANTITY</td>
<td>G.E. DRAWING AND PART NUMBER</td>
<td>DESCRIPTION</td>
</tr>
<tr>
<td>------------</td>
<td>----------------------------</td>
<td>----------</td>
<td>------------------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>C370</td>
<td>28</td>
<td>-</td>
<td>Same as C220</td>
<td>-</td>
</tr>
<tr>
<td>C371</td>
<td>28</td>
<td>-</td>
<td>Same as C220</td>
<td>-</td>
</tr>
<tr>
<td>C372</td>
<td>6</td>
<td>-</td>
<td>Same as C111</td>
<td>-</td>
</tr>
<tr>
<td>C373</td>
<td>6</td>
<td>-</td>
<td>Same as C111</td>
<td>-</td>
</tr>
<tr>
<td>C374</td>
<td>D</td>
<td>-</td>
<td>Same as C177</td>
<td>-</td>
</tr>
<tr>
<td>C375</td>
<td>28</td>
<td>-</td>
<td>Same as C220</td>
<td>-</td>
</tr>
<tr>
<td>C376</td>
<td>6</td>
<td>-</td>
<td>Same as C111</td>
<td>-</td>
</tr>
<tr>
<td>C377</td>
<td>28</td>
<td>-</td>
<td>Same as C220</td>
<td>-</td>
</tr>
<tr>
<td>C378</td>
<td>50</td>
<td>1</td>
<td>K-7877485-P48</td>
<td>Mica, 350 mmfd ±10%, 250 volts d-c working</td>
</tr>
<tr>
<td>C379</td>
<td>50</td>
<td>-</td>
<td>Same as C378</td>
<td>-</td>
</tr>
<tr>
<td>C380</td>
<td>6</td>
<td>-</td>
<td>Same as C111</td>
<td>-</td>
</tr>
<tr>
<td>C381</td>
<td>51</td>
<td>1</td>
<td>K-7877485-P28</td>
<td>Mica, 400 mmfd ±5%, 250 volts d-c working</td>
</tr>
<tr>
<td>C382</td>
<td>44</td>
<td>-</td>
<td>Same as C338</td>
<td>-</td>
</tr>
<tr>
<td>C383</td>
<td>4</td>
<td>-</td>
<td>Same as C108</td>
<td>-</td>
</tr>
<tr>
<td>C384</td>
<td>52</td>
<td>-</td>
<td>K-7877485-P24</td>
<td>Mica, 175 mmfd ±5%, 250 volts d-c working</td>
</tr>
<tr>
<td>C385</td>
<td>6</td>
<td>-</td>
<td>Same as C111</td>
<td>-</td>
</tr>
<tr>
<td>C386</td>
<td>17</td>
<td>-</td>
<td>Same as C150</td>
<td>-</td>
</tr>
<tr>
<td>C387</td>
<td>53</td>
<td>1</td>
<td>K-7464527-P25</td>
<td>Mica, 0.004 mmfd ±10%, 300 volts d-c working</td>
</tr>
<tr>
<td>C388</td>
<td>6</td>
<td>-</td>
<td>Same as C111</td>
<td>-</td>
</tr>
<tr>
<td>C389</td>
<td>26</td>
<td>-</td>
<td>Same as C191</td>
<td>-</td>
</tr>
<tr>
<td>C390</td>
<td>6</td>
<td>-</td>
<td>Same as C111</td>
<td>-</td>
</tr>
<tr>
<td>C391</td>
<td>54</td>
<td>1</td>
<td>K-7877485-P11</td>
<td>Mica, 690 mmfd ±0.5%, 250 volts d-c working</td>
</tr>
<tr>
<td>C392</td>
<td>55</td>
<td>1</td>
<td>K-7877485-P8</td>
<td>Mica, 1325 mmfd ±0.5%, 250 volts d-c working</td>
</tr>
<tr>
<td>C393</td>
<td>6</td>
<td>-</td>
<td>Same as C111</td>
<td>-</td>
</tr>
<tr>
<td>C395</td>
<td>6</td>
<td>-</td>
<td>Same as C111</td>
<td>-</td>
</tr>
<tr>
<td>C396</td>
<td>4</td>
<td>-</td>
<td>Same as C108</td>
<td>-</td>
</tr>
<tr>
<td>C397</td>
<td>56</td>
<td>1</td>
<td>K-7877485-P5</td>
<td>Mica, 1720 mmfd ±1%, 250 volts d-c working</td>
</tr>
<tr>
<td>C398</td>
<td>57</td>
<td>1</td>
<td>K-7877485-P2</td>
<td>Mica, 2450 mmfd ±1%, 250 volts d-c working</td>
</tr>
<tr>
<td>C399</td>
<td>57</td>
<td>-</td>
<td>Same as C397</td>
<td>-</td>
</tr>
<tr>
<td>C400</td>
<td>58</td>
<td>1</td>
<td>K-7877485-P1</td>
<td>Mica, 2600 mmfd ±1%, 250 volts d-c working</td>
</tr>
<tr>
<td>C401</td>
<td>56</td>
<td>-</td>
<td>Same as C397</td>
<td>-</td>
</tr>
<tr>
<td>C402</td>
<td>58</td>
<td>-</td>
<td>Same as C397</td>
<td>-</td>
</tr>
<tr>
<td>C403</td>
<td>22</td>
<td>-</td>
<td>Same as C171</td>
<td>-</td>
</tr>
<tr>
<td>C404</td>
<td>31</td>
<td>-</td>
<td>Same as C246</td>
<td>-</td>
</tr>
<tr>
<td>C405</td>
<td>13</td>
<td>-</td>
<td>Same as C140</td>
<td>-</td>
</tr>
<tr>
<td>C406</td>
<td>59</td>
<td>1</td>
<td>K-7877485-P23</td>
<td>Mica, 120 mmfd ±5%, 250 volts d-c working</td>
</tr>
<tr>
<td>C407</td>
<td>31</td>
<td>-</td>
<td>Same as C246</td>
<td>-</td>
</tr>
<tr>
<td>C408</td>
<td>12</td>
<td>-</td>
<td>Same as C135</td>
<td>-</td>
</tr>
<tr>
<td>C410</td>
<td>60</td>
<td>1</td>
<td>K-7877485-P22</td>
<td>Mica, 75 mmfd ±5%, 250 volts d-c working</td>
</tr>
<tr>
<td>C411</td>
<td>31</td>
<td>-</td>
<td>Same as C246</td>
<td>-</td>
</tr>
<tr>
<td>C412</td>
<td>12</td>
<td>-</td>
<td>Same as C135</td>
<td>-</td>
</tr>
<tr>
<td>C413</td>
<td>60</td>
<td>-</td>
<td>Same as C410</td>
<td>-</td>
</tr>
<tr>
<td>C414</td>
<td>2</td>
<td>-</td>
<td>Same as C106</td>
<td>-</td>
</tr>
<tr>
<td>C415</td>
<td>61</td>
<td>1</td>
<td>K-7877485-P19</td>
<td>Mica, 10 mmfd ±5%, 250 volts d-c working</td>
</tr>
<tr>
<td>C416</td>
<td>61</td>
<td>-</td>
<td>Same as C415</td>
<td>-</td>
</tr>
<tr>
<td>C417</td>
<td>27</td>
<td>-</td>
<td>Same as C218</td>
<td>-</td>
</tr>
<tr>
<td>C418</td>
<td>28</td>
<td>-</td>
<td>Same as C220</td>
<td>-</td>
</tr>
<tr>
<td>C419</td>
<td>28</td>
<td>-</td>
<td>Same as C220</td>
<td>-</td>
</tr>
<tr>
<td>C420</td>
<td>27</td>
<td>-</td>
<td>Same as C220</td>
<td>-</td>
</tr>
<tr>
<td>C422</td>
<td>28</td>
<td>-</td>
<td>Same as C220</td>
<td>-</td>
</tr>
<tr>
<td>C423</td>
<td>28</td>
<td>-</td>
<td>Same as C220</td>
<td>-</td>
</tr>
<tr>
<td>C424</td>
<td>27</td>
<td>-</td>
<td>Same as C220</td>
<td>-</td>
</tr>
<tr>
<td>C425</td>
<td>6</td>
<td>-</td>
<td>Same as C111</td>
<td>-</td>
</tr>
<tr>
<td>C426</td>
<td>6</td>
<td>-</td>
<td>Same as C111</td>
<td>-</td>
</tr>
<tr>
<td>P101</td>
<td>62</td>
<td>12</td>
<td>K-7871566</td>
<td>4 amp &quot;Littelfuse Laboratory&quot;</td>
</tr>
<tr>
<td>P201</td>
<td>62</td>
<td>-</td>
<td>Same as P101</td>
<td>-</td>
</tr>
<tr>
<td>P301</td>
<td>62</td>
<td>-</td>
<td>Same as P101</td>
<td>-</td>
</tr>
<tr>
<td>L103</td>
<td>60</td>
<td>1</td>
<td>K-7877090</td>
<td>350 turns of No. 28 AWG, DGR copper wire Universal wound with 2 crosses per turn on a 3/8-in diam No. 2008-B comp. form. Inductance: 2 microhenries ±5%</td>
</tr>
</tbody>
</table>
### Operating Spare Parts (Cont'd)

**FOR**

**NAVY MODEL RAX-1 AIRCRAFT RADIO RECEIVING EQUIPMENT**

<table>
<thead>
<tr>
<th>SYMBOL</th>
<th>ENVELOPE NO. OR BOX LETTER</th>
<th>QUANTITY</th>
<th>G-E DRAWING AND PART NUMBER</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>L104</td>
<td>H</td>
<td>1</td>
<td>K-7877075</td>
<td>0.5 henry, uJ82 amp d-c, 42 ohms d-c res. (Cat. No. 670302)</td>
</tr>
<tr>
<td>L108</td>
<td>K</td>
<td>1</td>
<td>M-7464808-G1</td>
<td>50 turns of 0.025-in. bare 0.033-in. DCO copper wire Universal wound with 2 crosses per turn on a 1/2-in. diam Isolantite form 2.48 henries, ±10%, 0.0075 amp d-c, 60 cycles (Cat. No. 67G794)</td>
</tr>
<tr>
<td>L109</td>
<td>L</td>
<td>1</td>
<td>K-7879066</td>
<td>150 turns of 0.0063-in. diam bare 0.009-in. diam ES copper wire Universal wound on a 0.560-in. diam No. 2020-B comp. form, tap at 675 turns (Crowley Type Al slug)</td>
</tr>
<tr>
<td>L205</td>
<td>G</td>
<td>-</td>
<td>Same as L103</td>
<td>-</td>
</tr>
<tr>
<td>L206</td>
<td>H</td>
<td>-</td>
<td>Same as L104</td>
<td>-</td>
</tr>
<tr>
<td>L207</td>
<td>J</td>
<td>-</td>
<td>Same as L105</td>
<td>-</td>
</tr>
<tr>
<td>L208</td>
<td>K</td>
<td>-</td>
<td>Same as L108</td>
<td>-</td>
</tr>
<tr>
<td>L210</td>
<td>M</td>
<td>1</td>
<td>P-7763160-G1</td>
<td>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</td>
</tr>
<tr>
<td>L211</td>
<td>K</td>
<td>-</td>
<td>Same as L108</td>
<td>-</td>
</tr>
<tr>
<td>L212</td>
<td>N</td>
<td>1</td>
<td>K-7877552</td>
<td>-</td>
</tr>
<tr>
<td>L214</td>
<td>K</td>
<td>-</td>
<td>Same as L108</td>
<td>-</td>
</tr>
<tr>
<td>L215</td>
<td>M</td>
<td>-</td>
<td>Same as L210</td>
<td>-</td>
</tr>
<tr>
<td>R102</td>
<td>63</td>
<td>1</td>
<td>P-7763599-P86</td>
<td>100,000 ohms ±10%, 1/2 watt</td>
</tr>
<tr>
<td>R103</td>
<td>64</td>
<td>1</td>
<td>P-7763599-P98</td>
<td>1.0 megaohms ±10%, 1/2 watt</td>
</tr>
<tr>
<td>R104</td>
<td>66</td>
<td>1</td>
<td>P-7763599-P156</td>
<td>750 ohms ±10%, 1/2 watt</td>
</tr>
<tr>
<td>R105</td>
<td>66</td>
<td>1</td>
<td>P-7763599-P78</td>
<td>22,000 ohms ±10%, 1/2 watt</td>
</tr>
<tr>
<td>R106</td>
<td>67</td>
<td>1</td>
<td>P-7763599-P75</td>
<td>12,000 ohms ±10%, 1/2 watt</td>
</tr>
<tr>
<td>R107</td>
<td>67</td>
<td>1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>R108</td>
<td>67</td>
<td>-</td>
<td>Same as R107</td>
<td>-</td>
</tr>
<tr>
<td>R109</td>
<td>68</td>
<td>1</td>
<td>P-7763599-P62</td>
<td>1000 ohms ±10%, 1/2 watt</td>
</tr>
<tr>
<td>R110</td>
<td>69</td>
<td>1</td>
<td>M-7464322-P1</td>
<td>Bradleyometer, 5000 ohms ±15%</td>
</tr>
<tr>
<td>R111</td>
<td>70</td>
<td>1</td>
<td>P-7763599-P63</td>
<td>1200 ohms ±10%, 1/2 watt</td>
</tr>
<tr>
<td>R126</td>
<td>70</td>
<td>1</td>
<td>P-7763599-P183</td>
<td>10,000 ohms ±5%, 1/2 watt</td>
</tr>
<tr>
<td>R127</td>
<td>71</td>
<td>1</td>
<td>P-7763599-P219</td>
<td>330,000 ohms ±10%, 1/2 watt</td>
</tr>
<tr>
<td>R128</td>
<td>72</td>
<td>1</td>
<td>P-7763599-P203</td>
<td>68,000 ohms ±5%, 1/2 watt</td>
</tr>
<tr>
<td>R129</td>
<td>73</td>
<td>1</td>
<td>P-7763599-P90</td>
<td>220,000 ohms ±10%, 1/2 watt</td>
</tr>
<tr>
<td>R130</td>
<td>74</td>
<td>1</td>
<td>P-7763599-P57</td>
<td>390 ohms ±10%, 1/2 watt</td>
</tr>
<tr>
<td>R131</td>
<td>75</td>
<td>1</td>
<td>P-7763599-P202</td>
<td>62,000 ohms ±5%, 1/2 watt</td>
</tr>
<tr>
<td>R132</td>
<td>75</td>
<td>-</td>
<td>Same as R107</td>
<td>-</td>
</tr>
<tr>
<td>R133</td>
<td>76</td>
<td>1</td>
<td>P-7763599-P88</td>
<td>150,000 ohms ±10%, 1/2 watt</td>
</tr>
<tr>
<td>R134</td>
<td>76</td>
<td>-</td>
<td>Same as R102</td>
<td>-</td>
</tr>
<tr>
<td>R135</td>
<td>76</td>
<td>-</td>
<td>Same as R105</td>
<td>-</td>
</tr>
<tr>
<td>R136</td>
<td>76</td>
<td>-</td>
<td>Same as R106</td>
<td>-</td>
</tr>
<tr>
<td>R154</td>
<td>77</td>
<td>1</td>
<td>P-7763600-P203</td>
<td>Bradleyometer, 20,000 ohms ±10% (panel) 800,000 ohms ±10% (rear) 68,000 ohms ±5%, 1 watt</td>
</tr>
<tr>
<td>R155</td>
<td>77</td>
<td>-</td>
<td>Same as R103</td>
<td>-</td>
</tr>
<tr>
<td>R157</td>
<td>78</td>
<td>1</td>
<td>P-7763600-P76</td>
<td>15,000 ohms ±10%, 1 watt</td>
</tr>
<tr>
<td>R158</td>
<td>78</td>
<td>-</td>
<td>Same as R107</td>
<td>-</td>
</tr>
<tr>
<td>R159</td>
<td>79</td>
<td>1</td>
<td>P-7763599-P94</td>
<td>470,000 ohms ±10%, 1/2 watt</td>
</tr>
<tr>
<td>R160</td>
<td>79</td>
<td>-</td>
<td>Same as R105</td>
<td>-</td>
</tr>
<tr>
<td>R161</td>
<td>80</td>
<td>1</td>
<td>P-7763599-P81</td>
<td>39,000 ohms ±10%, 1/2 watt</td>
</tr>
<tr>
<td>R162</td>
<td>81</td>
<td>1</td>
<td>P-7763599-P100</td>
<td>1.5 megaohms ±10%, 1/2 watt</td>
</tr>
<tr>
<td>R163</td>
<td>82</td>
<td>1</td>
<td>Same as R105</td>
<td>-</td>
</tr>
<tr>
<td>R164</td>
<td>82</td>
<td>1</td>
<td>P-7763599-P82</td>
<td>47,000 ohms ±10%, 1/2 watt</td>
</tr>
<tr>
<td>R165</td>
<td>83</td>
<td>1</td>
<td>P-7763599-P92</td>
<td>330,000 ohms ±10%, 1/2 watt</td>
</tr>
<tr>
<td>R166</td>
<td>84</td>
<td>1</td>
<td>P-7763600-P194</td>
<td>30,000 ohms ±5%, 1 watt</td>
</tr>
<tr>
<td>R167</td>
<td>84</td>
<td>1</td>
<td>Same as R103</td>
<td>-</td>
</tr>
<tr>
<td>SYMBOL NO.</td>
<td>ENVELOPE NO. OR BOX LETTER</td>
<td>QUANTITY</td>
<td>O.E. DRAWING AND PART NUMBER</td>
<td>DESCRIPTION</td>
</tr>
<tr>
<td>------------</td>
<td>-----------------------------</td>
<td>----------</td>
<td>-----------------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>R168</td>
<td>85</td>
<td>1</td>
<td>P-7763599-P152</td>
<td>510 ohms ±5%, 1/2 watt</td>
</tr>
<tr>
<td>R169</td>
<td>86</td>
<td>1</td>
<td>P-7763599-P56</td>
<td>330 ohms ±10%, 1/2 watt</td>
</tr>
<tr>
<td>R170</td>
<td>82</td>
<td>-</td>
<td>Same as R164</td>
<td>-</td>
</tr>
<tr>
<td>R177</td>
<td>87</td>
<td>1</td>
<td>P-7763600-P149</td>
<td>390 ohms ±5%, 1 watt</td>
</tr>
<tr>
<td>R178</td>
<td>85</td>
<td>-</td>
<td>Same as R168</td>
<td>-</td>
</tr>
<tr>
<td>R202</td>
<td>64</td>
<td>-</td>
<td>Same as R103</td>
<td>-</td>
</tr>
<tr>
<td>R203</td>
<td>88</td>
<td>1</td>
<td>P-7763599-P61</td>
<td>820 ohms ±10%, 1/2 watt</td>
</tr>
<tr>
<td>R204</td>
<td>89</td>
<td>1</td>
<td>P-7763599-P154</td>
<td>620 ohms ±5%, 1/2 watt</td>
</tr>
<tr>
<td>R205</td>
<td>90</td>
<td>1</td>
<td>P-7763599-P66</td>
<td>2200 ohms ±10%, 1/2 watt</td>
</tr>
<tr>
<td>R206</td>
<td>64</td>
<td>-</td>
<td>Same as R103</td>
<td>-</td>
</tr>
<tr>
<td>R207</td>
<td>91</td>
<td>1</td>
<td>P-7763599-P146</td>
<td>300 ohms ±5%, 1/2 watt</td>
</tr>
<tr>
<td>R208</td>
<td>92</td>
<td>1</td>
<td>P-7763599-P170</td>
<td>3000 ohms ±5%, 1/2 watt</td>
</tr>
<tr>
<td>R209</td>
<td>93</td>
<td>1</td>
<td>Same as R103</td>
<td>-</td>
</tr>
<tr>
<td>R210</td>
<td>87</td>
<td>-</td>
<td>Same as R177</td>
<td>-</td>
</tr>
<tr>
<td>R211</td>
<td>90</td>
<td>-</td>
<td>Same as R205</td>
<td>-</td>
</tr>
<tr>
<td>R212</td>
<td>64</td>
<td>-</td>
<td>Same as R103</td>
<td>-</td>
</tr>
<tr>
<td>R213</td>
<td>94</td>
<td>1</td>
<td>P-7763599-P147</td>
<td>330 ohms ±5%, 1/2 watt</td>
</tr>
<tr>
<td>R214</td>
<td>95</td>
<td>1</td>
<td>P-7763599-P197</td>
<td>39,000 ohms ±5%, 1/2 watt</td>
</tr>
<tr>
<td>R215</td>
<td>96</td>
<td>1</td>
<td>P-7763599-P185</td>
<td>12,000 ohms ±5%, 1/2 watt</td>
</tr>
<tr>
<td>R216</td>
<td>97</td>
<td>1</td>
<td>P-7763599-P200</td>
<td>51,000 ohms ±5%, 1/2 watt</td>
</tr>
<tr>
<td>R217</td>
<td>98</td>
<td>1</td>
<td>P-7763599-P199</td>
<td>47,000 ohms ±5%, 1/2 watt</td>
</tr>
<tr>
<td>R218</td>
<td>99</td>
<td>1</td>
<td>P-7763599-P187</td>
<td>15,000 ohms ±5%, 1/2 watt</td>
</tr>
<tr>
<td>R219</td>
<td>100</td>
<td>1</td>
<td>P-7763599-P209</td>
<td>120,000 ohms ±5%, 1/2 watt</td>
</tr>
<tr>
<td>R220</td>
<td>93</td>
<td>-</td>
<td>Same as R209</td>
<td>-</td>
</tr>
<tr>
<td>R221</td>
<td>82</td>
<td>-</td>
<td>Same as R164</td>
<td>-</td>
</tr>
<tr>
<td>R222</td>
<td>95</td>
<td>-</td>
<td>Same as R214</td>
<td>-</td>
</tr>
<tr>
<td>R223</td>
<td>101</td>
<td>1</td>
<td>P-7763599-P214</td>
<td>200,000 ohms ±5%, 1/2 watt</td>
</tr>
<tr>
<td>R224</td>
<td>91</td>
<td>-</td>
<td>Same as R207</td>
<td>-</td>
</tr>
<tr>
<td>R225</td>
<td>64</td>
<td>-</td>
<td>Same as R103</td>
<td>-</td>
</tr>
<tr>
<td>R226</td>
<td>102</td>
<td>1</td>
<td>P-7763600-P184</td>
<td>11,000 ohms ±5%, 1 watt</td>
</tr>
<tr>
<td>R227</td>
<td>90</td>
<td>-</td>
<td>Same as R205</td>
<td>-</td>
</tr>
<tr>
<td>R228</td>
<td>R</td>
<td>1</td>
<td>M-7464321-P2</td>
<td>Bradleymeter, 6250 ohms ±10% (panel)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>800,000 ohms ±10% (rear)</td>
</tr>
<tr>
<td>R229</td>
<td>90</td>
<td>-</td>
<td>Same as R205</td>
<td>-</td>
</tr>
<tr>
<td>R230</td>
<td>103</td>
<td>1</td>
<td>P-7763599-P205</td>
<td>82,000 ohms ±5%, 1/2 watt</td>
</tr>
<tr>
<td>R231</td>
<td>103</td>
<td>-</td>
<td>Same as R230</td>
<td>-</td>
</tr>
<tr>
<td>R232</td>
<td>85</td>
<td>-</td>
<td>Same as R168</td>
<td>-</td>
</tr>
<tr>
<td>R233</td>
<td>104</td>
<td>1</td>
<td>P-7763599-P223</td>
<td>470,000 ohms ±5%, 1/2 watt</td>
</tr>
<tr>
<td>R234</td>
<td>105</td>
<td>1</td>
<td>P-7763599-P192</td>
<td>24,000 ohms ±5%, 1/2 watt</td>
</tr>
<tr>
<td>R235</td>
<td>103</td>
<td>-</td>
<td>Same as R203</td>
<td>-</td>
</tr>
<tr>
<td>R236</td>
<td>95</td>
<td>-</td>
<td>Same as R214</td>
<td>-</td>
</tr>
<tr>
<td>R237</td>
<td>106</td>
<td>1</td>
<td>P-7763599-P218</td>
<td>300,000 ohms ±5%, 1/2 watt</td>
</tr>
<tr>
<td>R238</td>
<td>67</td>
<td>-</td>
<td>Same as R107</td>
<td>-</td>
</tr>
<tr>
<td>R239</td>
<td>91</td>
<td>-</td>
<td>Same as R207</td>
<td>-</td>
</tr>
<tr>
<td>R240</td>
<td>103</td>
<td>-</td>
<td>Same as R230</td>
<td>-</td>
</tr>
<tr>
<td>R241</td>
<td>96</td>
<td>-</td>
<td>Same as R215</td>
<td>-</td>
</tr>
<tr>
<td>R242</td>
<td>97</td>
<td>-</td>
<td>Same as R216</td>
<td>-</td>
</tr>
<tr>
<td>R243</td>
<td>107</td>
<td>1</td>
<td>P-7763599-P166</td>
<td>2000 ohms ±5%, 1/2 watt</td>
</tr>
<tr>
<td>R244</td>
<td>103</td>
<td>-</td>
<td>Same as R230</td>
<td>-</td>
</tr>
<tr>
<td>R245</td>
<td>98</td>
<td>-</td>
<td>Same as R217</td>
<td>-</td>
</tr>
<tr>
<td>R246</td>
<td>108</td>
<td>1</td>
<td>P-7763600-P195</td>
<td>33,000 ohms ±5%, 1 watt</td>
</tr>
<tr>
<td>R247</td>
<td>105</td>
<td>-</td>
<td>Same as R234</td>
<td>-</td>
</tr>
<tr>
<td>R248</td>
<td>85</td>
<td>-</td>
<td>Same as R168</td>
<td>-</td>
</tr>
<tr>
<td>R249</td>
<td>95</td>
<td>-</td>
<td>Same as R214</td>
<td>-</td>
</tr>
<tr>
<td>R250</td>
<td>109</td>
<td>1</td>
<td>P-7763599-P71</td>
<td>5600 ohms ±10%, 1/2 watt</td>
</tr>
<tr>
<td>R251</td>
<td>103</td>
<td>-</td>
<td>Same as R230</td>
<td>-</td>
</tr>
<tr>
<td>R252</td>
<td>102</td>
<td>-</td>
<td>Same as R226</td>
<td>-</td>
</tr>
<tr>
<td>R253</td>
<td>85</td>
<td>-</td>
<td>Same as R168</td>
<td>-</td>
</tr>
<tr>
<td>R302</td>
<td>110</td>
<td>1</td>
<td>P-7763599-P34</td>
<td>220 ohms ±10%, 1/2 watt</td>
</tr>
<tr>
<td>R303</td>
<td>89</td>
<td>-</td>
<td>Same as R205</td>
<td>-</td>
</tr>
<tr>
<td>R304</td>
<td>68</td>
<td>-</td>
<td>Same as R109</td>
<td>-</td>
</tr>
<tr>
<td>R305</td>
<td>89</td>
<td>-</td>
<td>Same as R205</td>
<td>-</td>
</tr>
<tr>
<td>SYMBOL NO.</td>
<td>ENVELOPE NO. OR BOX LETTER</td>
<td>QUANTITY</td>
<td>G.E. DRAWING AND PART NUMBER</td>
<td>DESCRIPTION</td>
</tr>
<tr>
<td>------------</td>
<td>---------------------------</td>
<td>----------</td>
<td>-----------------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>R306</td>
<td>79</td>
<td>-</td>
<td>Same as R159</td>
<td>-</td>
</tr>
<tr>
<td>R307</td>
<td>110</td>
<td>-</td>
<td>Same as R302</td>
<td>-</td>
</tr>
<tr>
<td>R308</td>
<td>S</td>
<td>1</td>
<td>M-7763500-F2</td>
<td>Bradleyometer, 2500 ohms +10%</td>
</tr>
<tr>
<td>R309</td>
<td>68</td>
<td>-</td>
<td>Same as R109</td>
<td>-</td>
</tr>
<tr>
<td>R310</td>
<td>111</td>
<td>-</td>
<td>P-7763500-F32</td>
<td>47,000 ohms +10%, 1 watt</td>
</tr>
<tr>
<td>R311</td>
<td>90</td>
<td>-</td>
<td>Same as R205</td>
<td>-</td>
</tr>
<tr>
<td>R312</td>
<td>2932</td>
<td>-</td>
<td>Same as R14</td>
<td>-</td>
</tr>
<tr>
<td>R313</td>
<td>86</td>
<td>-</td>
<td>Same as R169</td>
<td>-</td>
</tr>
<tr>
<td>R314</td>
<td>67</td>
<td>-</td>
<td>Same as R107</td>
<td>-</td>
</tr>
<tr>
<td>R315</td>
<td>112</td>
<td>1</td>
<td>P-7763500-F181</td>
<td>8200 ohms +5%, 1 watt</td>
</tr>
<tr>
<td>R316</td>
<td>72</td>
<td>-</td>
<td>Same as R128</td>
<td>-</td>
</tr>
<tr>
<td>R317</td>
<td>82</td>
<td>-</td>
<td>Same as R164</td>
<td>-</td>
</tr>
<tr>
<td>R318</td>
<td>87</td>
<td>-</td>
<td>Same as R177</td>
<td>-</td>
</tr>
<tr>
<td>R319</td>
<td>103</td>
<td>-</td>
<td>Same as R230</td>
<td>-</td>
</tr>
<tr>
<td>R320</td>
<td>64</td>
<td>-</td>
<td>Same as R103</td>
<td>-</td>
</tr>
<tr>
<td>R321</td>
<td>113</td>
<td>1</td>
<td>P-7763500-F59</td>
<td>560 ohms +10%, 1/2 watt</td>
</tr>
<tr>
<td>R322</td>
<td>82</td>
<td>1</td>
<td>P-7763500-F169</td>
<td>9100 ohms +5%, 1/2 watt</td>
</tr>
<tr>
<td>R323</td>
<td>86</td>
<td>-</td>
<td>Same as R169</td>
<td>-</td>
</tr>
<tr>
<td>R324</td>
<td>79</td>
<td>-</td>
<td>Same as R159</td>
<td>-</td>
</tr>
<tr>
<td>R325</td>
<td>79</td>
<td>-</td>
<td>Same as R159</td>
<td>-</td>
</tr>
<tr>
<td>R326</td>
<td>115</td>
<td>1</td>
<td>P-7763500-F77</td>
<td>18,000 ohms +10%, 1/2 watt</td>
</tr>
<tr>
<td>R327</td>
<td>88</td>
<td>-</td>
<td>Same as R203</td>
<td>-</td>
</tr>
<tr>
<td>R328</td>
<td>83</td>
<td>-</td>
<td>Same as R165</td>
<td>-</td>
</tr>
<tr>
<td>R329</td>
<td>97</td>
<td>-</td>
<td>Same as R216</td>
<td>-</td>
</tr>
<tr>
<td>R330</td>
<td>88</td>
<td>-</td>
<td>Same as R203</td>
<td>-</td>
</tr>
<tr>
<td>R331</td>
<td>79</td>
<td>-</td>
<td>Same as R107</td>
<td>-</td>
</tr>
<tr>
<td>R332</td>
<td>116</td>
<td>1</td>
<td>P-7763500-F211</td>
<td>150,000 ohms +5%, 1/2 watt</td>
</tr>
<tr>
<td>R333</td>
<td>68</td>
<td>-</td>
<td>Same as R109</td>
<td>-</td>
</tr>
<tr>
<td>R334</td>
<td>82</td>
<td>-</td>
<td>Same as R164</td>
<td>-</td>
</tr>
<tr>
<td>R335</td>
<td>117</td>
<td>1</td>
<td>P-7763500-F80</td>
<td>33,000 ohms +10%, 1 watt</td>
</tr>
<tr>
<td>R336</td>
<td>74</td>
<td>-</td>
<td>Same as R130</td>
<td>-</td>
</tr>
<tr>
<td>R337</td>
<td>118</td>
<td>1</td>
<td>P-7763500-F67</td>
<td>2700 ohms +10%, 1 watt</td>
</tr>
<tr>
<td>R338</td>
<td>68</td>
<td>-</td>
<td>Same as R109</td>
<td>-</td>
</tr>
<tr>
<td>R339</td>
<td>105</td>
<td>1</td>
<td>P-7763500-F94</td>
<td>68,000 ohms +10%, 1/2 watt</td>
</tr>
<tr>
<td>T117</td>
<td>T</td>
<td>1</td>
<td>K-7877947</td>
<td>Cat. No. 67G919</td>
</tr>
<tr>
<td>T217</td>
<td>T</td>
<td>-</td>
<td>Same as T117</td>
<td>Type 12SK7</td>
</tr>
<tr>
<td>T322</td>
<td>T</td>
<td>-</td>
<td>Same as T117</td>
<td>Type 12K8</td>
</tr>
<tr>
<td>V101</td>
<td>-</td>
<td>13</td>
<td>-</td>
<td>Type 12A6</td>
</tr>
<tr>
<td>V102</td>
<td>-</td>
<td>3</td>
<td>-</td>
<td>Type 12SR7</td>
</tr>
<tr>
<td>V103</td>
<td>-</td>
<td>-</td>
<td>Same as V101</td>
<td>Lamp Type No. CD-1010-CL</td>
</tr>
<tr>
<td>V104</td>
<td>-</td>
<td>-</td>
<td>Same as V101</td>
<td>-</td>
</tr>
<tr>
<td>V105</td>
<td>-</td>
<td>3</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>V106</td>
<td>-</td>
<td>3</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>V107</td>
<td>120</td>
<td>3</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>V201</td>
<td>-</td>
<td>-</td>
<td>Same as V101</td>
<td>-</td>
</tr>
<tr>
<td>V202</td>
<td>-</td>
<td>-</td>
<td>Same as V101</td>
<td>-</td>
</tr>
<tr>
<td>V203</td>
<td>-</td>
<td>-</td>
<td>Same as V102</td>
<td>-</td>
</tr>
<tr>
<td>V204</td>
<td>-</td>
<td>-</td>
<td>Same as V101</td>
<td>-</td>
</tr>
<tr>
<td>V205</td>
<td>-</td>
<td>-</td>
<td>Same as V101</td>
<td>-</td>
</tr>
<tr>
<td>V206</td>
<td>-</td>
<td>-</td>
<td>Same as V101</td>
<td>-</td>
</tr>
<tr>
<td>V207</td>
<td>-</td>
<td>-</td>
<td>Same as V105</td>
<td>-</td>
</tr>
<tr>
<td>V208</td>
<td>-</td>
<td>-</td>
<td>Same as V106</td>
<td>-</td>
</tr>
<tr>
<td>V209</td>
<td>-</td>
<td>-</td>
<td>Same as V107</td>
<td>-</td>
</tr>
<tr>
<td>V301</td>
<td>-</td>
<td>-</td>
<td>Same as V101</td>
<td>-</td>
</tr>
<tr>
<td>V302</td>
<td>-</td>
<td>-</td>
<td>Same as V102</td>
<td>-</td>
</tr>
<tr>
<td>V303</td>
<td>-</td>
<td>-</td>
<td>Same as V101</td>
<td>-</td>
</tr>
<tr>
<td>V304</td>
<td>-</td>
<td>-</td>
<td>Same as V101</td>
<td>-</td>
</tr>
<tr>
<td>SYMBOL NO.</td>
<td>ENVELOPE NO. OR BOX LETTER</td>
<td>QUANTITY</td>
<td>G.E. DRAWING AND PART NUMBER</td>
<td>DESCRIPTION</td>
</tr>
<tr>
<td>------------</td>
<td>----------------------------</td>
<td>----------</td>
<td>-----------------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>V305</td>
<td>-</td>
<td>-</td>
<td>Same as V101</td>
<td>-</td>
</tr>
<tr>
<td>V306</td>
<td>-</td>
<td>-</td>
<td>Same as V105</td>
<td>-</td>
</tr>
<tr>
<td>V307</td>
<td>-</td>
<td>-</td>
<td>Same as V106</td>
<td>-</td>
</tr>
<tr>
<td>V308</td>
<td>-</td>
<td>-</td>
<td>Same as V101</td>
<td>-</td>
</tr>
<tr>
<td>V309</td>
<td>121</td>
<td>4</td>
<td>K-7878415</td>
<td>Grid Clip Type No. 6000 Cinch Mfg. Co.</td>
</tr>
<tr>
<td></td>
<td>U</td>
<td>1</td>
<td>ML-7762748-G4</td>
<td>Dynamotor mounting</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1</td>
<td>K-7878738</td>
<td>Plug (for use in operating receivers when detached from mounting racks, servicing, testing, etc.)</td>
</tr>
<tr>
<td></td>
<td>122</td>
<td>3 sets</td>
<td>K-7880785-P1</td>
<td>H-v dynamotor brushes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>123</td>
<td>3 sets</td>
<td>K-7880786-P1</td>
<td>L-v dynamotor brushes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(6)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Over-all Selectivity Curve, Band No. 1

RESTRICTED

K-7883555
Over-all Selectivity Curve, Band No. 2

RESTRICTED
NAVAER 08-5Q-245

K-7883556
Over-all Selectivity Curve, Band No. 3 and 4

K-7883557

RESTRICTED
SENSITIVITY VS. FREQUENCY

SIGNAL: MODULATED 50% AT 400 AAC.

CONTROLS: MGW, MAN, VOLUME MAX.

RADIO RECEIVER UNIT NO. 1

MODEL: NAV-EQUIPMENT.

NAVY TYPE: CG-45/55.

SENSITIVITY: SIGNAL INPUT REQUIRED TO PRODUCE
1.75 VOLTS OUTPUT TO 300 OHM LOAD.

* NOTE: VOLUME CONTROL IS RETARDED, WHEN
NECESSARY, TO MAKE NOISE OUTPUT ON UN-
MODULATED SIGNAL EQUAL TO 36 VOLTS.
I-f and Image Rejection

ATTENUATION: DB

FREQUENCY: MEGACYCLES

- I-f Rejection
- Image Rejection
AVC Curve

OUTPUT VS. INPUT

SIGNAL: 1.55 Mc, MODULATED 30% AT 400 Mc
CONTROLS: MCM, AVC, VOL, MAX

RADIO RECEIVER UNIT NO. 2
MODEL, FXH-4056
NAVY TYPE, C6-4816

0.1 VOLT
1 VOLT
2 VOLTS

SIGNAL INPUT, MICROVOLTS

RESTRICTED
NAVYER 06-5Q-245
Over-all Selectivity Curve, Band No. 2

RESTRICTED

K-7883565
Over-all Selectivity Curve, Band No. 3 and 4
ABSOLUTE SENSITIVITY
VS.
FREQUENCY

CONTROLS: MCW, MAN, VOL MAX

RADIO RECEIVER UNIT NO. 2
OF
MODEL RAN-EQUIPMENT
NAVY TYPE 08-SQ-245

SENSITIVITY = MICROVOLTS AT ANTENNA POST REQUIRED
TO PRODUCE 10 MW. OUTPUT USING
50%, 400V. MW. SIGNAL.

Sensitivity Curve

K-7883567
I.F. AND IMAGE REJECTION
VS
FREQUENCY

RADIO RECEIVER UNIT NO. 2
OF
MODEL RAX EQUIPMENT
NAVY TYPE CG-9614G

GREATER THAN 106 DB.

IMAGE REJECTION

I.F. REJECTION EXCEEDS 106 DB
AT ALL FREQUENCIES

ATENUATION

FREQUENCY - MEGACYCLES

K-7883568

I-f and Image Rejection

RESTRICTED
OVERALL SELECTIVITY
BAND NO. 1
RADIO RECEIVER UNIT NO. 3
OF
MODEL RAR EQUIPMENT
NAVY TYPE 06-40117

FREQUENCY DEVIATION

Over-all Selectivity Curve, Band No. 1

K-7883573
SENSITIVITY VS. FREQUENCY

SIGNAL: MODULATED 50% AT 400
CONTROLS: MIC, MAN, VOLUME MAX
RADIO RECEIVER UNIT NO. 3
MODEL, NAX-1 EQUIPMENT
NAVY TYPE 05-46117
SENSITIVITY = SIGNAL INPUT REQUIRED
TO PRODUCE 1.75 VOLTS OUTPUT TO 500
OHM LOAD.

A NOTE: VOLUME CONTROL IS RETARDED,
WHEN NECESSARY, TO MAKE NOISE
OUTPUT ON UNMODULATED SIGNAL EQUAL
TO .86 VOLTS.

Sensitivity Curve

K-7883576
I-f and Image Rejection

Radio Receiver Unit No. 3 of Model RAKE Equipment
Navy Type GG-46117

I-f Rejection Exceeds 120 DB at All Frequencies

Image Rejection

Frequency - Megacycles

I-f and Image Rejection
**RESTRICTED**

**NAVAER 08-50-245**

**RESISTORS**

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>R102</td>
<td>0.1 MEGOHM 1/2 WATT</td>
</tr>
<tr>
<td>R103</td>
<td>1.0 MEGOHM</td>
</tr>
<tr>
<td>R105</td>
<td>750 OHMS</td>
</tr>
<tr>
<td>R106</td>
<td>22,000</td>
</tr>
<tr>
<td>R107</td>
<td>12,000</td>
</tr>
<tr>
<td>R108</td>
<td>12,000</td>
</tr>
<tr>
<td>R109</td>
<td>1,000 OHMS 1/2 WATT</td>
</tr>
<tr>
<td>R110</td>
<td>5,000 OHMS</td>
</tr>
<tr>
<td>R111</td>
<td>1,200 OHMS 1/2 WATT</td>
</tr>
<tr>
<td>R126</td>
<td>10,000</td>
</tr>
<tr>
<td>R127</td>
<td>330,000</td>
</tr>
<tr>
<td>R128</td>
<td>68,000</td>
</tr>
<tr>
<td>R129</td>
<td>22,000</td>
</tr>
<tr>
<td>R130</td>
<td>390</td>
</tr>
<tr>
<td>R131</td>
<td>82,000</td>
</tr>
<tr>
<td>R132</td>
<td>12,000 OHMS</td>
</tr>
<tr>
<td>R133</td>
<td>5 MEGOHMS 1/2 WATT</td>
</tr>
<tr>
<td>R134</td>
<td>10 MEGOHMS 1/2 WATT</td>
</tr>
<tr>
<td>R135</td>
<td>1,000 OHMS 1/2 WATT</td>
</tr>
<tr>
<td>R136</td>
<td>1,000 OHMS 1/2 WATT</td>
</tr>
<tr>
<td>R137</td>
<td>47 MEGOHMS</td>
</tr>
<tr>
<td>R138</td>
<td>750 OHMS</td>
</tr>
<tr>
<td>R139</td>
<td>39,000 OHMS</td>
</tr>
<tr>
<td>R140</td>
<td>15,000 OHMS</td>
</tr>
<tr>
<td>R141</td>
<td>1,000 OHMS 1/2 WATT</td>
</tr>
<tr>
<td>R142</td>
<td>47 MEGOHMS</td>
</tr>
<tr>
<td>R143</td>
<td>750 OHMS</td>
</tr>
<tr>
<td>R144</td>
<td>39,000 OHMS</td>
</tr>
<tr>
<td>R145</td>
<td>15,000 OHMS</td>
</tr>
<tr>
<td>R146</td>
<td>1,000 OHMS 1/2 WATT</td>
</tr>
<tr>
<td>R147</td>
<td>47 MEGOHMS</td>
</tr>
<tr>
<td>R148</td>
<td>750 OHMS</td>
</tr>
<tr>
<td>R149</td>
<td>39,000 OHMS</td>
</tr>
<tr>
<td>R150</td>
<td>15,000 OHMS</td>
</tr>
<tr>
<td>R151</td>
<td>1,000 OHMS 1/2 WATT</td>
</tr>
<tr>
<td>R152</td>
<td>2,000 OHMS</td>
</tr>
<tr>
<td>R153</td>
<td>800,000 OHMS</td>
</tr>
<tr>
<td>R154</td>
<td>68,000 OHMS 1 WATT</td>
</tr>
<tr>
<td>R155</td>
<td>1 MEGOHM 1/2 WATT</td>
</tr>
<tr>
<td>R156</td>
<td>15,000 OHMS 1 WATT</td>
</tr>
<tr>
<td>R157</td>
<td>1,000 OHMS 1/2 WATT</td>
</tr>
<tr>
<td>R158</td>
<td>47 MEGOHMS</td>
</tr>
<tr>
<td>R159</td>
<td>750 OHMS</td>
</tr>
<tr>
<td>R160</td>
<td>39,000 OHMS</td>
</tr>
<tr>
<td>R161</td>
<td>15,000 OHMS</td>
</tr>
<tr>
<td>R162</td>
<td>1,000 OHMS 1/2 WATT</td>
</tr>
<tr>
<td>R163</td>
<td>47 MEGOHMS</td>
</tr>
<tr>
<td>R164</td>
<td>750 OHMS</td>
</tr>
<tr>
<td>R165</td>
<td>39,000 OHMS</td>
</tr>
<tr>
<td>R166</td>
<td>15,000 OHMS</td>
</tr>
<tr>
<td>R167</td>
<td>1,000 OHMS 1/2 WATT</td>
</tr>
<tr>
<td>R168</td>
<td>47 MEGOHMS</td>
</tr>
<tr>
<td>R169</td>
<td>750 OHMS</td>
</tr>
<tr>
<td>R170</td>
<td>39,000 OHMS</td>
</tr>
<tr>
<td>R171</td>
<td>15,000 OHMS</td>
</tr>
<tr>
<td>R172</td>
<td>1,000 OHMS 1/2 WATT</td>
</tr>
<tr>
<td>R173</td>
<td>47 MEGOHMS</td>
</tr>
<tr>
<td>R174</td>
<td>750 OHMS</td>
</tr>
<tr>
<td>R175</td>
<td>39,000 OHMS</td>
</tr>
<tr>
<td>R176</td>
<td>15,000 OHMS</td>
</tr>
<tr>
<td>R177</td>
<td>1,000 OHMS 1/2 WATT</td>
</tr>
<tr>
<td>R178</td>
<td>47 MEGOHMS</td>
</tr>
<tr>
<td>R179</td>
<td>750 OHMS</td>
</tr>
<tr>
<td>R180</td>
<td>39,000 OHMS</td>
</tr>
<tr>
<td>R181</td>
<td>15,000 OHMS</td>
</tr>
<tr>
<td>R182</td>
<td>1,000 OHMS 1/2 WATT</td>
</tr>
<tr>
<td>R183</td>
<td>47 MEGOHMS</td>
</tr>
<tr>
<td>R184</td>
<td>750 OHMS</td>
</tr>
<tr>
<td>R185</td>
<td>39,000 OHMS</td>
</tr>
<tr>
<td>R186</td>
<td>15,000 OHMS</td>
</tr>
<tr>
<td>R187</td>
<td>1,000 OHMS 1/2 WATT</td>
</tr>
<tr>
<td>R188</td>
<td>47 MEGOHMS</td>
</tr>
<tr>
<td>R189</td>
<td>750 OHMS</td>
</tr>
<tr>
<td>R190</td>
<td>39,000 OHMS</td>
</tr>
<tr>
<td>R191</td>
<td>15,000 OHMS</td>
</tr>
<tr>
<td>R192</td>
<td>1,000 OHMS 1/2 WATT</td>
</tr>
<tr>
<td>R193</td>
<td>47 MEGOHMS</td>
</tr>
<tr>
<td>R194</td>
<td>750 OHMS</td>
</tr>
<tr>
<td>R195</td>
<td>39,000 OHMS</td>
</tr>
<tr>
<td>R196</td>
<td>15,000 OHMS</td>
</tr>
<tr>
<td>R197</td>
<td>1,000 OHMS 1/2 WATT</td>
</tr>
<tr>
<td>R198</td>
<td>47 MEGOHMS</td>
</tr>
<tr>
<td>R199</td>
<td>750 OHMS</td>
</tr>
<tr>
<td>R200</td>
<td>39,000 OHMS</td>
</tr>
<tr>
<td>R201</td>
<td>15,000 OHMS</td>
</tr>
<tr>
<td>R202</td>
<td>1,000 OHMS 1/2 WATT</td>
</tr>
<tr>
<td>R203</td>
<td>47 MEGOHMS</td>
</tr>
</tbody>
</table>

**TUBES**

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>V101</td>
<td>12 SK7 RF AMP</td>
</tr>
<tr>
<td>V102</td>
<td>12 K8 CONVERTER</td>
</tr>
<tr>
<td>V103</td>
<td>12 SK7 I.F. AMP</td>
</tr>
<tr>
<td>V104</td>
<td>12 SK7 I.F. AMP</td>
</tr>
<tr>
<td>V105</td>
<td>12 A6 OUTPUT</td>
</tr>
<tr>
<td>V106</td>
<td>12 SR7 B.F.O. AND 2ND. DET</td>
</tr>
<tr>
<td>V107</td>
<td>CD-1010-CL</td>
</tr>
</tbody>
</table>

**SWITCHES**

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SI01A,B,C</td>
<td>M 7464376 P3</td>
</tr>
<tr>
<td>SI02A,C,D</td>
<td>M 7464292 P2</td>
</tr>
<tr>
<td>SI03A,B</td>
<td>M 7464292 P1</td>
</tr>
<tr>
<td>SI05A,B,C,D</td>
<td>M 7464376 P3</td>
</tr>
<tr>
<td>SI06A,B,C,D</td>
<td>M 7464376 P1</td>
</tr>
</tbody>
</table>

**TRANSFORMERS**

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>T101</td>
<td>K 7857350</td>
</tr>
<tr>
<td>T102</td>
<td>K 7857351</td>
</tr>
<tr>
<td>T103</td>
<td>K 7857352</td>
</tr>
<tr>
<td>T104</td>
<td>K 7857353</td>
</tr>
<tr>
<td>T105</td>
<td>K 7857354</td>
</tr>
<tr>
<td>T106</td>
<td>K 7857355</td>
</tr>
<tr>
<td>T107</td>
<td>K 7857355</td>
</tr>
<tr>
<td>T108</td>
<td>K 7857357</td>
</tr>
<tr>
<td>T109</td>
<td>P 7763100 GI</td>
</tr>
<tr>
<td>T110</td>
<td>K 7857358</td>
</tr>
<tr>
<td>T111</td>
<td>K 7857359</td>
</tr>
<tr>
<td>T112</td>
<td>K 7857360</td>
</tr>
<tr>
<td>T113</td>
<td>K 7857361</td>
</tr>
<tr>
<td>T114</td>
<td>T 7661130 GI</td>
</tr>
<tr>
<td>T115</td>
<td>P 7763102 GI</td>
</tr>
<tr>
<td>T117</td>
<td>K 7857947</td>
</tr>
</tbody>
</table>

* T111 K-7877947 USED ON NAVY MODEL RAX-1.

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

**W-7350826**
Schematic Diagram, Type CG-46117 Receiver Unit No. 3
SWITCHES
S 301A-B-C M 7464378 PT-4
S 302A-B-C M 7464292 PT-2
S 303A-B M 7464292 PT-1
S 305A-C-D M 7464378 PT-4
S 306A-C-D M 7464378 PT-4
S 307A-C-D M 7464378 PT-2

TRANSFORMERS
T 301 KT877378
T 302 KT877379
T 302A KT877381
T 304 KT877380
T 305 KT877381
T 306 KT877382
T 307A KT877383
T 307B KT877384
T 310 KT877385
T 311 PT765107 91
T 312 PT765109 91
T 314 KT877380
T 315 KT877391
T 316 KT877392
T 317 KT877393
T 318 KT877384
T 319 PT765308 91
T 321 PT765109 91
T 322 KT877385
T 323 KT877386
T 325 KT877387
T 328 KT877388
T 329 KT877389
T 322 KT877347 USED ON NAVY MODEL RAX-I

TUBE SOCKETS
X 301 KT874006
X 302
X 303
X 304
X 305
X 306
X 307
X 308 KT874006

TUBES
V 301 I2 SK7
V 302 I2 KB
V 303 I3 SK7
V 304 I2 SK7
V 305 I2 SK7
V 306 I2 AE
V 307 I2 AR7
V 308 I2 SK7
V 309 CD-1010-CL

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

WW-7350185
Connection Diagram, Type CG-46115 Receiver Unit No. 1
Connection Diagram, R-f Units, Type CG-46115 Radio Receiver No. 1
Connection Diagram, R-f Units, Type CG-46115 Radio Receiver No. 1
Connection Diagram, R-f Units, Type CG-46115 Radio Receiver No. 1
RESTRICTED
NAVAER 08-5Q-245

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

W-7350840

124 B

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

TO C2006-1 FOR CONTINUATION OF THIS CIRCUIT SEE CONN. DIAG. W-7350830.
Connection Diagram, R-f Units, Type CG-46116 Radio Receiver No. 2
CAPACITORS

<table>
<thead>
<tr>
<th>Capacitor</th>
<th>Value</th>
<th>Voltage</th>
</tr>
</thead>
<tbody>
<tr>
<td>C201</td>
<td>50 MFD</td>
<td>500 V</td>
</tr>
<tr>
<td>C202</td>
<td>50 MFD</td>
<td>500 V</td>
</tr>
<tr>
<td>C203</td>
<td>50 MFD</td>
<td>TRIMMER</td>
</tr>
<tr>
<td>C204</td>
<td>50 MFD</td>
<td>TRIMMER</td>
</tr>
<tr>
<td>C206</td>
<td>50 MFD</td>
<td>TRIMMER</td>
</tr>
<tr>
<td>C212</td>
<td>0.006 MFD</td>
<td>300 V.</td>
</tr>
<tr>
<td>C213</td>
<td>50 MFD</td>
<td>TRIMMER</td>
</tr>
<tr>
<td>C214</td>
<td>50 MFD</td>
<td>TRIMMER</td>
</tr>
<tr>
<td>C215</td>
<td>50 MFD</td>
<td>TRIMMER</td>
</tr>
<tr>
<td>C216</td>
<td>50 MFD</td>
<td>TRIMMER</td>
</tr>
<tr>
<td>C217</td>
<td>50 MFD</td>
<td>TRIMMER</td>
</tr>
<tr>
<td>C218</td>
<td>50 MFD</td>
<td>TRIMMER</td>
</tr>
<tr>
<td>C224</td>
<td>50 MFD</td>
<td>TRIMMER</td>
</tr>
<tr>
<td>C225</td>
<td>50 MFD</td>
<td>TRIMMER</td>
</tr>
<tr>
<td>C226</td>
<td>50 MFD</td>
<td>TRIMMER</td>
</tr>
<tr>
<td>C227</td>
<td>0.006 MFD</td>
<td>300 V.</td>
</tr>
<tr>
<td>C228</td>
<td>25 MFD</td>
<td>CERAMIC</td>
</tr>
<tr>
<td>C229</td>
<td>50 MFD</td>
<td>TRIMMER</td>
</tr>
<tr>
<td>C241</td>
<td>50 MFD</td>
<td>TRIMMER</td>
</tr>
<tr>
<td>C243</td>
<td>50 MFD</td>
<td>TRIMMER</td>
</tr>
<tr>
<td>C245</td>
<td>50 MFD</td>
<td>TRIMMER</td>
</tr>
<tr>
<td>C254</td>
<td>20 MFD</td>
<td>500 V.</td>
</tr>
<tr>
<td>C272</td>
<td>10 MFD</td>
<td>500 V.</td>
</tr>
<tr>
<td>C283</td>
<td>10 MFD</td>
<td>500 V.</td>
</tr>
<tr>
<td>C285</td>
<td>10 MFD</td>
<td>500 V.</td>
</tr>
<tr>
<td>C286</td>
<td>50 MFD</td>
<td>500 V.</td>
</tr>
<tr>
<td>C287</td>
<td>100 MFD</td>
<td>500 V.</td>
</tr>
<tr>
<td>C288</td>
<td>612 MFD</td>
<td>250 V.</td>
</tr>
<tr>
<td>C289</td>
<td>730 MFD</td>
<td>250 V.</td>
</tr>
<tr>
<td>C290</td>
<td>1187 MFD</td>
<td>250 V.</td>
</tr>
<tr>
<td>C291</td>
<td>2390 MFD</td>
<td>250 V.</td>
</tr>
<tr>
<td>C295</td>
<td>100 MFD</td>
<td>500 V.</td>
</tr>
<tr>
<td>C296</td>
<td>10 MFD</td>
<td>500 V.</td>
</tr>
<tr>
<td>C297</td>
<td>2390 MFD</td>
<td>250 V.</td>
</tr>
<tr>
<td>C298</td>
<td>2390 MFD</td>
<td>250 V.</td>
</tr>
<tr>
<td>C299</td>
<td>20 MFD</td>
<td>500 V.</td>
</tr>
<tr>
<td>C310</td>
<td>50 MFD</td>
<td>500 V.</td>
</tr>
<tr>
<td>C312</td>
<td>50 MFD</td>
<td>500 V.</td>
</tr>
<tr>
<td>C318</td>
<td>50 MFD</td>
<td>500 V.</td>
</tr>
</tbody>
</table>

CHOKES

<table>
<thead>
<tr>
<th>Choke</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>L209</td>
<td>M-7464921 GI</td>
</tr>
</tbody>
</table>

RESISTORS

<table>
<thead>
<tr>
<th>Resistor</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>R204</td>
<td>620 OHMS</td>
<td>1/2 WATT</td>
</tr>
<tr>
<td>R205</td>
<td>2200 OHMS</td>
<td>1/2 WATT</td>
</tr>
<tr>
<td>R211</td>
<td>2200 OHMS</td>
<td>1/2 WATT</td>
</tr>
<tr>
<td>R243</td>
<td>2000 OHMS</td>
<td>1/2 WATT</td>
</tr>
</tbody>
</table>

SWITCHES

<table>
<thead>
<tr>
<th>Switch</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>S201A</td>
<td>M7464376 P3</td>
</tr>
<tr>
<td>S201B</td>
<td>M7464376 P3</td>
</tr>
<tr>
<td>S201C</td>
<td>M7464376 P3</td>
</tr>
<tr>
<td>S201D</td>
<td>M7464376 P3</td>
</tr>
<tr>
<td>S202A</td>
<td>M7464376 P6</td>
</tr>
<tr>
<td>S202B</td>
<td>M7464376 P6</td>
</tr>
<tr>
<td>S202C</td>
<td>M7464376 P6</td>
</tr>
<tr>
<td>S202D</td>
<td>M7464376 P6</td>
</tr>
</tbody>
</table>

TRANSFORMERS

<table>
<thead>
<tr>
<th>Transformer</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>T201</td>
<td>K-7877362</td>
</tr>
<tr>
<td>T202</td>
<td>K-7877363</td>
</tr>
<tr>
<td>T203</td>
<td>K-7877364</td>
</tr>
<tr>
<td>T204</td>
<td>K-7877365</td>
</tr>
<tr>
<td>T205</td>
<td>K-7877366</td>
</tr>
<tr>
<td>T206</td>
<td>K-7877367</td>
</tr>
<tr>
<td>T207</td>
<td>K-7877368</td>
</tr>
<tr>
<td>T208</td>
<td>K-7877369</td>
</tr>
<tr>
<td>T209</td>
<td>K-7877370</td>
</tr>
<tr>
<td>T210</td>
<td>K-7877371</td>
</tr>
<tr>
<td>T211</td>
<td>K-7877372</td>
</tr>
<tr>
<td>T212</td>
<td>K-7877373</td>
</tr>
<tr>
<td>T213</td>
<td>K-7877374</td>
</tr>
<tr>
<td>T214</td>
<td>K-7877375</td>
</tr>
<tr>
<td>T215</td>
<td>K-7877376</td>
</tr>
<tr>
<td>T216</td>
<td>K-7877377</td>
</tr>
<tr>
<td>T217</td>
<td>K-7877378</td>
</tr>
</tbody>
</table>

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

S201-1 AND S201-1
S201-2 AND S201-2
S201-3 AND S201-3
S201-0 AND S201-0
S202-1 AND S202-1
S202-2 AND S202-2
S202-3 AND S202-3
S203-1 AND S203-1
S203-2 AND S203-2
S204-1 AND S204-1
S204-2 AND S204-2

G. E. SPEC. K-7875044 PT-2

1/2 watt 1.2 watt 1.2 watt 1.2 watt

Black tracer

G. E. SPEC. K-7875044 PT-2

1/64" rubber insulation blue
Connection Diagram, Type CG-46117 Receiver Unit No. 3
Connection Diagram, Type CG-46117 Receiver Unit No. 3
## CONNECTIONS

<table>
<thead>
<tr>
<th>Wire Size</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>.040&quot; DIA</td>
<td>COPPER WIRE TINNED</td>
</tr>
<tr>
<td>.061&quot; DIA</td>
<td>COPPER WIRE TINNED</td>
</tr>
<tr>
<td>.040&quot; DIA</td>
<td>COPPER WIRE TINNED</td>
</tr>
<tr>
<td>.061&quot; DIA</td>
<td>COPPER WIRE TINNED</td>
</tr>
</tbody>
</table>

**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, R325 is replaced by R324.

---

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

RESTRICTED

NAVAER 08-SQ-245

RESTRICTED

130 C

WW-7350186
Connection Diagram, R-f Units, Type CG-46117 Radio Receiver No. 3
Connection Diagram, Type CG-46128 Receiver Rack
Outline Drawing, Type CG-68028 Junction Box
Connection Diagram, Type CG-68028 Junction Box

**WIRE SIZE**

<table>
<thead>
<tr>
<th>WIRE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>CR</td>
<td>*16 AWG, STRANDED, ( \frac{1}{8} \text{ in.} ) RUBBER INSULATION, RED LACQUERED BRAID, O.D. ( \cdot 135 ) G.E. SPEC. K 7872345 P4</td>
</tr>
<tr>
<td>HBR</td>
<td>*22 AWG, IMPREGNATED DOUBLE CELLULOSE ACETATE BRAID INSULATION, WHITE WITH BROWN TRACER G.E. SPEC. K 7875044 P3.</td>
</tr>
<tr>
<td>DB</td>
<td>( \cdot 040 ) DIA. COPPER WIRE TINNED</td>
</tr>
</tbody>
</table>

RESTRICTED
RESTRICTED
NAVAER 08-5Q-245

BOTTOM VIEW OF OCTAL TUBE SHOWING TERMINAL NUMBERS

<table>
<thead>
<tr>
<th>TERMINAL NO.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>CAP</th>
</tr>
</thead>
<tbody>
<tr>
<td>TUBE TYPE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12SK7</td>
<td>SHELL</td>
<td>HEATER</td>
<td>SUP GRID.</td>
<td>CONTROL GRID</td>
<td>CATHODE</td>
<td>SCREEN GRID</td>
<td>HEATER</td>
<td>PLATE</td>
<td></td>
</tr>
<tr>
<td>12K8</td>
<td>SHELL</td>
<td>HEATER</td>
<td>MIXER PLATE</td>
<td>SCREEN GRID</td>
<td>OSC. GRID.</td>
<td>OSC. PLATE</td>
<td>HEATER</td>
<td>CATHODE</td>
<td>CONTROL GRID</td>
</tr>
<tr>
<td>12SR7</td>
<td>SHELL</td>
<td>GRID</td>
<td>CATHODE</td>
<td>DIODE PLATE</td>
<td>DIODE PLATE</td>
<td>TRIODE PLATE</td>
<td>HEATER</td>
<td>HEATER</td>
<td></td>
</tr>
<tr>
<td>12A6</td>
<td>SHELL</td>
<td>HEATER</td>
<td>PLATE</td>
<td>SCREEN GRID</td>
<td>CONTROL GRID</td>
<td>HEATER</td>
<td>CATHODE</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

K-7883550
NOTE:
- ALLOW IT 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-745686 R. S.
- REMOVE RECEIVER FROM RACK TO CHANGE TUBES, FUSE & DYNAMOTOR.

COMPLETE EQUIPMENT CONSISTS OF THREE RECEIVERS, THREE SINGLE MOUNTINGS, NAVY TYPE CG-6686, JUNCTION BOX, NAVY TYPE CB-6686 OUTLINE M-745686, ONE CABLE 504-965555 FT, THREE CABLES PER M-745686, THREE SLIP COVERS K-761689, ONE PLUG K-761689 FOR CABLING DIAGRAM SEE P-7764887

Outline Drawing of Single Receiver, Model RAX-1 Radio Receiving Equipment
Outline Drawing of Single Receiver, Model RAX-1 Radio Receiving Equipment
Schematic Diagram, Type CG-66116 Receiver Unit No. 2

WW-7350184
MLK-7878174 PI ("CANNON" G4-230-16"
CUT OFF RED & GREEN LEADS
(Not use on this assembly)
LENGTH AS REQUIRED

CONNECT TO PLUG TERMINAL # 3
CONNECT BLACK LEAD TO TERMINAL 3 ON PLUG.

WIND # 18 STRANDED WIRE AROUND SHIELDING AND SOLDER. THEN CONNECT TO BLACK LEAD.

POWER CABLE W701

POWER CABLE W703
EXCEPT FOR DIFFERENT PLUG OTHERWISE SAME AS PT. 1.

NOTE: WHITE LEAD IS POSITIVE & BLACK LEAD IS NEGATIVE. FOR 24-28 V. D.C. SUPPLY.

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