TM 11-246B

WAR DEPARTMENT TECHNICAL MANUAL

RADIO SET SCR-503-B (DIRECTION FINDING)

WAR DEPARTMENT • 4 MARCH 1944

ADDENDA SHEET

for

TECHNICAL MANUAL

RADIO SET SCR-503-B

4 March 1944

The following information corrects portions of TM 11-246B. Personnel using the equipment and having custody of the technical manual will attach this addenda sheet securely in the front of the TM, and will enter suitable notations beside each changed portion in the TM to indicate the presence of this information.

In order to obtain the maximum sensitivity without introducing errors due to receiver noise and instability, the values of resistor 16-1 on Radio Receiver BC-973-B, and resistor 230-1 on Radio Receiver BC-1003-B are individually adjusted on each set. Consequently, the values of these resistors may differ from those values specified on the schematic diagrams. Be sure to replace these resistors by others of the same values, or as close to them as possible.

In some of the receivers, it was necessary to shunt high value resistors across the loop circuits in order to adjust them so that the two loop circuits have identical pick-up. These resistors, which vary from 500,000 ohms to 10 megohms, are mounted across the loop trimmers. DON'T REMOVE THEM.

Some Radio Receivers BC-1003-B have a 0.002 μf capacitor shunted from the arm of the volume control to ground. This capacitor is used to by-pass any r-f voltage that might exist in this circuit. If replacement is necessary, any mica capacitor between 0.001 μf and 0.005 μf will be satisfactory.

ERRATA

Page 115.	Ref. Symbol 146-1.	Change Contractor's Drawing No. from P280-145 to P280-132.
Page 127.	Ref. Symbol 176-1.	Change Contractor's Drawing No. from P251-169 to P251-199.
Page 170.	Ref. Symbol 350-1.	Change Contractor's Drawing No. from P280-145 to P280-132.
Page 184.	Ref. Symbol 384-1.	Change Contractor's Drawing No. from P251-169 to P251-199.

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I

WAR DEPARTMENT,
WASHINGTON 25, D.C., 4 March 1944.

TM 11-246B, Radio Set SCR-503-B (Direction Finding), is published for the information and guidance of all concerned.

[A. G. 300.7 (24 Sept 43.]

BY ORDER OF THE SECRETARY OF WAR:

G. C. MARSHALL,
Chief of Staff.

OFFICIAL:
J. A. ULIO,
Major General,
The Adjutant General.

DISTRIBUTION:
IC 11 (5)

(For explanation of symbols see FM 21-6.)

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LIST OF ILLUSTRATIONS

LIST OF ILLUSTRATIONS (Cont'd)

DESTRUCTION NOTICE

WHY —To prevent the enemy from using or salvaging this e
ment for his benefit.

WHEN—When ordered by your commander.

HOW —1. Smash—Use sledges, axes, handaxes, pickaxes,
mers, crowbars, heavy tools, etc.

2. Cut—Use axes, handaxes, machetes, etc.

3. Burn—Use gasoline, kerosene, oil, flamethrowers
cendiary grenades, etc.

4. Explosives—Use firearms, grenades, TNT, etc.

5. Disposal—Bury in slit trenches, fox holes, other h
Throw in streams. Scatter.

USE ANYTHING IMMEDIATELY AVAILABLE FO
DESTRUCTION OF THIS EQUIPMENT.

WHAT—1. Smash—Meter, compass, loop and appendage, azi
scale, switches, tuning capacitors, microphone, t
dynamotor, coils, relays, batteries, and all contr

2. Cut—Cords, wiring, and loop.

3. Bend and/or Break—Sense antenna, case, control
and tripods.

4. Burn—Covers, chests, bag, tripods, headset, transf
ers, resistors, capacitors, and technical manuals.

5. Bury or Scatter—any or all of the above pieces a
breaking.

DESTROY EVERYTHING

SAFETY NOTICE

Voltages present in this equipment are dangerous to human
You can get a severe shock or be injured if they are contacted.
serve safety rules when working on this equipment. Always dis
nect the power cord before removing the receiver chassis from
cabinet or trying to service.

Be careful when handling the controls in these receivers.
can put the equipment out of commission if any control is fo
beyond its normal stop. Servicing should not be attempted ex
by qualified personnel, supplied with proper equipment.

SECTION I

DESCRIPTION

1. GENERAL.—

Radio Set SCR-503-B (Direction Finding) consists of two portable field radio direction finders, each covering a different frequency range and each capable of receiving both amplitude modulated and c-w signals. Each direction finder is supplied with storage battery, power supplies, and all other equipment needed to make the unit self-contained. The set also includes two control units, which connect the radio receivers into a two-way telephone system for communication with other direction finders.

The set is designed to determine the direction or azimuth of radio transmitters operating within the frequency bands covered by the direction finders.

The azimuth is used to determine the location of a transmitter when you are in communication with another direction finder tuned to the same transmitter. Use a map upon which the positions of the two direction finders are shown, and plot the azimuths from each of these points. The transmitter is located where the two azimuth lines intersect.

When using Radio Set SCR-503-B, the azimuth is also used to locate the position of your receiver if you know the location of two transmitters whose signals you can tune in to determine their azimuths. Plot these azimuths on a map showing the position of the two transmitters. Your location will be the point of intersection of these two lines. The radio set is also used for homing purposes. For example, to get from some unknown position to a transmitter whose location is also unknown, follow the direction of the signal by checking it from time to time as you approach the transmitter.

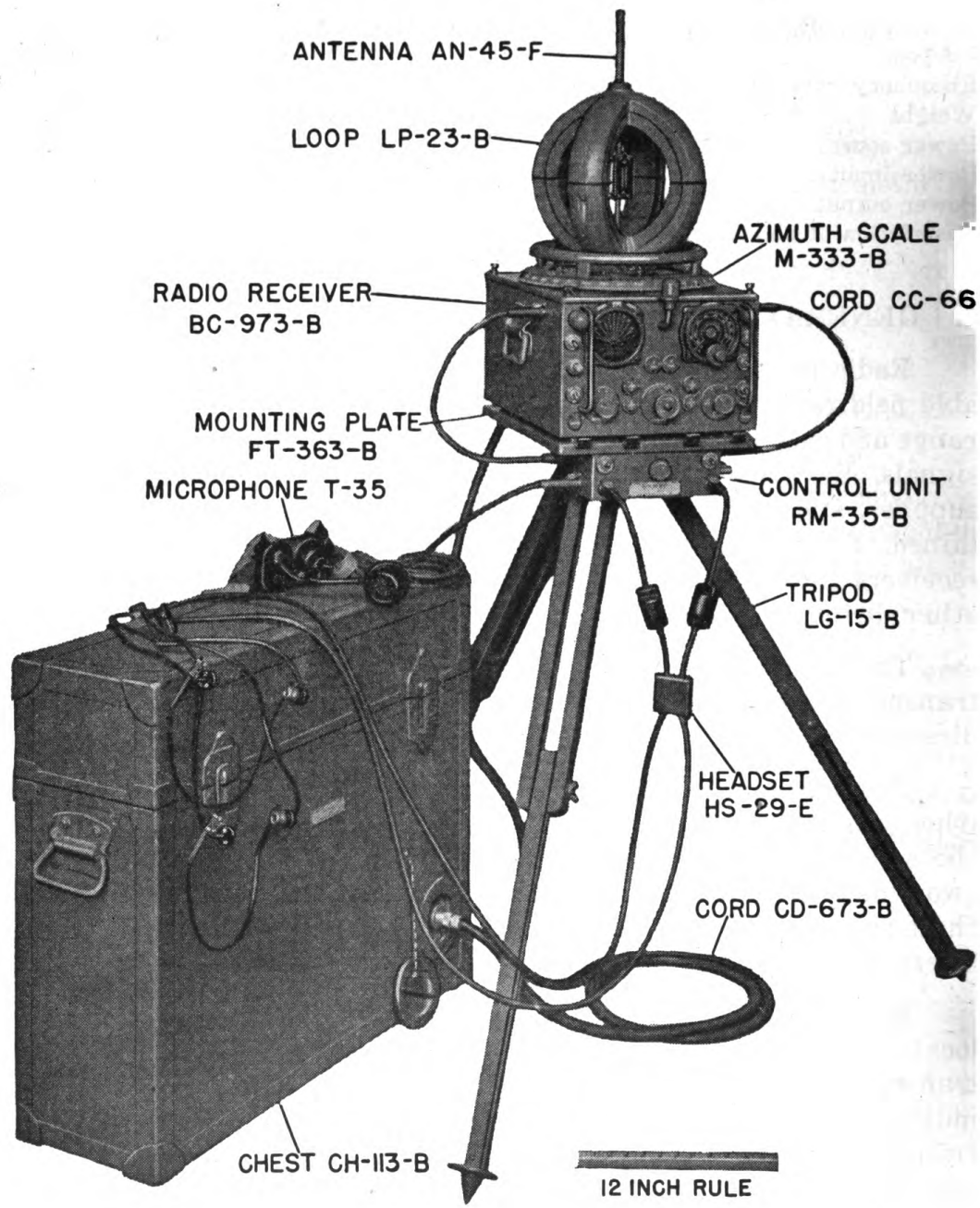


FIGURE 1. Radio Receiver BC-973-B of Radio Set SCR-503-B, ready for use.

FIGURE 2. Radio Set SCR-503-B, main components.

2. RADIO SET SCR-503-B, COMPONENTS WITH WEIGHTS A DIMENSIONS.—

(See fig. 2 for illustrations)

Quantity	Signal Corps Stock No.	Name of Component	Dimensions (Inches)					U W (lb
			Height	Width	Depth	Length	Diameter	
2		Antenna AN-45-F				96½ (ext.) 16½ (col.)	½ (max.)	0
2		Azimuth Scale M-333-B	5/8				11	3
4		Battery	10 5/16	13	7⅛			63
2		Battery cable				1 lead-16 1 lead-31	5/32	0
2		Chest CH-103-B	26⅛	15½	16⅛			32
2		Chest CH-113-B	23⅞	27⅞	9			33
2		Chest CH-139-C	12½	15	8¾			13
2		Compass MC-323-B	5/8				5	2
2		Control Unit RM-35-B	2⅞	7¼	2¾			3
4		Cord CC-66				20¾	¼	0
2		Cord CD-673-B				120	½	2
2		Cover BG-133-B						1
2		Cover BG-134-B						0
2		Dynamotor Unit PE-133-B	7⅜	6⅝	4 3/16			9
2		Headset HS-29-E						1
1		Loop LP-23-B	10 5/16	10¼	10¼			6
1		Loop LP-33-B	10 5/16	10¼	10¼			6
2		Microphone T-35						1
2		Mounting Plate FT-363-B		11	13			5
1		Radio Receiver BC-973-B	8	12	14½			36
1		Radio Receiver BC-1003-B	8	12	14½			38
2		Technical Manual TM 11-246B	9	5⅞				0
4		Tripod LG-15-B				39¾ (max.) 23 (min.)	5½ (mtg. disc)	9

3. PURPOSE.—

This instrument is capable of providing:

a. The direction of a transmitter of unknown location operating on any frequency between 100 kc and 3,000 kc.

b. Understandable reception of either amplitude modulated or c-w signals from transmitters operating between the frequencies of 100 kc and 3,000 kc at the same time that the azimuth or direction is being determined.

c. The location of a transmitter in conjunction with another direction finding station.

d. A connection to a two-way telephone system for communication with other direction finding stations.

4. FREQUENCY COVERAGE.—

a. Radio Receiver BC-1003-B.—Radio Receiver BC-1003-B covers a frequency range of 100-1000 kc in three bands of 100-200 kc, 200-450 kc, and 450-1000 kc.

b. Radio Receiver BC-973-B.—Radio Receiver BC-973-B covers a frequency range of 1000-3000 kc in two bands of 1000-2000 kc, and 2000-3000 kc.

5. WEIGHT.—

Radio Set SCR-503-B, complete, weighs 602 pounds.

6. POWER SOURCE.—

A 12-volt storage battery provides power for the equipment. Dynamotor Unit PE-133-B converts the power to 230 volts for the radio receiver plate supply.

7. POWER INPUT.—

a. Radio Receiver BC-973-B—5.3 amperes at 12.6 volts.

b. Radio Receiver BC-1003-B—5.3 amperes at 12.6 volts.

8. POWER OUTPUT.—

a. Receiver without Control Unit RM-35-B—750 milliwatts.

b. Receiver with Control Unit RM-35-B—375 milliwatts.

9. DESCRIPTION OF MAIN COMPONENT PARTS.—

a. Antenna AN-45-F.—Antenna AN-45-F is a telescopic sense antenna which, when collapsed, is 16½ inches long, and extended is 96½ inches long. This antenna is vertically mounted on top of the loops by means of a stud screw.

b. Azimuth Scale M-333-B.—Azimuth Scale M-333-B is a circular scale 9/16 inch high and 11 inches in diameter, marked off in degrees from 0° to 360°. Mounted on this scale is a ½ inch handrail for the purpose of rotating the loop assembly. The azimuth scale indicates the amount of this angular rotation.

c. Battery.—The battery is a 12-volt storage battery.

d. Battery cable.—The battery cable consists of two leads, 5/32 inch in diameter. One lead is 16 inches long and the other, which contains a fuse and fuse cartridge, is 31 inches long. This cable connects the battery to the dynamotor.

e. Chest CH-103-B.—Chest CH-103-B is a hard fibre carrying case, fitted with compartments for the receiver and loop and other accessories. Two of these chests are provided. One contains Radio Receiver BC-973-B and associated equipment, and the other contains Radio Receiver BC-1003-B and its associated equipment. The contents of Chest CH-103-B are:

1	Compass MC-323-B
1	Control Unit RM-35-B
2	Cords CC-66
1	Cover BG-133-B
1	Cover BG-134-B
1	Headset HS-29-E
1	TM 11-246B, Technical Manual for Radio Set SCR-503-B (Direction Finding)
1	Microphone T-35 (Chest)
1	Bristol wrench
2	Pilot lamps, spare
1	Tube puller
1	Radio Receiver BC-973-B or BC-1003-B and Mounting Plate FT-363-B, with Loop LP-23-B or LP-33-B and Azimuth Scale M-333-B mounted.

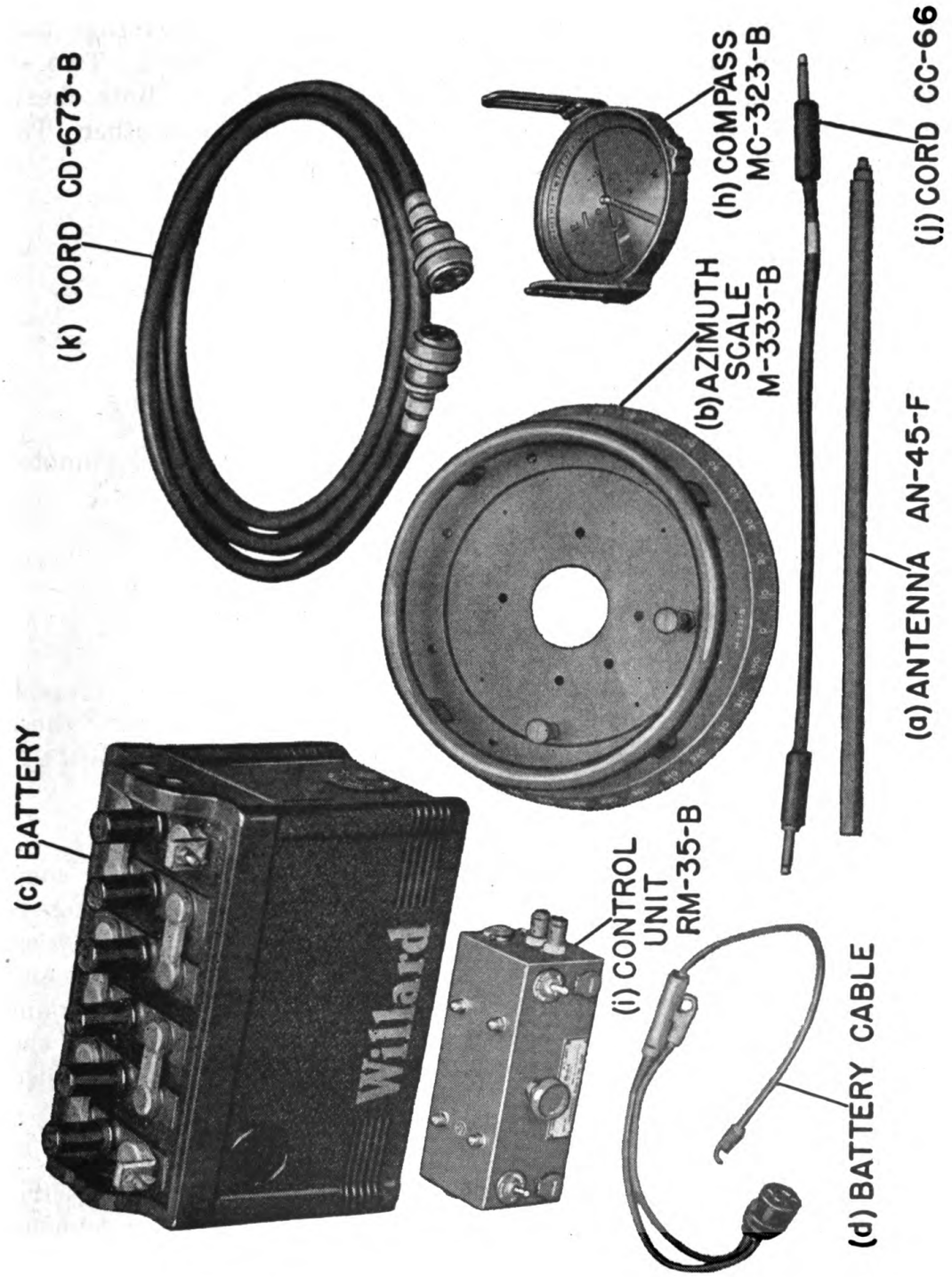


FIGURE 3. Radio Set SCR-503-B, components: a, b, c, d, h, i, j, and k.

f. Chest CH-113-B.—This chest is constructed of hard fibre, and is designed to carry Dynamotor Unit PE-133-B and a storage battery, and additional accessories for the direction finders. Two of these chests are provided, one for each direction finder. Both chests and contents are identical and interchangeable with each other. The contents of Chest CH-113-B are:

1	Antenna AN-45-F
1	Battery cable with fuse
1	Cord CD-673-B
1	Dynamotor Unit PE-133-B
2	Fuses, spare, for connection between battery and dynamotor unit
2	Tripods LG-15-B
1	12-volt storage battery, Willard RH-9-6

g. Chest CH-139-C.—Chest CH-139-C is constructed of plywood, and designed to carry a spare storage battery. There are two of these chests provided, each identical, and each containing one Willard 12-volt storage battery, type RH-9-6.

h. Compass MC-323-B.—Compass MC-323-B is a magnetic compass, 5 inches in diameter with a 4-inch needle. The compass is equipped with folding bearing sights. You can move the scale to set the proper corrections for the difference between true North and magnetic North (angle of declination). Provisions are made to mount the compass on Tripod LG-15-B, and two spirit levels in the face of the compass make it possible to level the compass. A compass is provided with each receiver.

i. Control Unit RM-35-B.—Control Unit RM-35-B contains electrical circuits for (1) connecting the output of the receiver to a telephone line, (2) connecting a microphone to the telephone line for the transmission of speech by wire, and (3) connecting head phones to the telephone line for the reception of speech over the wires. The circuits are contained in a metal housing $2\frac{7}{8}$x$7\frac{1}{4}$x$2\frac{3}{4}$ inches.

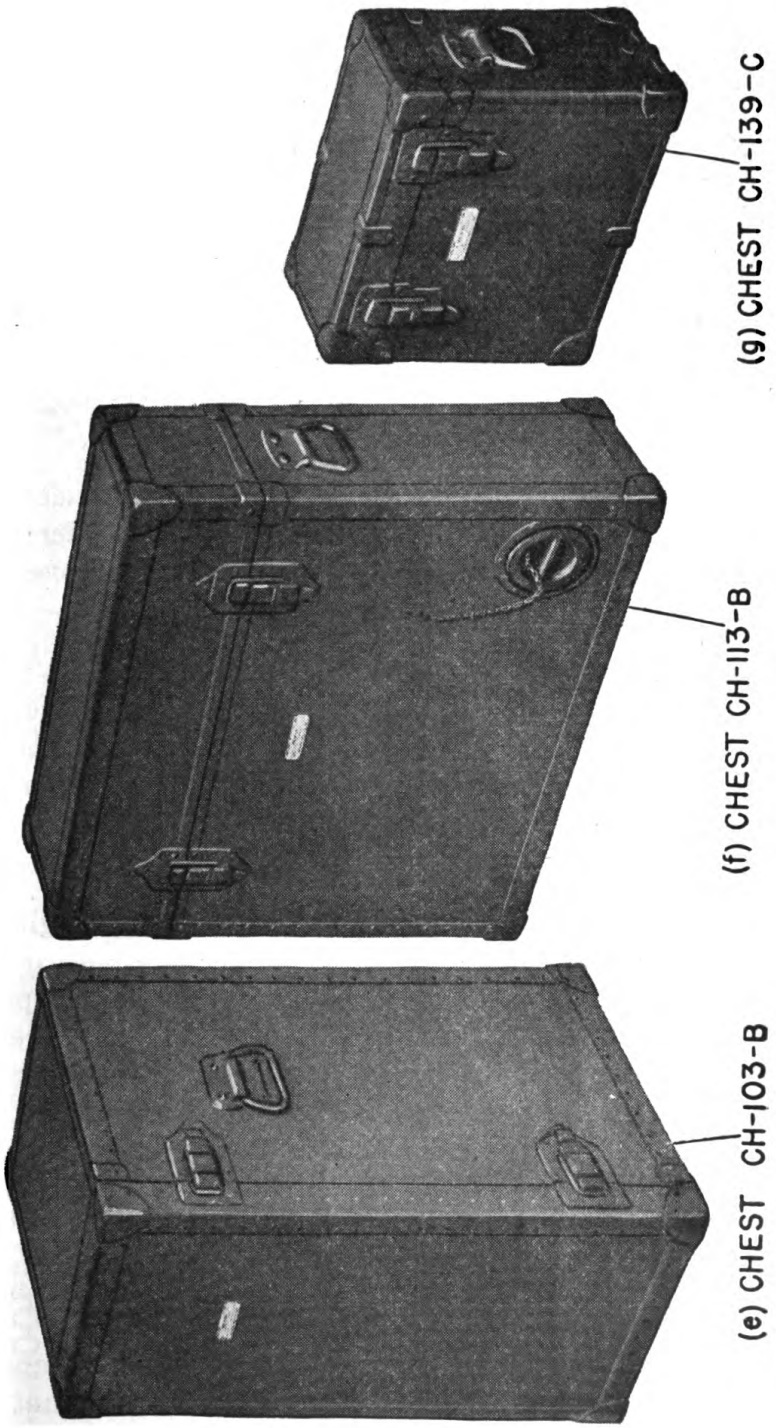


FIGURE 4. Radio Set SCR-503-B, components: e, f, and g.

j. Cord CC-66.—Cord CC-66 is a flexible, rubber-jacketed cord, inch in diameter and 20¾ inches long. It is terminated on each e with a phone plug. Two of these cords are used to make the electri connections between the receiver and the control unit.

k. Cord CD-673-B.—Cord CD-673-B is a flexible, four-conduct cable, terminated at each end by a Plug PL-89. It is used to conne the dynamotor power supply to the receiver. A cord is provided f each receiver.

l. Cover BG-133-B.—Cover BG-133-B is a canvas bag that fits ov the loop and receiver to protect it in wet weather. The equipme cannot be operated with this cover in place. One cover is provided f each receiver.

m. Cover BG-134-B.—Cover BG-134-B is a translucent vinyli cover designed to slip over the loops to improve the waterproofing i wet weather. You can operate the receiver with this cover in plac One cover is provided for each receiver.

n. Dynamotor Unit PE-133-B.—Dynamotor Unit PE-133-B co sists of a dynamotor designed to convert the storage battery voltag to the voltage necessary for the plate supply circuits in the receive It also contains a filter unit to suppress electrical noise generated b the dynamotor. The output is taken from a Socket SO-69 which fit the Plug PL-89 on Cord CD-673-B.

o. Headset HS-29-E.—Headset HS-29-E is a lightweight headse It consists of two sets of headphones interconnected by Cord CD-656-I and terminating in two Plugs PL-55. Each headphone earpiece has special soft rubber insert designed to fit into the ear. There shoul be just enough pressure of the inserts against the inner ears to form a partial seal against outside noises. The headband is a thin band o steel that can be adjusted and bent to fit the wearer's head. A cli attached to the cord is for clipping the headset to the clothing to re lieve pull and weight of the cord from the operator's ears. The head set either plugs into **OUTPUT** jacks on the front panel of the receive or into **PHONE** jacks on the front panel of the control unit.

p. Loop LP-23-B.—Loop LP-23-B is 11¼ inches high and consist of two fixed loops mounted at 90° to each other. It is mounted on an used with Radio Receiver BC-973-B. Bearing sights are mounted o the loop to help in orienting the direction-finding receiver with respec to true or magnetic North.

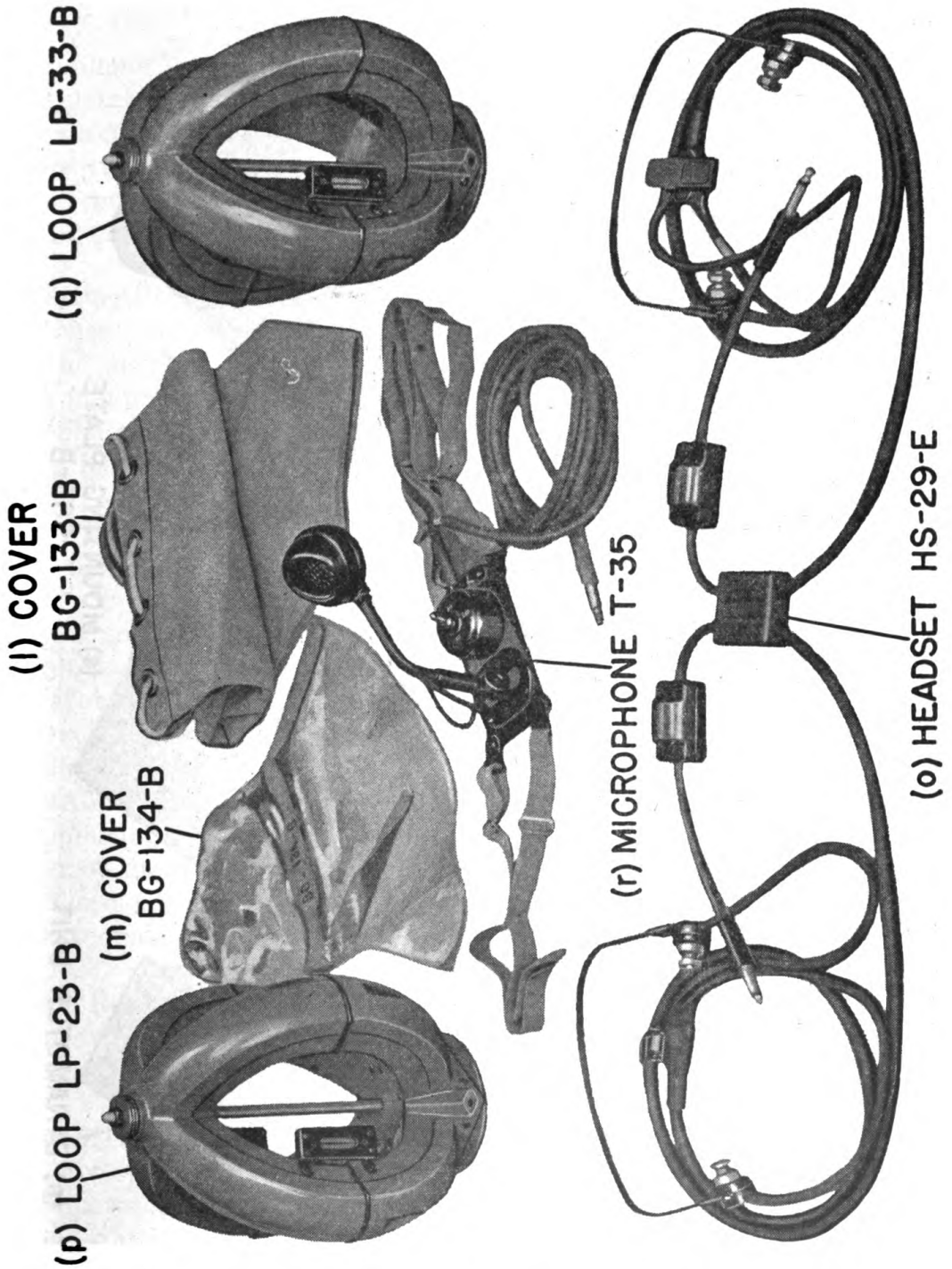


FIGURE 5. Radio Set SCR-503-B, components: l, m, o, p, q, and r.

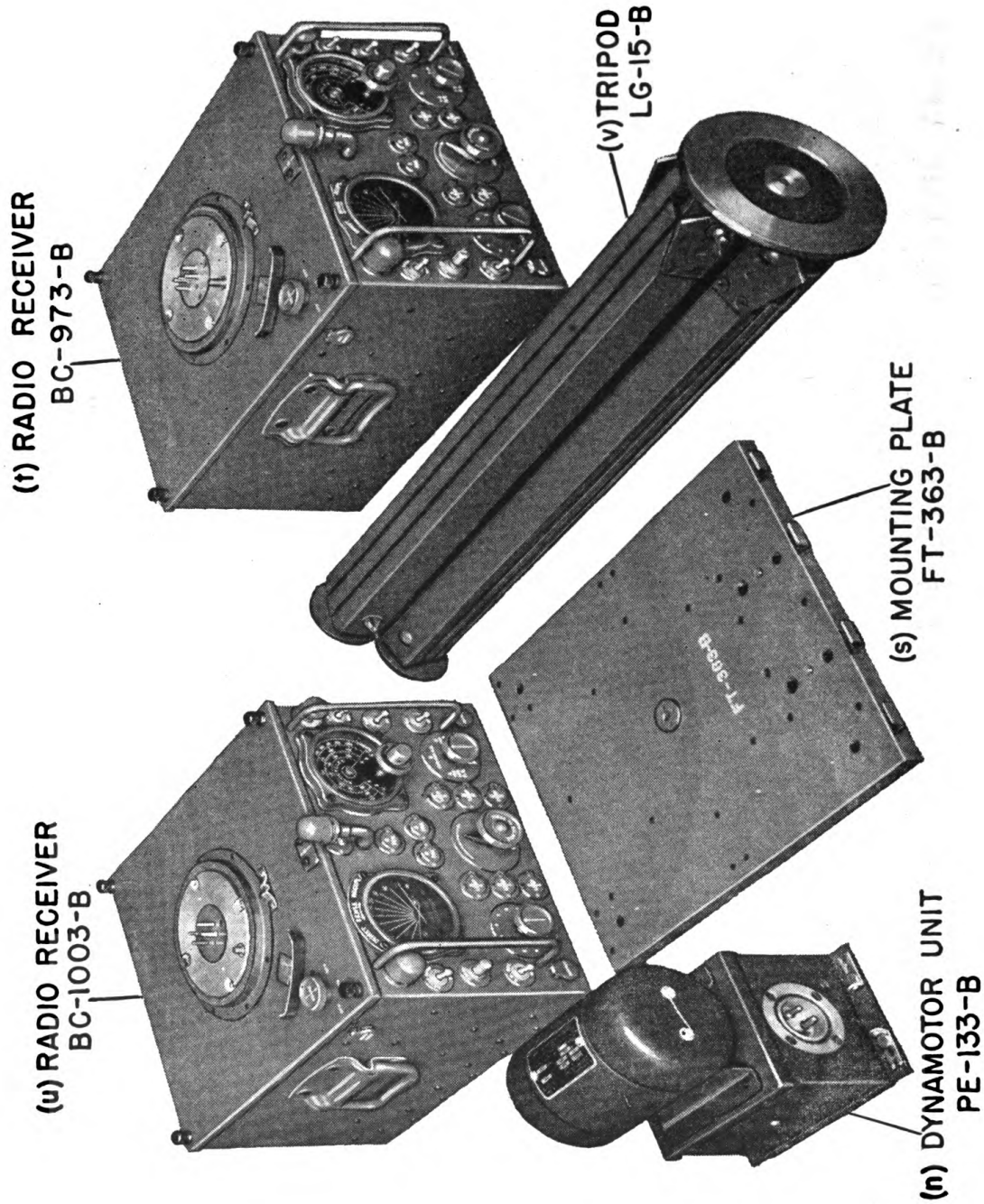


FIGURE 6. Radio Set SCR-503-B, components: n, s, t, u, and v.

Loop LP-33-B.—Loop LP-33-B is similar in appearance to Loop 23-B, but is mounted on and used with Radio Receiver BC-1003-B. ring sights also are mounted on this loop.

Microphone T-35.—Microphone T-35 is a chest-type microphone ı an adjustable strap to hold it in position on the chest of the oper-. It has a fixed **ON** and **OFF** switch position, and a manually oper- **ON** position which operates only when held in that position. The rophone connects to the jack marked **MICROPHONE** on the left panel of Control Unit RM-35-B.

. **Mounting Plate FT-363-B.**—Mounting Plate FT-363-B is a metal e 11 inches wide and 13 inches long which is equipped with sliding ts for the purpose of fastening the radio receiver securely to the of the mounting plate, and the control unit to the bottom. The unting plate fits on top of the tripod and is held securely in the ter by a hand-operated mounting screw.

. **Radio Receiver BC-973-B.**—Radio Receiver BC-973-B is a dual- nnel two-band superheterodyne receiver, designed for direction ling use. The frequency range is 1000 kc to 2000 kc on one band, 2000 kc to 3000 kc on the other band. A dual-pointer meter unted on the front panel is used as an indicator for direction find- . The front panel also mounts **PRESS TO BALANCE** and **VOL- IE** controls, a **FREQ. BAND** switch, direct calibrated frequency l, **SENSE** and **SENSITIVITY** controls, **ON-OFF, AVC-MVC, TER DAMP,** and pilot light switches. Provisions are made on the of the housing to fasten Loop LP-23-B. Socket SO-69 is provided the rear of the housing to connect the set to the power supply by ans of Cord CD-673-B. Jacks are also available to connect head- nes and to make the electrical connections to Control Unit RM-35-B.

ı. **Radio Receiver BC-1003-B.**—Radio Receiver BC-1003-B is simi- in appearance to Radio Receiver BC-973-B, except that the dial ers the frequency range of 100 kc to 1000 kc in three bands.

7. **Tripod LG-15-B.**—Tripod LG-15-B is used for mounting either adio receiver or a compass. Either of these is held secure by means a hand-operated mounting screw. The tripod has three adjustable oden legs which have a minimum length of 22¾ inches and a maxi- m extended length of 39½ inches. The mounting pedestal is a tal disc, ¼ inch thick and 5½ inches in diameter.

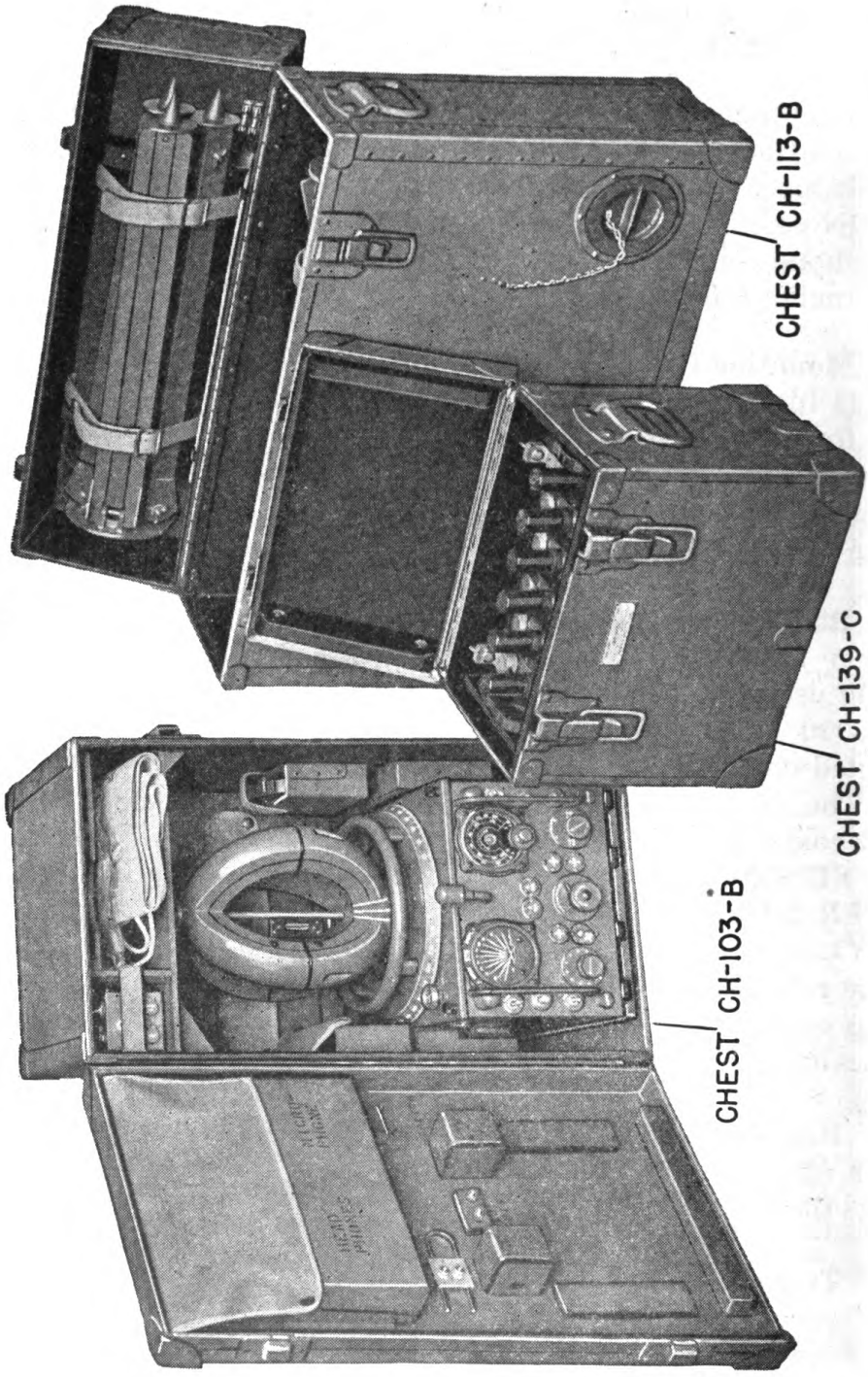


FIGURE 7. Chests CH-103-B, CH-139-C, and CH-113-B, open.

SECTION II

INSTALLATION AND OPERATION

INITIAL PROCEDURE.—

Select a location for this equipment as far away as possible from acles of all kinds and from masses of metal. A good location is a ll rise or hill from which there is no obstruction, especially in the eral direction from which you can reasonably expect to receive nals. The entire area should be free from buildings, large masses ock, overhead wires, wire fences, underground cables—if you can them—vehicles, railroad tracks, and so forth.

Don't try to operate from a hollow, dip, ditch, or dug-out. Keep ay from bridges and machinery. Remember that high trees, thick- jungle growth, and underbrush can also cause errors and false dings of direction. Keep away from shore lines or streams of water. ays keep in mind that the best location is on a hillock or rise in und in a territory where there is no great quantity of iron in the und. In any case, take up the best position available, and *remem- these points.*

Unpack the various units from the containers and inspect them make sure that no part has been damaged during shipment. Re- ve the shield covers from the radio receivers and clean or blow all dirt and dust from their interiors.

Be careful when installing this equipment. If it has been dam- d, turn it over to authorized personnel for repairs. Adjustment trols have been built on the front panels so that trained personnel make necessary repairs. Don't YOU touch them.

INSTALLATION.—

The following steps for installation refer to Radio Receiver -973-B and its associated equipment. Procedure for installation of dio Receiver BC-1003-B is the same.

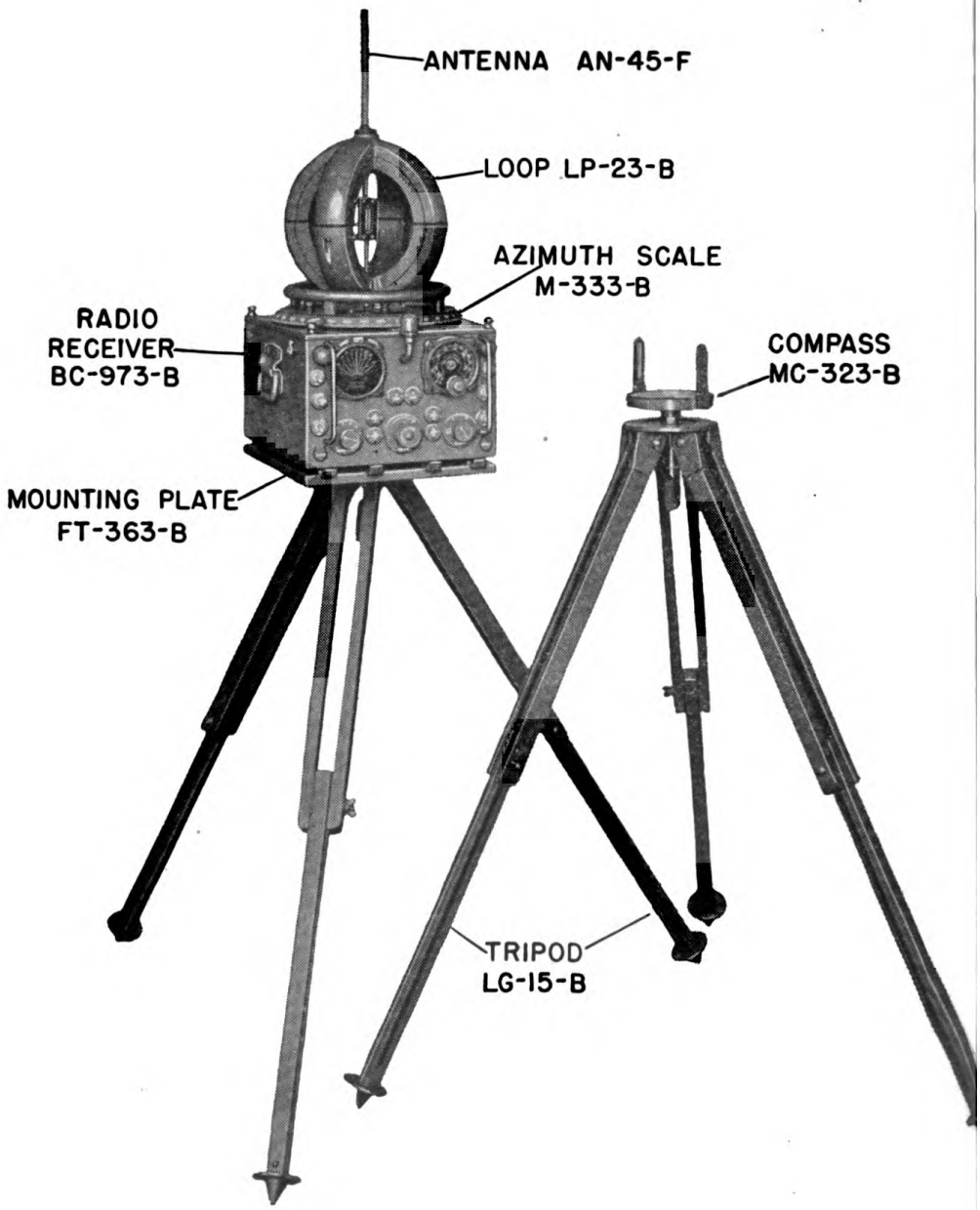


FIGURE 8. Receiver, loop, tripod, and antenna assembled. Compass and tripod assembled.

a. Radio Receivers BC-973-B and BC-1003-B, are shipped with tubes in sockets, and with the azimuth scale, loop, and bottom mounting plate in place. Steps in setting up this equipment for use are as follows:

(1) **Tripods.**—Remove the two Tripods LG-15-B from Chest CH-113-B. Loosen wing nuts near the lower end of the tripod legs, extend the legs to a convenient height, tighten wing nuts, and place in an upright position.

(2) **Radio receiver, loop, azimuth scale, and mounting plate.**—Remove Radio Receiver BC-973-B, Loop LP-23-B, Azimuth Scale M-333-B, and Mounting Plate FT-363-B intact from Chest CH-103-B by unsnapping the retaining strap near the top of the loop, and pulling forward on the entire assembly. Now place the assembly on top of one of the tripods. Fasten securely by means of the hand-operated mounting screw in the center of the mounting pedestal on the tripod.

(3) **Sense antenna.**—Remove telescopic sense Antenna AN-45-F from cover of Chest CH-113-B and fasten it to the stud screw that projects from the top of Loop LP-23-B.

(4) **Power cord.**—Remove the 10-foot Cord CD-673-B from Chest CH-113-B and connect one end to the socket on the rear of the receiver. Connect the other end to the dynamotor filter socket, which is exposed by removing the captive metal plug from the front of Chest CH-113-B. INSERT CABLE PLUG CAREFULLY. Contact between the shell of the plug and two of the prongs of Socket SO-69 can cause a short and blow out the fuse.

(5) **Battery.**—BATTERY FILLER PLUGS AND TUBES MUST BE KEPT TIGHT AND IN PLACE UNTIL THE BATTERY IS TO BE PREPARED FOR SERVICE.

The electrolyte must be a solution of sulphuric acid and water sufficiently pure and suitable for storage battery use.

(a) Prepare the battery for use according to the following instructions:

1. Unscrew filler plugs and remove and discard tubes; never replace these tubes.

2. Fill each cell with electrolyte having a specific gravity as shown in table, using Safety-Fill filling method. The electrolyte temperature when filling must not be lower than 60° nor higher than 90° F. (15.6° and 32° C.).

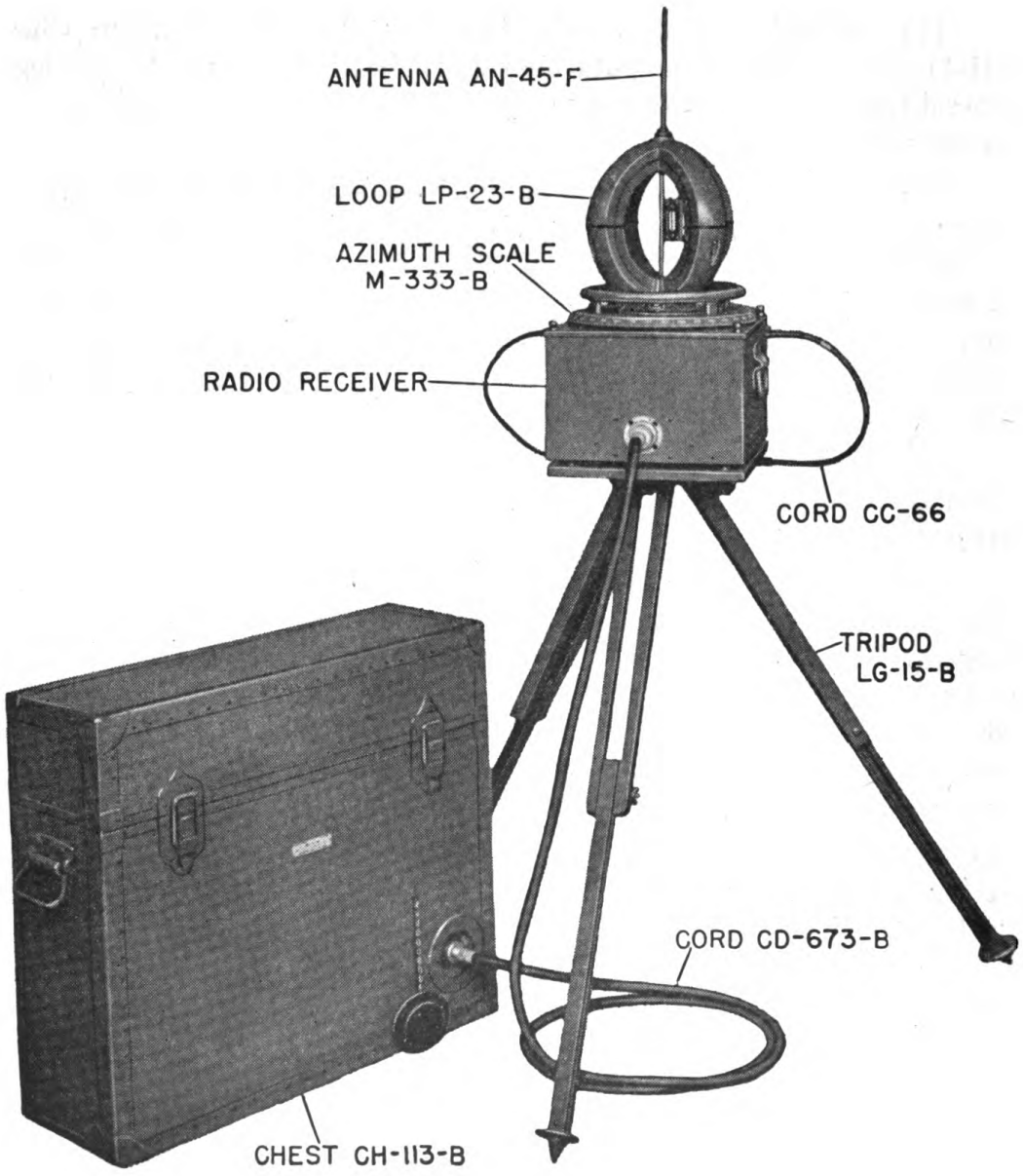


FIGURE 9. Cord connections.

	Temperate Climate	Tropical Climate
illing Gravity	1.265 sp. gr. (30.4° Be.)	1.200 sp. gr. (24.2° Be.)
Max. Temp.	110° F. (43° C.)	125° F. (52° C.)
inal Gravity	1.270-1.290 (31°-33° Be.)	1.200-1.225 (24°-26.5° Be.)

3. Allow battery to stand from 8 to 16 hours.

4. After cooling, restore electrolyte level by adding dis-led or approved water to the cells, using Safety-Fill filling method.

5. Replace and tighten filler plugs in filler well.

6. Connect POSitive terminal of battery to positive (+) charging source and NEGative terminal to negative (—) of charg-g source.

7. CHARGE BATTERY at a rate of 10 amperes per hour til SPECIFIC GRAVITY STOPS RISING. This will require ap-oximately 30 hours.

8. If temperature of electrolyte exceeds limit shown in ble, reduce charging rate and increase time proportionately.

9. If it is necessary to restore electrolyte level during arge, use only approved water.

10. After the completion of charge, the specific gravity the electrolyte should be within the limits shown in the table. If is not, adjust by removing some solution and replacing with ap-oved water or electrolyte as required. Charge in order to mix solu-on before testing again and restore level, using Safety-Fill filling ethod.

11. Wash off top of battery to remove any spilled electrolyte.

(b) Check wiring between battery and dynamotor.

(6) Compass.—Remove Compass MC-323-B from Chest H-103-B, and mount it on the top of the second tripod. The compass provided with an adapter in the mounting bushing so that it will the tripod mounting screw.

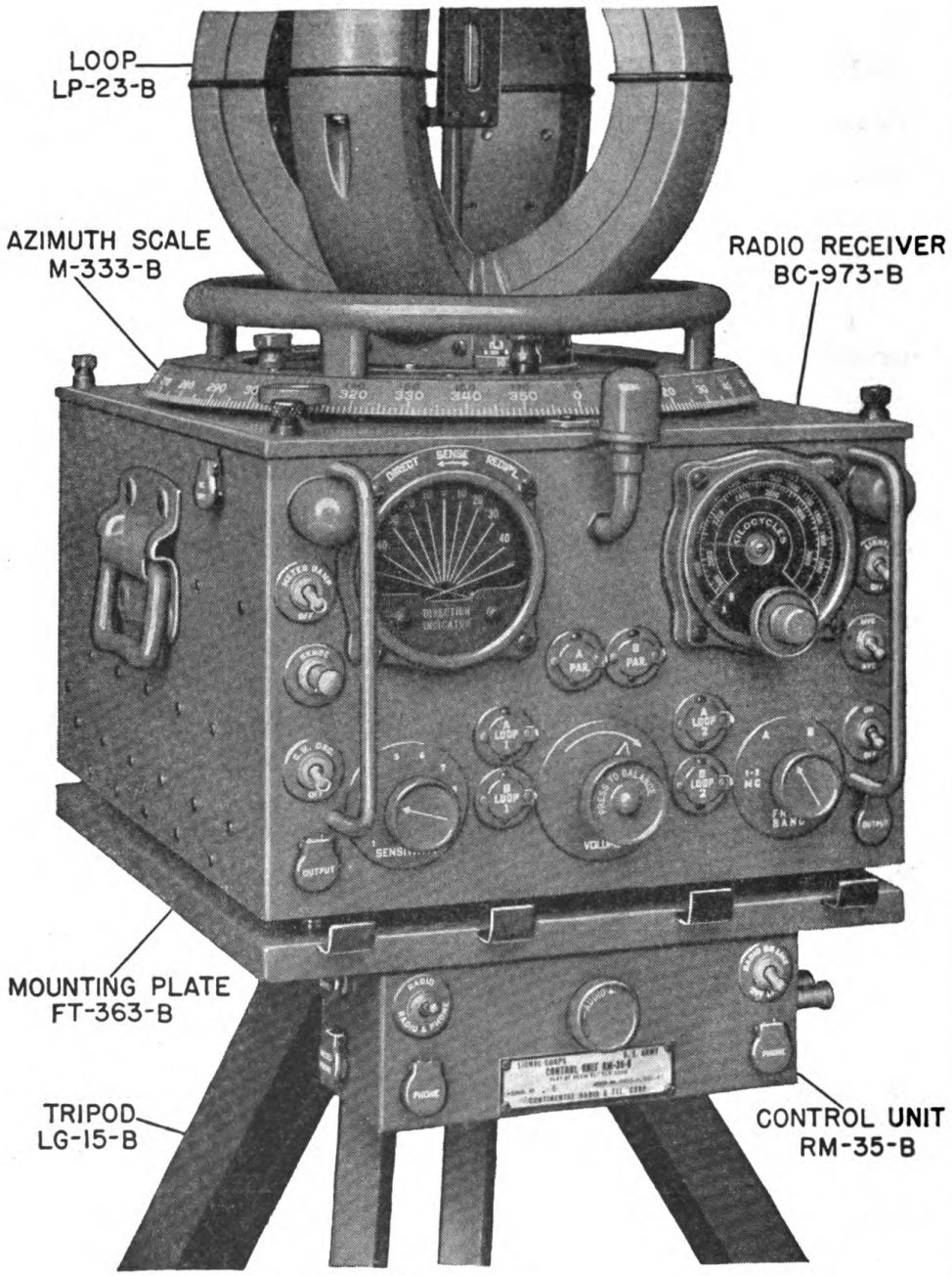


FIGURE 10. Control Unit RM-35-B, mounted.

(7) **Headset.**—Remove Headset HS-29-E from cover of Chest CH-103-B and plug it into the jacks marked **OUTPUT** on the front panel of the receiver.

b. The set is now completely assembled. If you wish to connect into a telephone line, it is necessary to do the following:

(1) **Control unit.**—Remove Control Unit RM-35-B from the upper left corner of Chest CH-103-B. Mount it to the underside of Mounting Plate FT-363-B (fig. 10) and lock it in position by pushing the two center slide fasteners forward. Connect the control unit to the receiver by means of the two patching Cords CC-66, which are stored in Chest CH-103-B. Connect one patching cord from jack marked **OUTPUT** on the right side panel of the receiver to the jack marked **RADIO SET** on the right side panel of the control unit. Connect the other patching cord from the jack marked **MIC. SUPPLY** on the left side panel of the receiver to the jack marked **MIC. SUPPLY** on the left side panel of the control unit.

(2) **Headset.**—Now plug Headset HS-29-E, which previously connected into the **OUTPUT** jacks on the front panel of the receiver, into the **PHONE** jacks on the front panel of the control unit.

(3) **Microphone.**—Remove Microphone T-35 from cover of Chest CH-103-B, and plug into the **MICROPHONE** jack on the left side panel of the control unit.

(4) **Telephone line.**—Connect the two leads from the telephone line to the binding posts marked **L1** and **L2** on the right side panel of the control unit. If the telephone line terminates in a phone plug, however, plug it into the **LINE** jack.

12. PREPARATION FOR OPERATION.—

a. Orientation of the receiver.—Orientation of the equipment with respect to North means the rotation of the equipment to the proper position, so that a North bearing will give a zero reading on the azimuth scale.

To determine the direction of a transmitter, first find either true North or magnetic North, and then orient the receiver so that zero degrees on the azimuth scale will correspond to North. After this is done, any azimuth taken on the direction finder will be a measurement of the angle between North and a line pointing toward the transmitter, and may be plotted on a map accordingly.

(1) Orientation of the receiver with respect to magnetic North.—

(a) Loosen the knurled knob on the bottom of Compass MC-323-B so that the needle swings freely.

(b) Use a small wire or pin to turn the adjustment knob on the lower right side of the compass so that the compass scale rotates. Set the index point marked zero on the vernier scale opposite the zero degree point on the compass scale. After this adjustment, the scale should appear as shown in figure 11. This is the correct setting to orient on magnetic North. Do not use this setting to orient on true North.

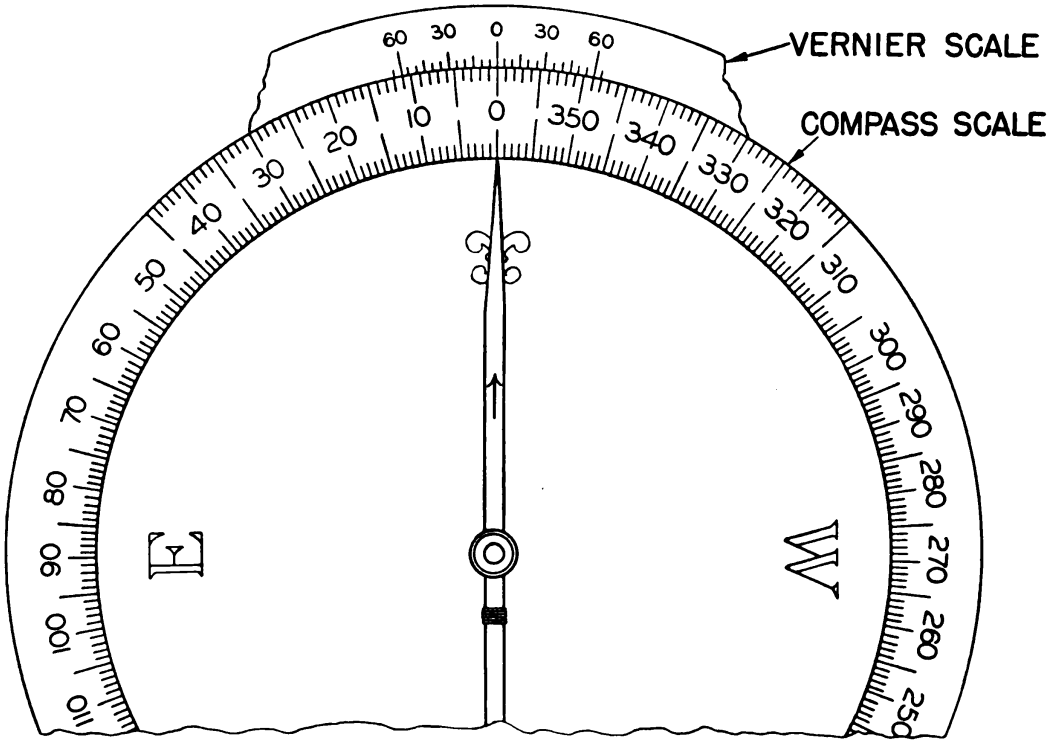


FIGURE 11. Compass setting to orient on magnetic North.

(c) Place the compass, mounted on its tripod, on the spot where you are going to operate the direction finder. KEEP THE RECEIVERS AND ALL OTHER OBJECTS MADE OF MAGNETIC MATERIALS AT LEAST TEN FEET AWAY FROM THE COMPASS.

(d) Level the compass. Watch the two spirit levels on the face of the compass, and adjust the tripod legs until the air bubbles are centered.

(e) Loosen the mounting screw under the compass, and rotate the compass until the zero point on the compass scale lines up with the north-seeking end of the pointer. This end of the pointer is identified by a small arrow on it. Be sure the pointer and the zero on the compass scale line up correctly. DO THIS ACCURATELY. Now tighten the mounting screw.

(f) Sight North through the sights on the compass. Have someone drive a stake directly in line with the sights, not less than twenty-five yards away.

(g) Remove the compass and its tripod and place either Radio Receiver BC-973-B or Radio Receiver BC-1003-B, mounted on its tripod, in exactly the same spot.

(h) Level the receiver as accurately as possible by adjusting tripod legs. Face the controls on receiver in any convenient direction.

(i) Release the **LOOP LOCK** by lifting it and turning it slightly. Line up the zero of the azimuth scale with the zero index marker. Set the **BRAKE** to **ON** position. Release the **SCALE LOCK** by turning it in a counterclockwise (to the left) direction. Rotate the loop so that the loop sights are lined up with the stake (par. 12a(1)(f). **THE SIGHT WITH THE NARROW SLIT MUST BE NEAREST THE EYE.** The eccentric screws on these loops sights are set in exact positions and sealed. If the sights are damaged, return the loop to the depot for repairs. **DO NOT ATTEMPT TO LINE UP THE SIGHTS ON THE FIELD.** Tighten the **SCALE LOCK** and release the **BRAKE,** and then check to see if the azimuth zero is in zero position when the sights are in line with the stake. If you need to make further adjustments, do so. ACCURACY IS IMPORTANT.

The equipment is now oriented with respect to magnetic North.

(2) Orientation of the receiver with respect to true North.—

(a) It is sometimes necessary to orient the equipment with respect to true North instead of magnetic North. To do this, you must know the angle of magnetic declination for the locality in which the equipment is to be operated. This correction is shown on military maps and is made on the compass declination adjustment. Proceed as in orientation to magnetic North. Loosen the knurled knob on the bottom of the compass so that the needle swings freely. BUT DON'T SET THE ZERO ON THE VERNIER SCALE OPPOSITE THE ZERO ON THE COMPASS SCALE. Instead, make a correction adjustment as follows:

1. If the magnetic declination is 3 degrees East, rotate the compass scale 3 degrees clockwise (to the right) so that the zero on the vernier scale is opposite the 3-degree mark on the compass scale.

2. If the magnetic declination is 3 degrees West, rotate the compass scale 3 degrees counterclockwise (to the left) so that the zero on the vernier scale is opposite the 357-degree mark on the compass scale.

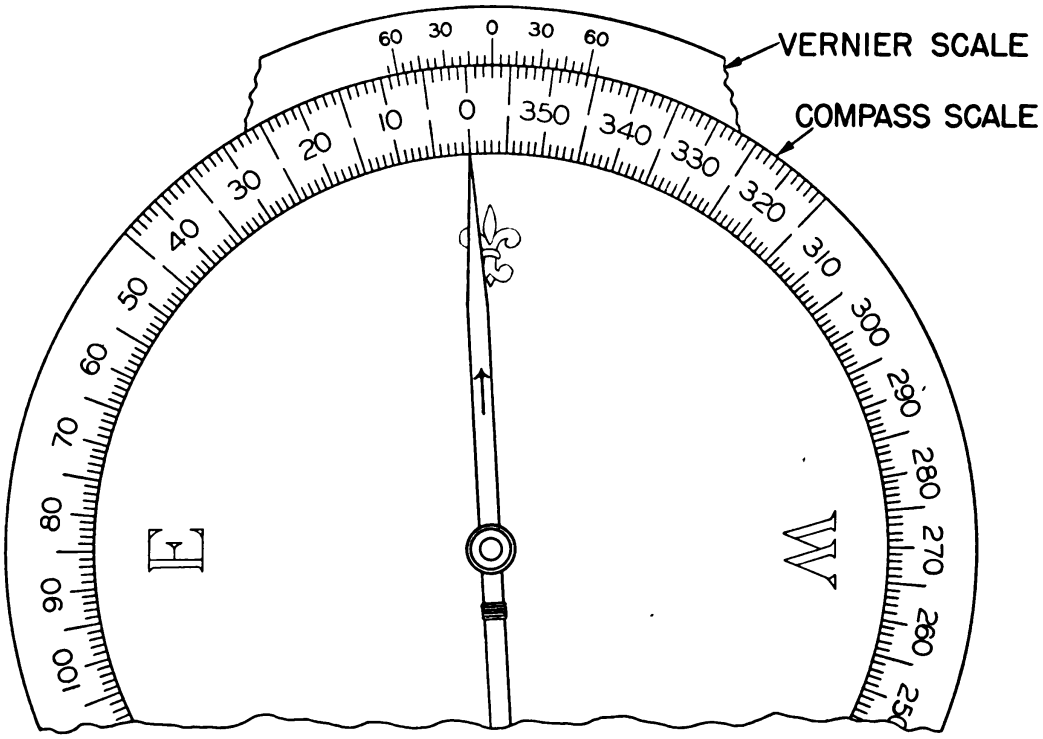


FIGURE 12. Compass setting to orient on true North with a magnetic declination of 3 degrees West.

(b) Now follow all the other steps as in orientation to magnetic North. Place the compass, mounted on its tripod, on the spot where you are going to operate. Level the compass, and rotate it until the zero on the compass scale is lined up with the arrow-tipped end of the pointer. **BE SURE THAT THE COMPASS POINTER CORRESPONDS TO THE COMPASS SCALE ZERO AND NOT THE INDEX OR VERNIER SCALE ZERO LINE** (fig. 12).

REMEMBER:

When using compass keep it at least 10 feet away from the re-ver or any other magnetic material.

When the compass is not in use, the needle should be held in a ed position by means of the knurled knob on the bottom.

IDENTIFICATION OF CONTROLS.—

a. Receiver, top cover.—

(1) BRAKE.—The **BRAKE** at the left front corner holds the muth scale in position.

(2) LOOP LOCK.—The **LOOP LOCK** is located on the top of e azimuth scale and keeps the loop locked in position while the imuth scale is moved or when the equipment is in transit.

(3) SCALE LOCK.—The **SCALE LOCK** is also on the top of the imuth scale, and locks the scale and loop together. When the **LOOP)CK** is released, the two are free to rotate together.

b. Receiver, front panel.—

(1) OUTPUT jacks.—An **OUTPUT** jack is in the lower left and ght-hand corners respectively.

(2) ON-OFF switch.—The power **ON-OFF** toggle switch is lo-ted in the lower right-hand corner, directly above the **OUTPUT** ck.

(3) PRESS TO BALANCE and VOLUME control.—The **PRESS) BALANCE** and **VOLUME** control is located at the lower center of e panel. This control is used to balance the gain in the two channels id also to control the volume.

(4) FREQ. BAND switch.—The **FREQ. BAND** switch is located the lower right.

(5) SENSITIVITY control.—The **SENSITIVITY** control is at ie lower left.

(6) Tuning control and frequency dial.—The tuning control and equency dial is calibrated in kilocycles and located at the upper ght.

(7) AVC-MVC switch.—The **AVC-MVC** (automatic volume con-ol-manual volume control) toggle switch is at the right, directly ove the **ON-OFF** switch.

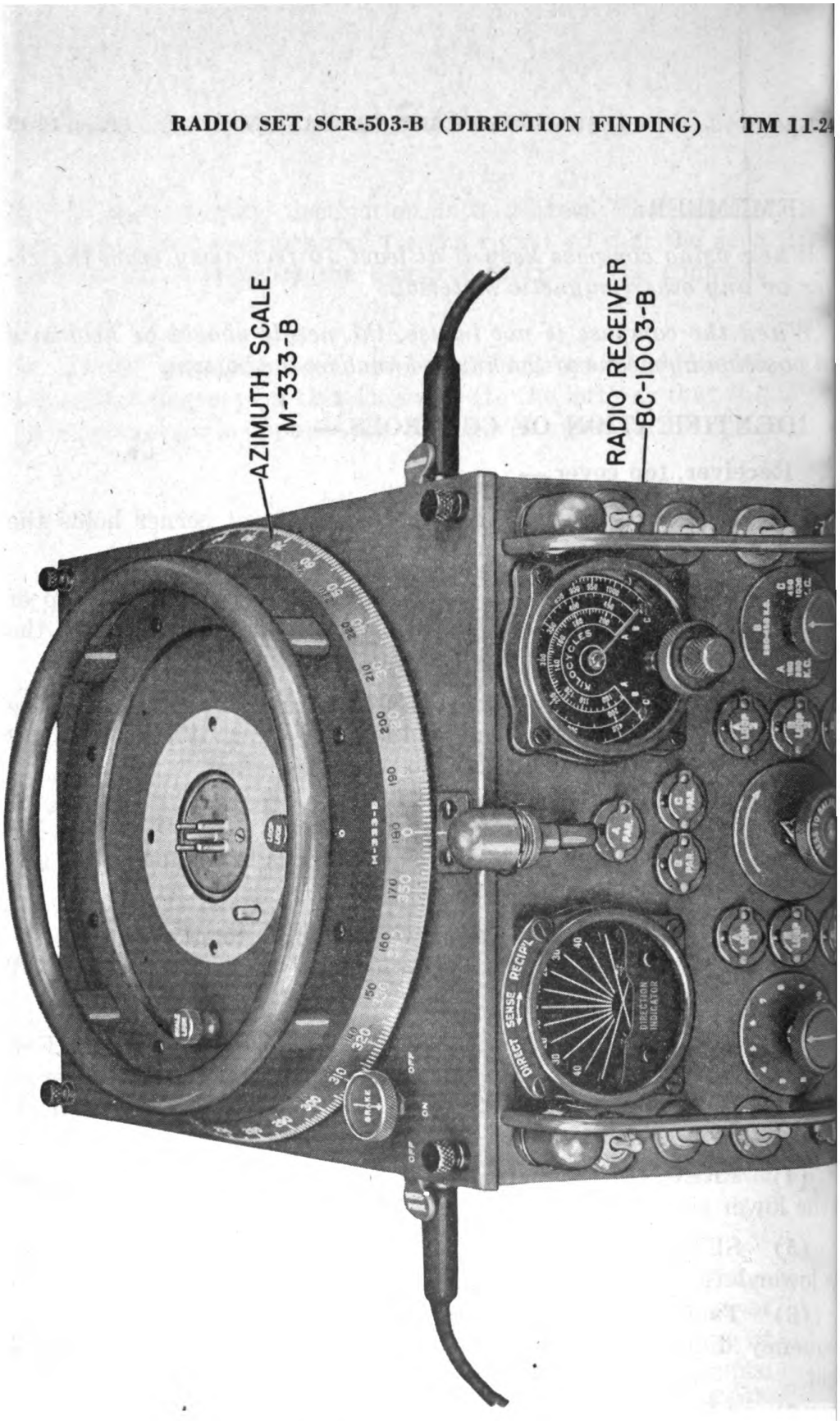


FIGURE 13. Radio receiver BC-1003-B, controls.

(8) LIGHTS-OFF switch.—The **LIGHTS-OFF** switch is located just above the **AVC-MVC** switch.

(9) C.W. OSC.-OFF switch.—The C.W. OSC.-OFF (code-modulated signal toggle switch is at the left just above the **OUTPUT** jack.

(10) SENSE button.—The **SENSE** button is at the left directly above the **C.W. OSC.-OFF** switch.

(11) METER DAMP-OFF switch.—The **METER DAMP-OFF** toggle switch is located at the left just above the **SENSE** button.

(12) DIRECTION INDICATOR.—The **DIRECTION INDICATOR** or bearing meter is at the upper left.

(13) Oscillator trimmers.—The oscillator trimmers, both parallel and series for the A, B, and C bands, are centrally located between the **DIRECTION INDICATOR** and the frequency dial. (The B and C band series trimmers are located under the top cover.)

(14) Loop trimmers.—The loop trimmers for frequency bands A, B, and C are located on each side of the **PRESS TO BALANCE** and **VOLUME** control.

The oscillator and loop trimmers are for use in the alignment of the receiver only, and take no part in direct operation of the receiver.

CAUTION: Don't tamper with trimmers unless alignment is called for. The loop trimmers have been built on the front panel so that the loops may be adjusted in case of damage or if they are out of alignment. DON'T YOU TOUCH THEM.

c. Receiver, side panel.—

(1) OUTPUT jack.—An **OUTPUT** jack is located on the right side panel.

(2) MIC. SUPPLY jack.—A **MIC. SUPPLY** jack is located on the left side panel.

d. Control unit, front panel.—

(1) AUDIO control.—The **AUDIO** control, which controls the volume of speech, is in the center of the panel.

(2) RADIO-RADIO & PHONE switch.—The **RADIO-RADIO & PHONE** switch is in the upper left hand corner.

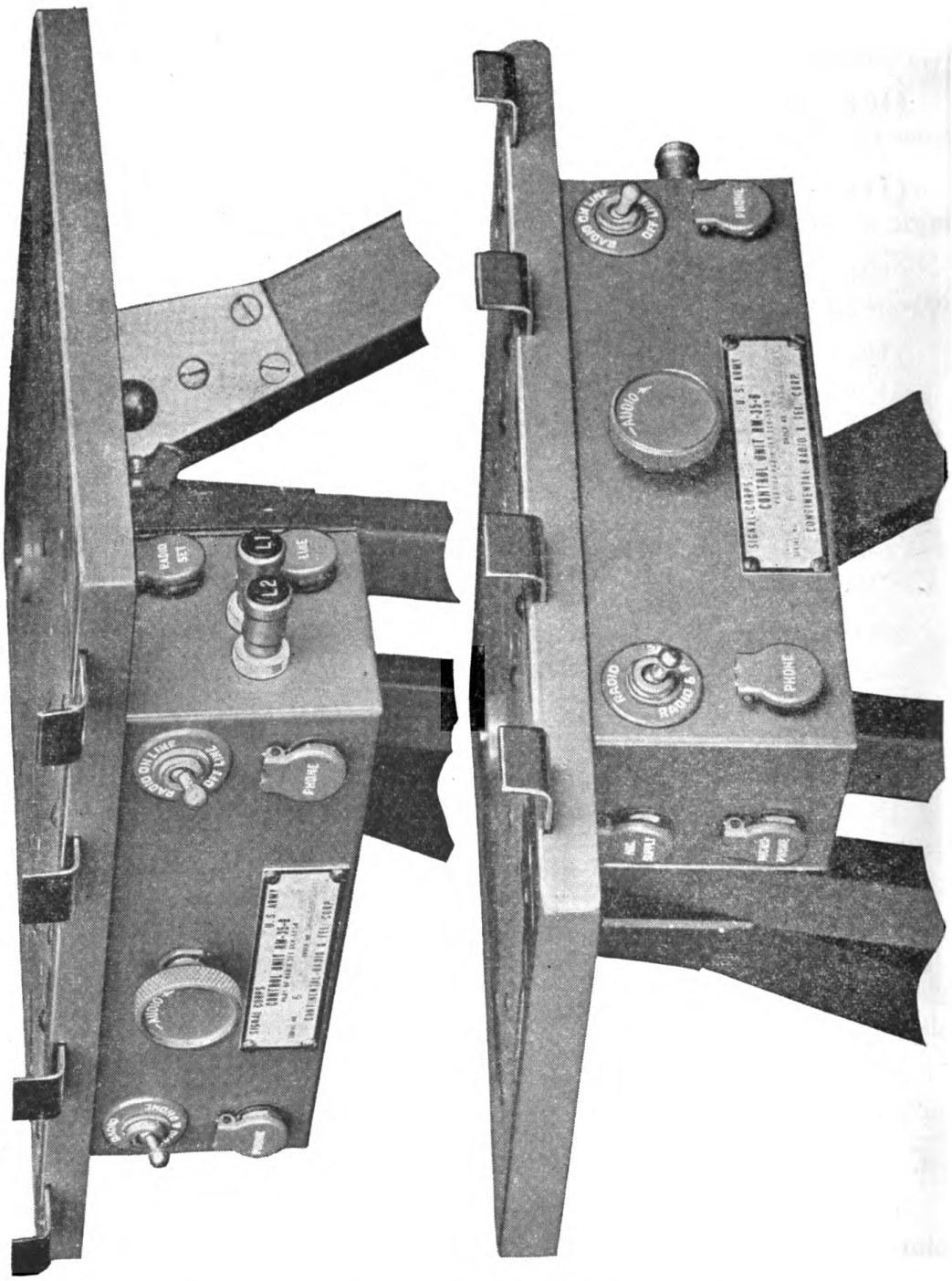


FIGURE 14. Control Unit RM-35-B, controls.

(3) **RADIO ON LINE-OFF LINE switch.**—The **RADIO ON LINE-OFF LINE** switch is in the upper right hand corner.

(4) **PHONE jacks.**—A **PHONE** jack is in the lower left and right hand corners respectively.

e. Control unit, left side panel.—

(1) **MIC. SUPPLY jack.**—A **MIC. SUPPLY** jack is at the top of the panel.

(2) **MICROPHONE jack.**—A **MICROPHONE** jack is at the bottom of the panel.

f. Control unit, right side panel.—

(1) **Line terminals.**—Line terminals **L1** and **L2** for the telephone line are located near the center of the panel.

(2) **RADIO SET jack.**—A **RADIO SET** jack is at the top of the panel.

(3) **LINE jack.**—A **LINE** jack is at the bottom of the panel.

14. OPERATING INSTRUCTIONS AND PRECAUTIONS.—

a. Tuning in a station of known frequency.—

(1) Throw the **ON-OFF** power switch on the lower right hand side of the front panel of the receiver to the **ON** position. This will start Dynamotor Unit PE-133-B and apply voltage to the tubes. It takes about 30 seconds for the tubes to warm up.

(2) Throw the **LIGHTS-OFF** switch to **LIGHTS** if you need light. Leave the **METER DAMP-OFF** and **C.W. OSC.-OFF** switches on **OFF** when tuning in a modulated signal.

(3) Throw the **AVC-MVC** switch to **AVC.**

(4) Turn the **SENSITIVITY** control up to 10.

(5) Adjust the **VOLUME** control to maximum, or to a comfortable volume level for understandable reception, by turning the knob in a clockwise (to the right) direction.

(6) Set the **FREQ. BAND** switch to the proper frequency range, and tune in the desired station by turning the frequency dial to the correct frequency. *IF YOU CANNOT LOCATE THE TRANSMITTER IMMEDIATELY, SEARCH A FEW KILOCYCLES ABOVE AND BELOW THE PROPER DIAL FREQUENCY.*

(7) If the meter pointers of the **DIRECTION INDICATOR** go off scale (which usually happens except in the case of very weak stations) reduce the sensitivity immediately by turning the **SENSITIVITY** control knob in a counterclockwise (to the left) direction, until the pointers intersect near the center of the dial.

(8) Turn the **AVC-MVC** switch to **MVC**, and readjust the **SENSITIVITY** control if necessary.

(9) Readjust the frequency dial for **maximum DIRECTION INDICATOR** deflection (resonance) which indicates correct tuning for the station. TUNE IN THE STATION ACCURATELY.

(10) If the desired station is sending c-w signals, turn the beat oscillator switch to **C.W. OSC.** If the code is being sent slowly it is also necessary to throw the **METER DAMP-OFF** switch to **METER DAMP.** This meter damping reduces the amount of pointer fluctuation due to the code signal.

b. Tuning in an unknown station.—Many times it is desirable to patrol the frequency bands covered by the receiver by listening for signals from enemy stations instead of tuning in a transmitter of known frequency. To do this, tune very slowly across the band with the **AVC-MVC** switch on **MVC**, the **SENSITIVITY** at maximum, and the **VOLUME** control as near to maximum as the noise level will permit.

c. Taking an azimuth.—

(1) Tune in the station very carefully.

(2) Adjust the **SENSITIVITY** control so that the pointers on the **DIRECTION INDICATOR** cross on the upper half of the meter scale.

(3) MAKE SURE THAT THE **AVC-MVC** SWITCH IS ON **MVC.**

(4) Press the **PRESS TO BALANCE** control knob. If the pointers collapse, the direction or azimuth is incorrect by 90° and the loop must be rotated either direction through 90°. The pointers will again intersect on the 0° line, but they will not collapse when the **PRESS TO BALANCE** control knob is depressed.

(5) Push the **PRESS TO BALANCE** control knob in and turn it clockwise or counterclockwise until the pointers intersect on the 0°

orange center line. The gain in the two channels of the receiver is then balanced. Release the control knob and if the pointers do not cross on the 0° line, ROTATE THE LOOP ASSEMBLY UNTIL THEY DO. BE SURE THAT THE POINTERS CROSS **EXACTLY** ON THE 0° LINE WHEN THE **PRESS TO BALANCE** CONTROL KNOB IS DEPRESSED. IF NECESSARY, REPEAT BALANCE AND LOOP ADJUSTMENTS. The azimuth scale will now indicate in degrees either the *direct* or the *reciprocal* azimuth.

(6) Extend the vertical sense antenna.

(7) Press the **SENSE** button, and if the intersection of the pointers swings to the *left* (marked **DIRECT** above the meter), the loop sights are sighting directly toward the transmitter. Read the angle on the lower *white* azimuth scale. If, on the other hand, the pointer intersection swings to the *right* (marked **RECIP'L** above the meter), the loop sights are pointing directly away from the transmitter. Read the correct angle on the upper small *red* reciprocal scale. It is possible to rotate the loop 180° and read this same angle on the white scale.

d. Operation with a fixed loop.—Operation with a fixed loop is sometimes required in order to take rapid bearings on moving transmitters, on transmitters operating for a short time, and for homing purposes. In any of these cases, use the position of the pointer intersection on the **DIRECTION INDICATOR** scale to read up to 40 degrees to the right or left of the position toward which the loop sights are pointing.

(1) To take fast bearings.—

(a) Prepare Radio Set SCR-503-B for operation as described in **paragraph 12.**

(b) Tune in the station, and rotate the loop until the sights are pointing in the approximate direction of the station. If the approximate direction is not known, determine it by taking a sense bearing (par. **14c**).

(c) Balance the receiver in the regular manner (pars. **14c(4)** and **14c(5).**

(d) Release the **PRESS TO BALANCE** control and note the position of the pointer intersection on the **DIRECTION INDICATOR**, and estimate the number of degrees to the right or left of the zero center line.

1. If the pointers intersect to the left of the zero center line, subtract this approximate reading from the azimuth scale reading.

2. If the pointers intersect to the right of the zero center line, add this approximate reading to the azimuth scale reading.

(e) If the transmitter is moving, observe the movement of the pointer intersection to determine the rate of change of the azimuth.

(2) Procedure for homing purposes.—

(a) Mount the set in a mobile unit and tune in the station.

(b) Determine the approximate direction of the station by a quick azimuth reading and sense bearing in the normal manner (par. **14c**).

(c) Rotate the loop so that the sights point in the direction of travel and set the **BRAKE** to **ON.**

(d) If you are traveling directly toward the station, the pointer intersection will cross on the zero center line.

(e) If the station is to the left of the line of travel, the pointers will cross at a point to the left of the zero center line. This approximate reading on the **DIRECTION INDICATOR** will denote the number of degrees that you are off your course.

(f) If the station is to the right of the line of travel, the pointers will intersect at a point to the right of the zero center line. This approximate reading on the **DIRECTION INDICATOR** will denote the number of degrees that you are off your course.

TRAVEL TOWARD THE STATION AS DIRECTLY AS ROADS OR TERRAIN WILL PERMIT.

(g) Eliminate false or reciprocal azimuths by CONTINUALLY CHECKING THEM WITH THE BALANCE AND SENSE CONTROLS (pars. **14c(4)** to **14c(7)**).

e. Single channel operation.—Either loop may be used to obtain azimuths by the single channel or null method if the other loop circuit becomes damaged or inoperative. The **PRESS TO BALANCE** control cannot be of use when only one channel is operating. Determine which loop is operating by watching the pointer that moves on the **DIRECTION INDICATOR.**

(1) Left pointer operating.—*Use the following procedure only when the left pointer is used to determine the azimuths:*

(a) Tune in the signal.

(b) Depress the **SENSE** button and find the maximum pointer deflection by rotating the loop. This will be the approximate azimuth.

(c) Release the **SENSE** button. Rotate the loop counterclockwise so as to reduce the azimuth scale reading by approximately 45°, and determine the null point (collapse of pointer). To get an accurate null, increase the sensitivity by turning the **SENSITIVITY** control in a clockwise (to the right) direction.

(d) Add 45° to the azimuth scale reading thus found. This will determine the direction of the transmitter.

(2) Right pointer operating.—*Use the following procedure only when the right pointer is used to determine the azimuths:*

(a) Tune in the signal.

(b) Depress the **SENSE** button and find the maximum pointer deflection by rotating the loop. This will be approximately the reciprocal azimuth.

(c) Release the **SENSE** button. Rotate the loop counterclockwise so as to reduce the azimuth scale reading by approximately 135°, and determine the null point (collapse of pointer). To get an accurate null, increase the sensitivity by turning the **SENSITIVITY** control in a clockwise (to the right) direction.

(d) Subtract 45° from the azimuth scale reading thus found. This will determine the direction of the transmitter.

f. Operating the control unit.—Control Unit RM-35-B makes it possible to (1) speak over the telephone line, (2) receive information from the line, and (3) connect the output of the receiver to the telephone line. The various uses of the control unit and the method of operation are as follows:

(1) To speak over the telephone line.—

(a) Throw the **RADIO ON LINE-OFF LINE** switch to **OFF LINE.**

(b) Throw the **RADIO-RADIO & PHONE** switch to **RADIO & PHONE.**

BE SURE THAT THE HEADPHONES ARE PLUGGED INTO THE CONTROL UNIT AND NOT THE RECEIVER.

(c) Increase the volume by turning the **AUDIO** knob in a clockwise (to the right) direction.

(d) Either hold the switch on Microphone T-35 up, or snap it to **ON** position (down) and speak clearly into it. You should hear your voice through one side of the headphones.

(2) To receive information from the telephone line, set the **RADIO ON LINE-OFF LINE** switch to **OFF LINE,** throw the **RADIO-RADIO & PHONE** switch to **RADIO & PHONE,** and increase the volume by turning the **AUDIO** knob to the right and listen in the headphones.

(3) To transmit the radio receiver output over the telephone line.—

(a) Throw the **RADIO ON LINE-OFF LINE** switch to **RADIO ON LINE.**

(b) Listen to the signal in the headphones, and increase the volume of the radio receiver as much as possible without introducing too much distortion.

(4) If you wish to compare a station received over the telephone line with one received on the receiver, set the **RADIO ON LINE-OFF LINE** switch to **OFF LINE,** throw the **RADIO-RADIO & PHONE** switch to **RADIO & PHONE,** and increase the volume by turning the **AUDIO** knob to the right. Then turn up the **VOLUME** control on the receiver. Now you will hear the receiver with one ear, and the received signal from the telephone line with the other.

(5) To listen to your own receiver in both earphones when using the control unit.—

(a) Throw the **RADIO-RADIO & PHONE** switch to **RADIO.**

(b) Throw the **RADIO ON LINE-OFF LINE** switch to **OFF LINE.**

(c) Set the **VOLUME** control on the receiver to a suitable level.

IMPORTANT

1. When tuning in a station, the pointer intersection on the **DIRECTION INDICATOR** may oscillate back and forth and not come to rest. This usually occurs either at night or at dusk. Don't confuse this with signal fading, which causes the pointer intersection to move up and down. To take an azimuth under these conditions, rotate the loop so that the pointer intersection swings equally as far to the left as to the right of the zero center line.

2. When operating Radio Receiver BC-973-B with the beat frequency oscillator turned on **(C.W. OSC.)** and the **SENSITIVITY** control turned up, the pointers will deflect when the set is tuned to one of the beat oscillator harmonics. These harmonics exist at 1374 kc, 1832 kc, 2290 kc and 2784 kc. They are often mistaken for signals from stations. To determine whether you are tuning in a harmonic or a true signal, switch off the beat oscillator—if the pointers do not collapse, you are tuning in a station.

REMEMBER THESE POINTS

1. Be sure the direction finder is properly oriented with respect to true North or magnetic North as directed by your commanding officer.

2. Before taking an azimuth, make sure that the **AVC-MVC** switch is at **MVC.**

3. ALWAYS RECHECK THE **PRESS TO BALANCE** CONTROL. THIS IS THE LAST STEP BEFORE YOU READ THE AZIMUTH BEARING.

4. Always use the sense antenna and **SENSE** button to determine the correct azimuth.

5. To talk into the microphone while using Control Unit RM-35-B, throw the **RADIO ON LINE-OFF LINE** switch to **OFF LINE.**

6. In case of rain, use Cover BG-133-B to cover and protect the entire direction finder. If you must operate the equipment in the rain, be sure to use Cover BG-134-B. This protects the equipment and also permits its operation.

SECTION III

FUNCTIONING OF PARTS

15. LOOP THEORY.

A complete understanding of the operation of the crossed loops is necessary in order to understand the operation of the receiver.

a. Single loop. To simplify the explanation of this theory, first consider the operation of a single loop feeding into a vacuum tube voltmeter instead of the receiver (fig. 15). When a transmitted sig-

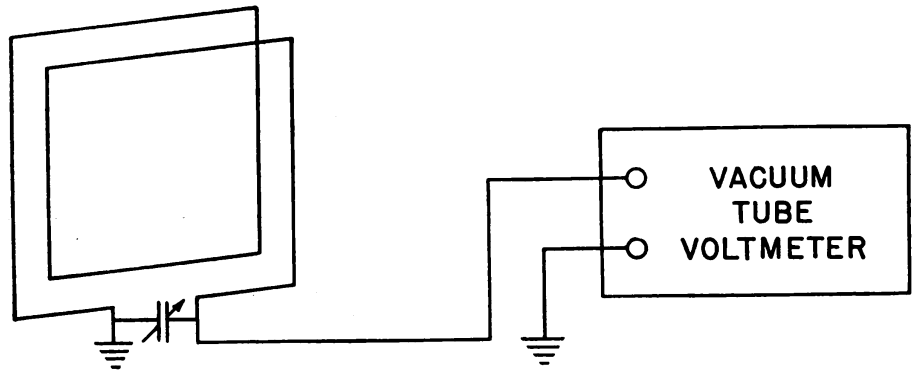


FIGURE 15. Single loop circuit.

nal is of great enough strength to give a good reading on the vacuum tube voltmeter, make a note of the loop pickup as the loop is rotated around a vertical axis. Plot this pickup versus degree of rotation on polar coordinate paper. The result is a voltage pattern in the form of a figure 8 (fig. 16).

b. Double loop.—Now consider two of these loops of identical characteristics, mounted at a fixed angle of 90° to each other on a common mounting. If a vacuum tube voltmeter is used to measure the output of each loop, the plotted results will show two figure 8 patterns displaced by 90° (fig. 17).

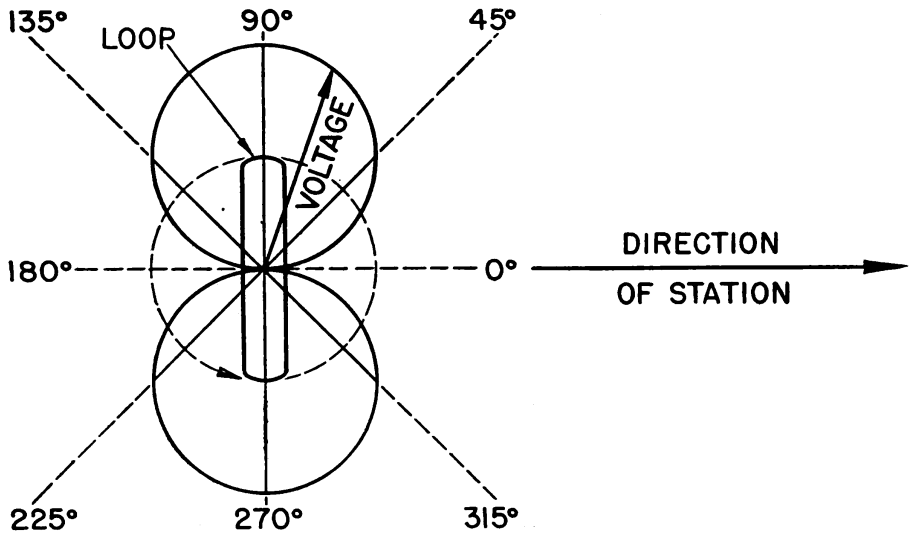


FIGURE 16. Single loop antenna pattern.

The arrow shows the direction in which loop sights are pointing with respect to the position of the loops. If the signal is coming from the station (fig. 17), the pickup of loop 1 is a minimum, or zero, and the pickup of loop 2 is a maximum. If the loops are rotated 45° so that the arrow points toward the station, the pickup in both loops will be equal. This is the principle used in Radio Set SCR-503-B to determine the direction of the station.

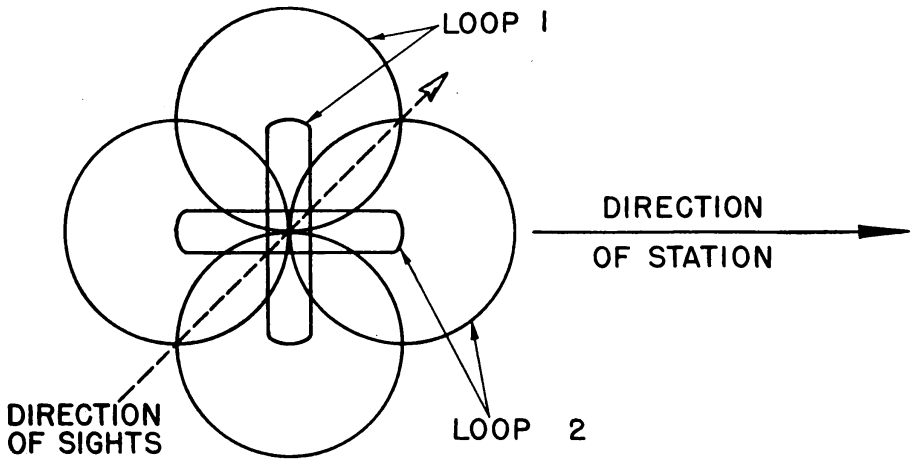


FIGURE 17. Double loop antenna pattern.

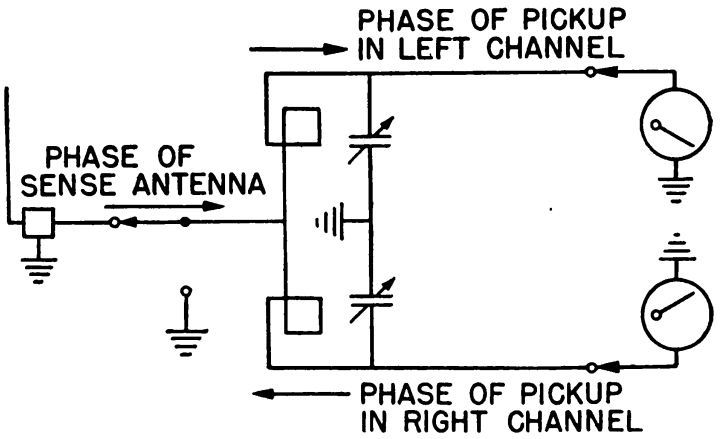


FIGURE 18. Phase relationship when sights are pointing toward station.

When the sights are pointing toward the station, the loops are connected in such a way that the pickup in each is in opposite phase (fig. 18). The pickup from the sense antenna is adjusted automatically by means of the phase shift network so as to be in phase with the pickup of one loop but out of phase with the pickup of the other. Thus the sense antenna pickup adds to the voltage in one loop but subtracts from the other, and the reading of one vacuum tube voltmeter will increase while that of the other decreases.

In order that this action can be compared to the action in Radio Set SCR-503-B, you must picture the vacuum tube voltmeters inclosed in the same case with a pointer indicating the action of each meter. When the meter readings are equal, these pointers will cross on the center or zero line. When the **SENSE** button is pushed, the reading of the left meter movement increases and the right decreases. The intersection of the meter pointers will swing either to the right or to the left. In Radio Set SCR-503-B, the meter is connected so that the intersection swings to the left when the sights are pointing toward the station. The phase of the sense antenna is in the same direction as the left channel, and therefore the sense antenna voltage will add to the voltage from the left channel loop and the pointer intersection would swing to the *left* indicating a *direct* azimuth.

When the sights are pointing away from the station, the phase of the voltage from each loop reverses, but the phase of the sense antenna voltage remains the same. Consequently, the sense antenna voltage adds to the voltage in the right channel and subtracts from the voltage in the left channel. The pointer intersection then swings to the *right* and indicates a *reciprocal* azimuth.

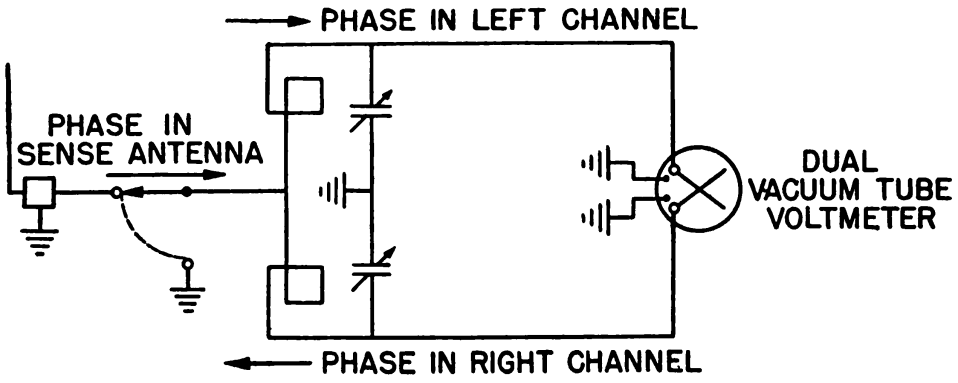


FIGURE 19. Dual vacuum tube voltmeter in circuit.

When the loop sights are pointing 90° or 270° off the station, the voltage pickups of the loops are in phase. In order to check for these false azimuths it is not necessary to use the **SENSE** button because the **PRESS TO BALANCE** control will give the same results. When the **PRESS TO BALANCE** control is pushed in, a relay actuates a switch which effectively puts the two loops in series. With the **PRESS TO BALANCE** control pushed in (fig. 20), trace the circuit from one meter terminal through the loops to the other terminal, and add up the voltages. If the loop voltages are equal, note that the sum of the voltages is zero. This causes the meter pointers to drop to zero, and indicates that the sights are on either a 90° or 270° false bearing.

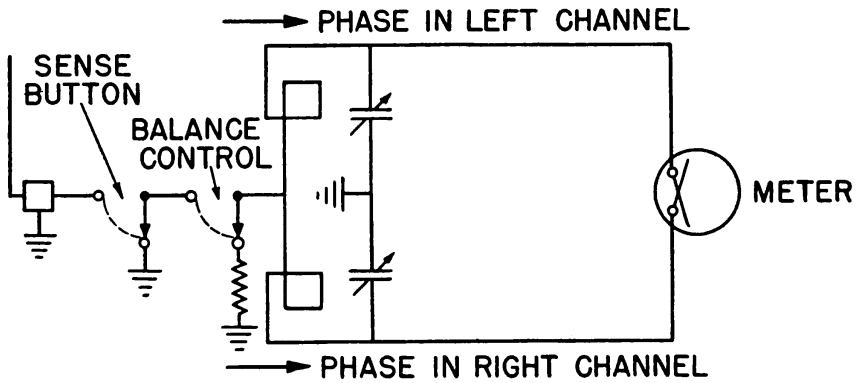


FIGURE 20. Phase relationship when sights are 90° or 270° off the station.

16. RECEIVER THEORY.—

Fundamentally, all that is necessary to take station bearings has been described in paragraph 15. However, the practical application of the circuit demands (1) higher sensitivity, (2) greater selectivity in order to separate stations, (3) a means of listening to the station so that it can be identified, (4) a means of modulating unmodulated code signals so that they can be heard, and (5) a means of tuning over a greater range of frequencies than can be accomplished by means of a loop and a tuning capacitor.

The method of extending the tuning range of the loop is essentially the same as that used on all multi-band receivers. Band switching is used, and the loop inductance is either increased by switching an inductance in series, or decreased by switching an inductance in parallel.

The sensitivity is increased by inserting high gain i-f channels between the loop and vacuum tube voltmeter. Superheterodyne action is accomplished by means of an oscillator that is common to both channels and which beats with the incoming signal to produce the intermediate frequency.

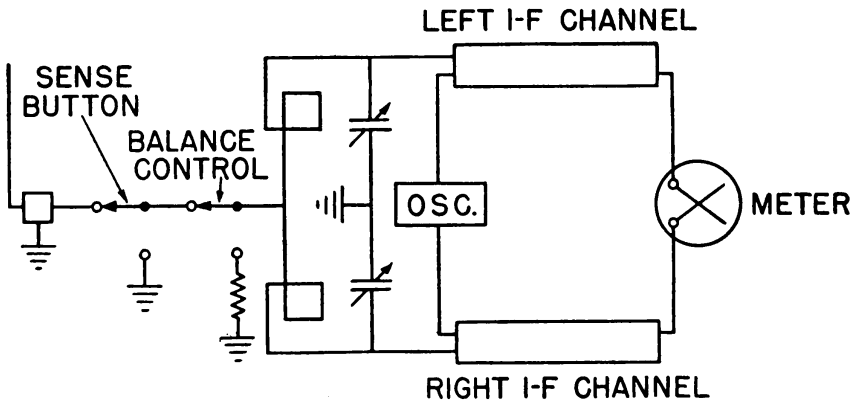


FIGURE 21. Addition of i-f channels and oscillator to circuit.

Monitoring the stations is done by adding audio detectors and an audio stage feeding a pair of headphones (fig. 22).

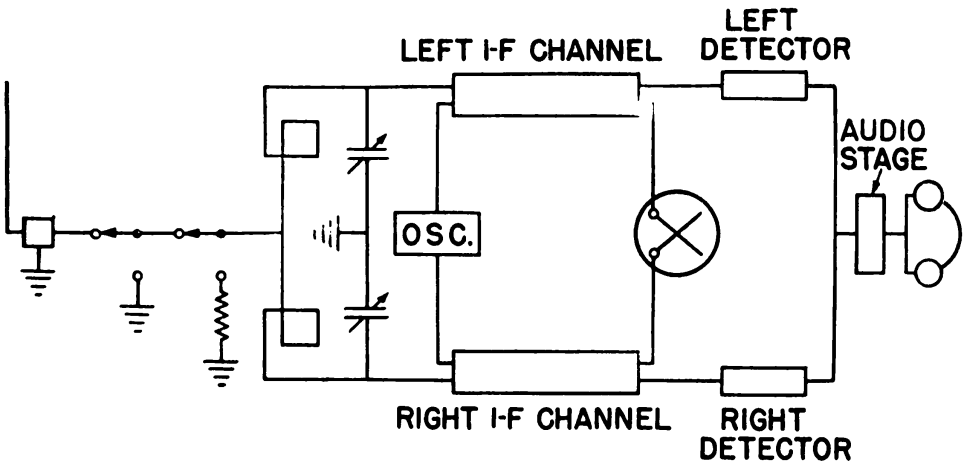


FIGURE 22. Addition of detectors, audio stage and headphones to circuit.

The addition of a beat frequency oscillator takes care of modulating the unmodulated code signals. This beat frequency oscillator beats with the intermediate frequency to give an audible beat-note.

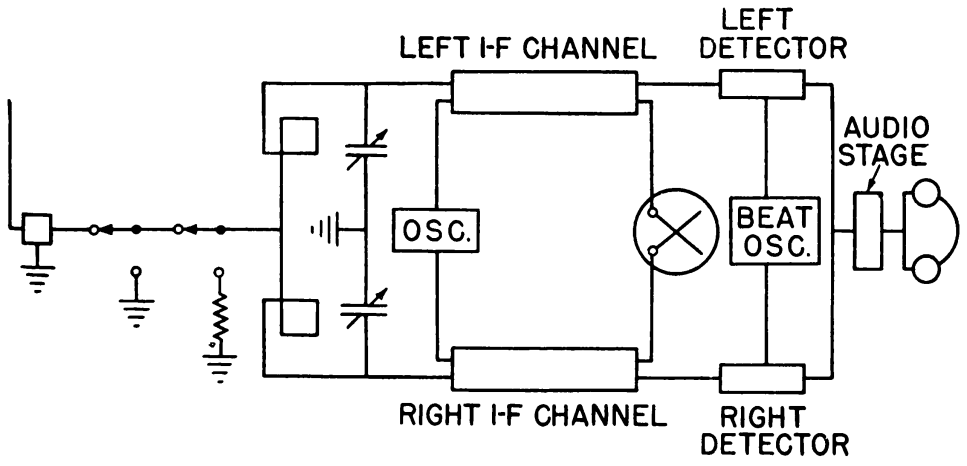


FIGURE 23. Complete block diagram of either receiver of Radio Set SCR-503-B.

SECTION IV

MAINTENANCE

17. SERVICING.—

Be careful when servicing this equipment. Make only minor repairs or replacements in the field (pars. **18, 20, 21, 22, 23, 24, 25,** and **26**). Servicing and repair should be attempted only by authorized personnel, supplied with the correct tools and instruments. In trying to locate and repair troubles which a trained man could service in a few minutes, you may damage the equipment to such an extent that shipment to a repair depot is necessary. This applies especially to replacement of tubes, and alignment. *NEVER ATTEMPT ALIGNMENT UNDER CONDITIONS IN THE FIELD—DON'T TAMPER WITH THE LOOP ADJUSTMENTS BUILT IN ON THE FACE OF THE RECEIVER.*

18. TROUBLE LOCATION AND REMEDY CHART.—

When the set does not operate properly, check the items in the trouble chart before examining the entire equipment in detail.

TROUBLE CHART

Trouble	*Probable Causes*	*Remedy*
Radio set dead.	Power switch **OFF.**	Turn **ON-OFF** switch to **ON.**
	Dynamotor Unit PE-133-B disconnected from receiver.	Check Cord CD-673-B between dynamotor and radio receiver (par. **11a(4)**).

Trouble	*Probable Causes*	*Remedy*
	Dynamotor Unit PE-133-B disconnected from battery.	Check battery cable between battery and dynamotor. See that battery terminal wingnuts are tight. Clean the terminals if they are corroded.
	Blown fuse.	Examine fuse in the positive lead of the battery cable and replace it, if necessary (par. **22**).
	Dead battery.	Replace battery (pars. **11a**(**5**) and **21**).
	Defective Cord CD-673-B.	Replace Cord CD-673-B.
Both channels weak.	Defective or burned out oscillator tube.	Replace oscillator tube (par. **26**).
	Weak battery.	Recharge battery as instructed on card attached to the battery (par. **11a**(**5**)). Always keep the battery voltage above 10.2 volts. If necessary, replace battery (pars. **11a**(**5**) and **21**).
	Wet loop coils.	Dry out loop.
	SENSITIVITY control set too low.	Rotate **SENSITIVITY** control clockwise (to the right).
	Receiver out of alignment.	Align receiver (par. **28**).
One channel weak.	Defective i-f tube.	Replace defective i-f tube in weak channel (par. **26**).
	Defective mixer tube.	Replace mixer tube in weak channel (par. **26**).
	Defective 2d detector tube.	Replace 2d detector tube in weak channel (par. **26**).
	Receiver out of alignment.	Align receiver (par. **28**).
	Wet loop coil.	Dry out loop.

Trouble	*Probable Causes*	*Remedy*
No audio output.	Headset HS-29-E disconnected.	Insert headset plugs into jacks marked **OUTPUT** on front panel of receiver.
	VOLUME control **OFF**.	Turn **VOLUME** control clockwise (to the right).
	Defective audio tube.	Replace audio tube (par. **26**).
	Defective Headset HS-29-E.	Replace Headset HS-29-E.
No audio output when using control trol unit.	Patching Cords CC-66 disconnected.	Connect patching Cords CC-66 (par. **11b**(**1**)).
	Headset HS-29-E not connected to Control Unit RM-35-B.	Insert the headset plugs in the jacks marked **PHONE** on Control Unit RM-35-B.
	Headset HS-29-E connected to wrong jacks.	Insert the headset plugs in the jacks marked **PHONE** on Control Unit RM-35-B.
No microphone output.	Telephone line shorted.	Examine and correct.
	Switches on Control Unit RM-35-B in wrong position.	Set switches to correct position (par. **14f**).
	Disconnected patching Cord CC-66 for microphone current.	Connect patching Cord CC-66 (par **11b**(**1**)).
	Microphone plug not inserted far enough to make contact.	Insert microphone plug as far as possible into jack marked **MICROPHONE** on Control Unit RM-35-B.
Compass needle does not rotate.	Needle lock not disengaged.	Disengage needle by turning knurled knob on bottom of compass counterclockwise (to the left).
No sense indication.	Sense Antenna AN-45-F not mounted.	Mount sense Antenna AN-45-F and extend it.
	Weak battery.	Recharge or replace battery (pars. **11a**(**5**) and **21**).
Weak sense indication.	Sense Antenna AN-45-F not extended.	Extend sense Antenna AN-45-F.

19. LOCALIZING THE TROUBLE.—

Try to localize the trouble before checking over a complete radio set to find the part at fault. If you can find the approximate location of trouble, you will need only to check that section very carefully.

a. To localize the trouble, first consider the symptoms. The following clues will be of help.—

(1) If the **DIRECTION INDICATOR** shows a reading when a signal is tuned in but no audio is heard in the headset, the trouble is in either (*a*) the audio output stage, (*b*) the first audio tube plate circuit, (*c*) the output transformer and volume control circuit, or (*d*) in the headset.

(2) If only the left pointer operates, the trouble must be in either the right i-f channel or in the right loop circuit.

(3) If the right pointer operates and not the left, then either the left channel or the left loop circuit is at fault.

(4) It is possible to have a slight reading on the **DIRECTION INDICATOR** as a result of tube noise, and still not be able to tune in any signal. If there is also a rushing noise in the earphones when the **SENSITIVITY** and **VOLUME** controls are at a maximum, the source of trouble is either the oscillator circuit or the loop circuit.

These clues will help to localize the trouble for you. Electrical tests using a signal generator, d-c voltmeter, and ohmmeter are now necessary to further locate the defect.

b. If clue number (1) indicates that the trouble is in the audio channel, proceed as follows.—

(1) Short the grid of the output tube intermittently to ground. You will hear a clicking noise in the earphones if the tube and its output circuit are operating.

(2) If there is no clicking noise in the earphones, you know that you have localized the trouble.—

(a) Check the tube voltages and compare with figures 26 and 27.

(b) Check the output circuit with the ohmmeter for shorts or open circuits.

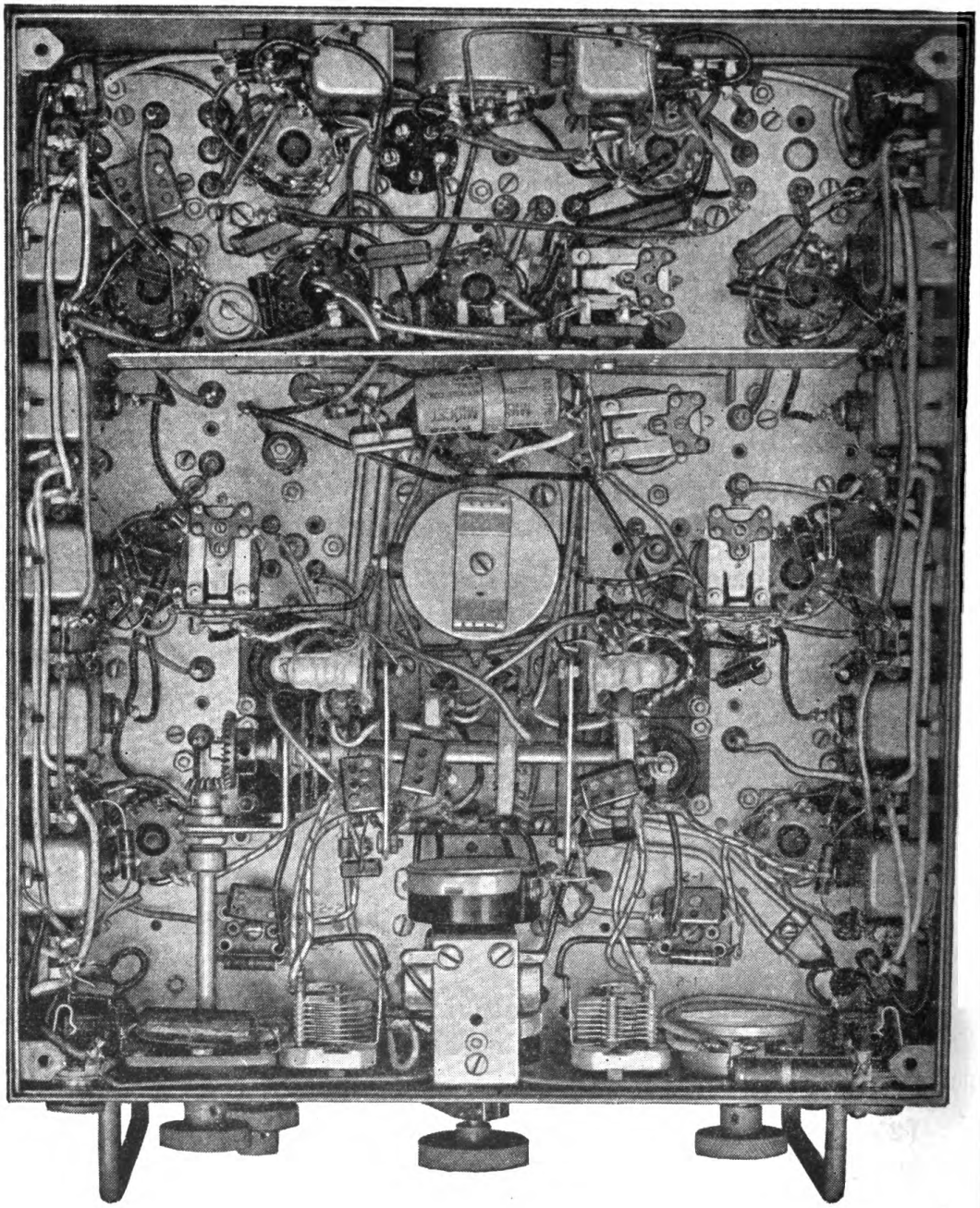


FIGURE 24. Chassis of Radio Receiver BC-973-B, bottom view.

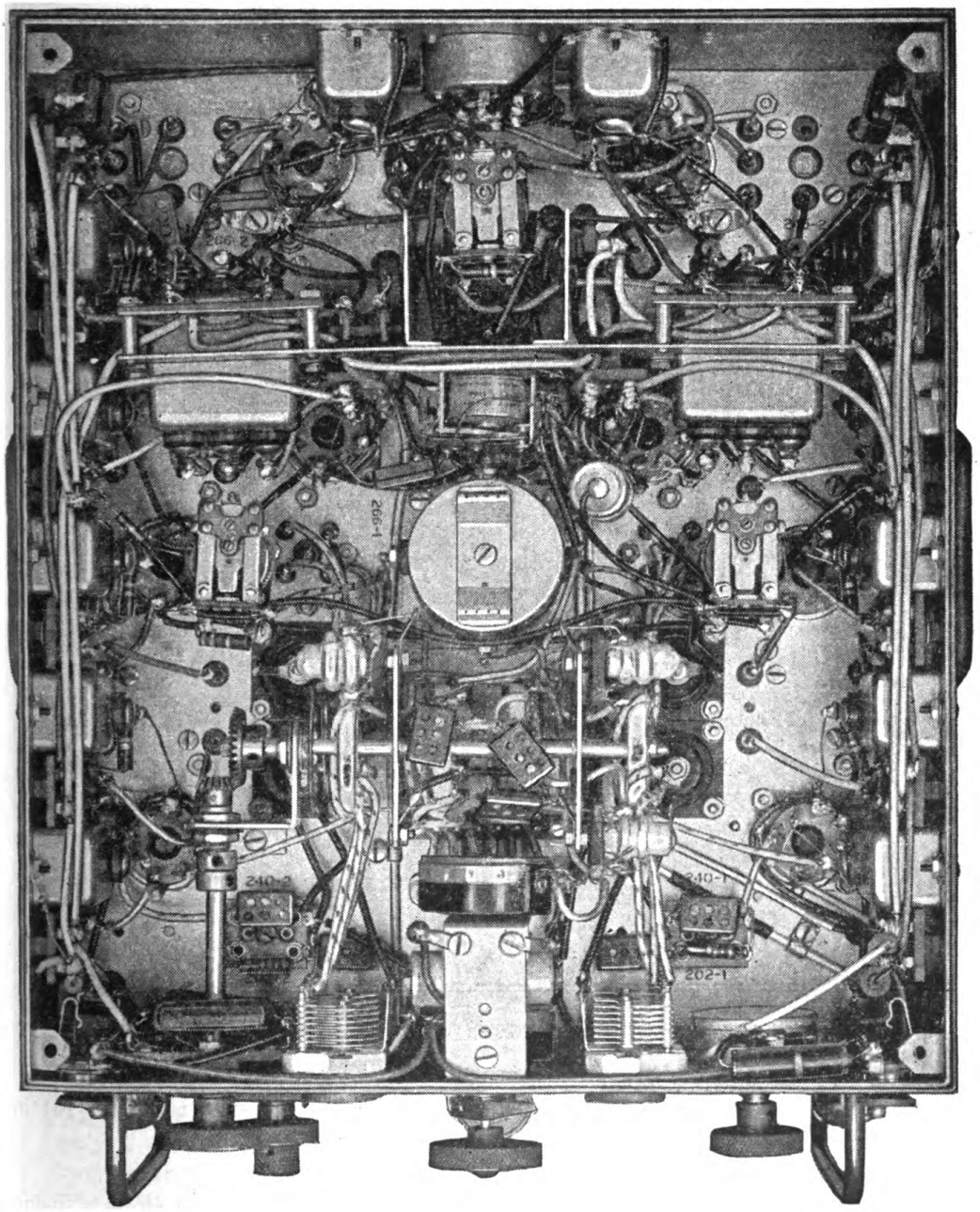
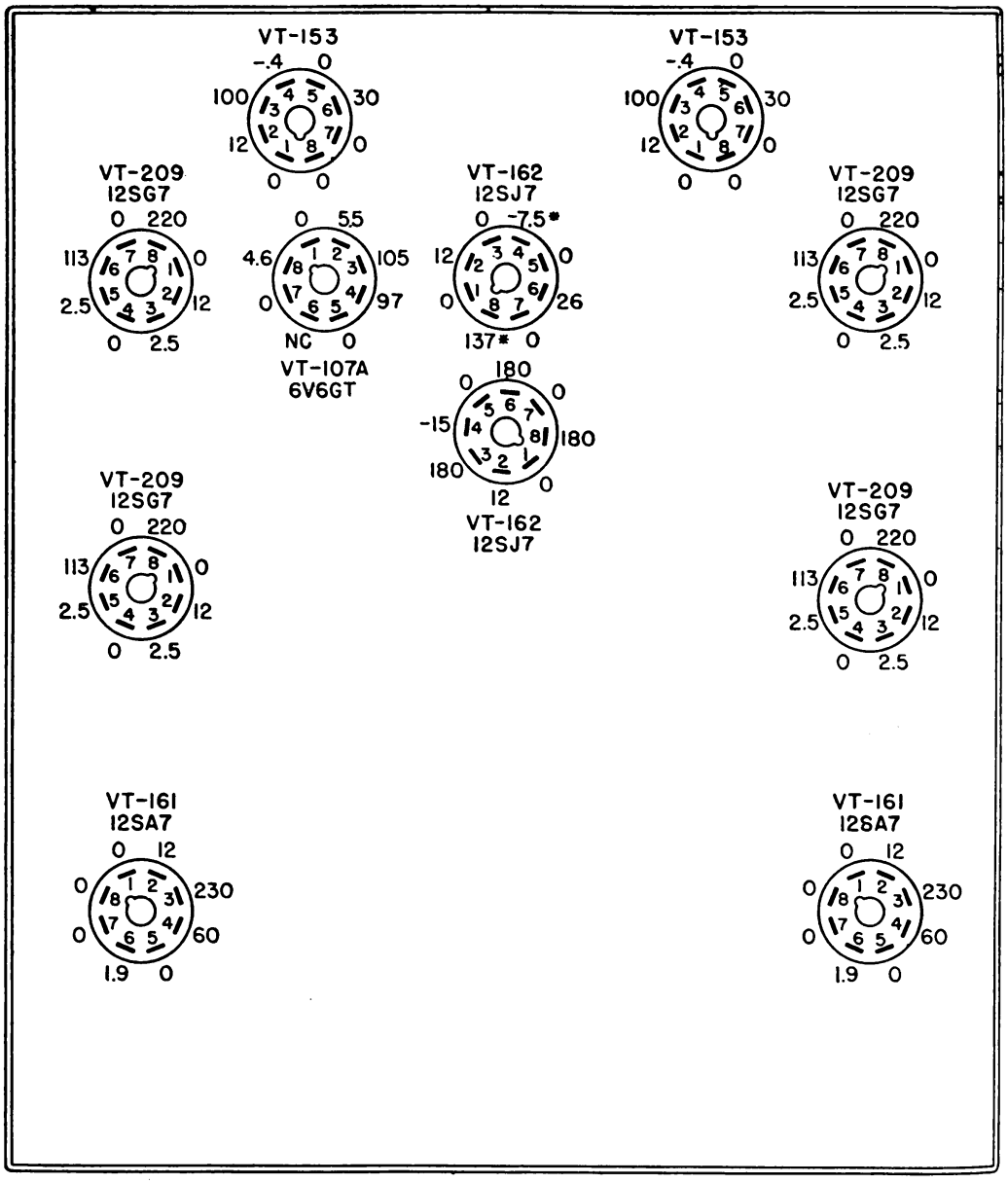


FIGURE 25. Chassis of Radio Receiver BC-1003-B, bottom view.



NOTES:

All the tubes must be in their sockets.

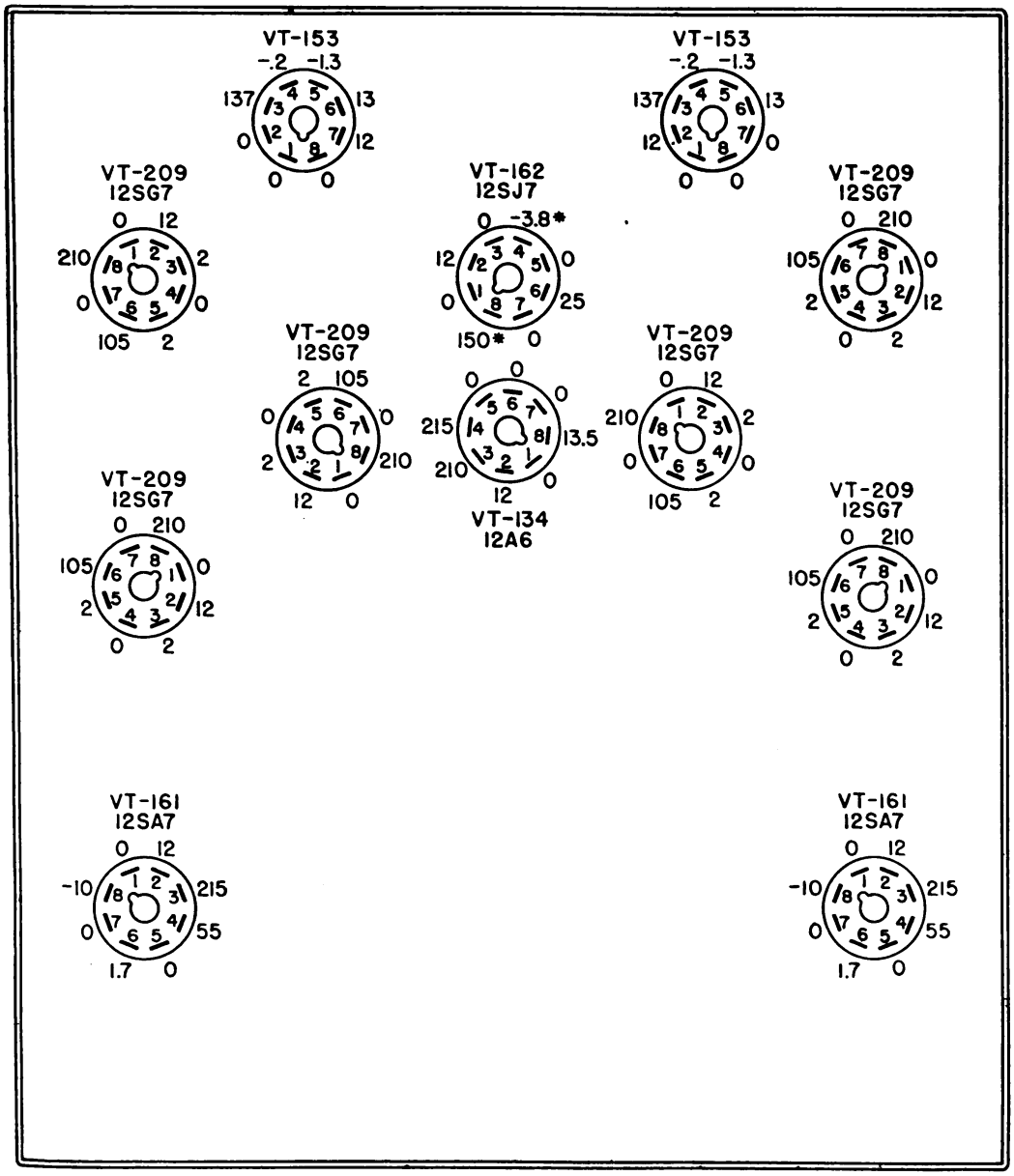
If the loop is removed, be sure to ground pin 5 on mixer tube VT-161 in each channel.

The AVC-MVC switch must be on MVC.

Measurements are made between the terminals indicated and chassis, using a voltmeter having a sensitivity of 20,000 ohms per volt on the d-c meter.

*To make this reading, the C.W. OSC. switch must be ON.

FIGURE 26. Radio Receiver BC-973-B, tube socket voltage diagram.



NOTES:

The base of the oscillator tube is not easily accessible and therefore its voltages have been omitted.

All the tubes must be in their sockets.

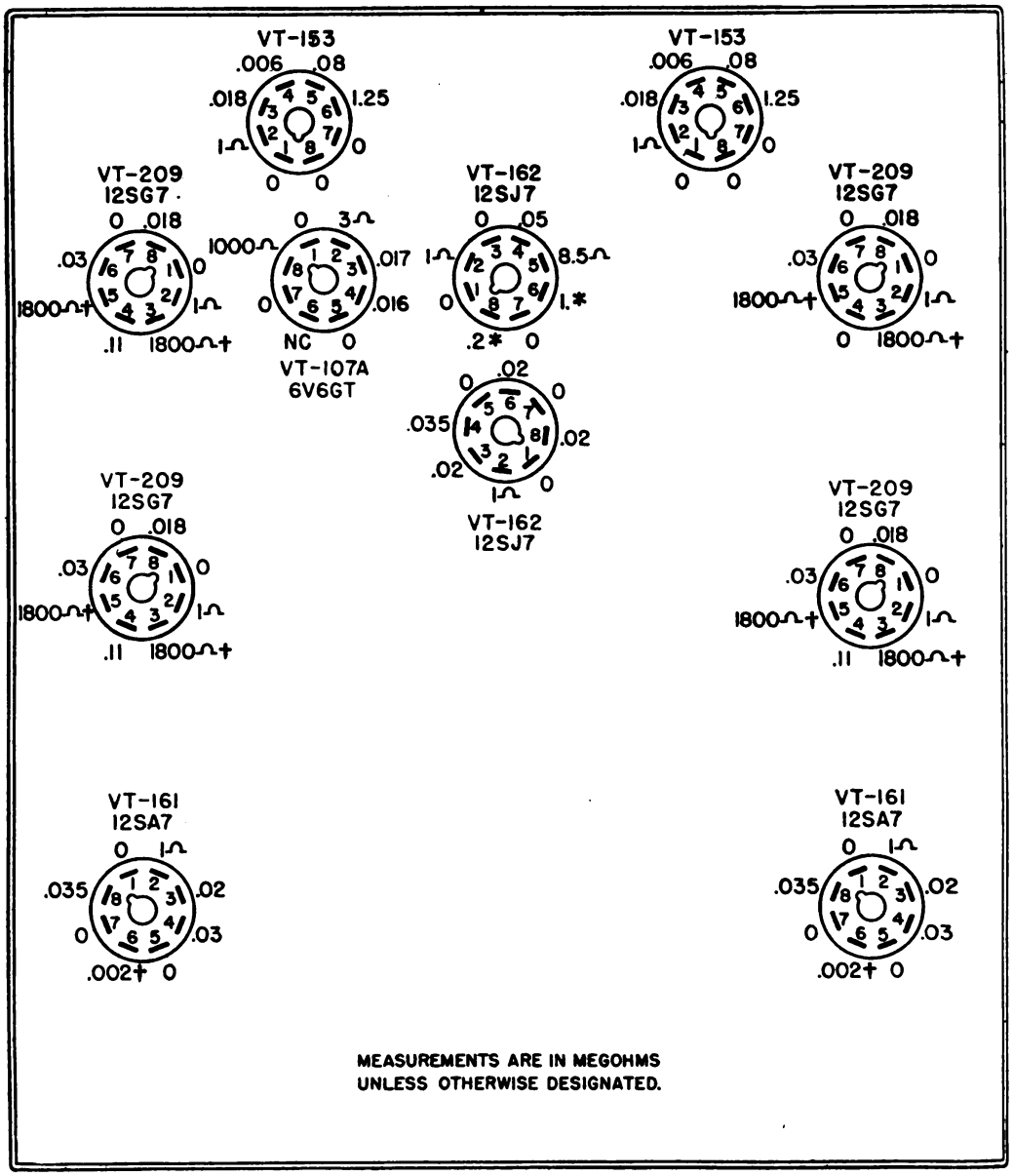
If the loop is removed, be sure to ground pin 5 on mixer tube VT-161 in each channel.

The AVC-MVC switch must be on MVC.

Measurements are made between the terminals indicated and chassis, using a voltmeter having a sensitivity of 20,000 ohms per volt on the d-c meter.

*To make this reading, the C.W. OSC. switch must be ON.

FIGURE 27. Radio Receiver BC-1003-B, tube socket voltage diagram.



NOTES:

Disconnect Cord CD-673-B from receiver.

Remove Loop LP-23-B.

All the tubes must be in their sockets.

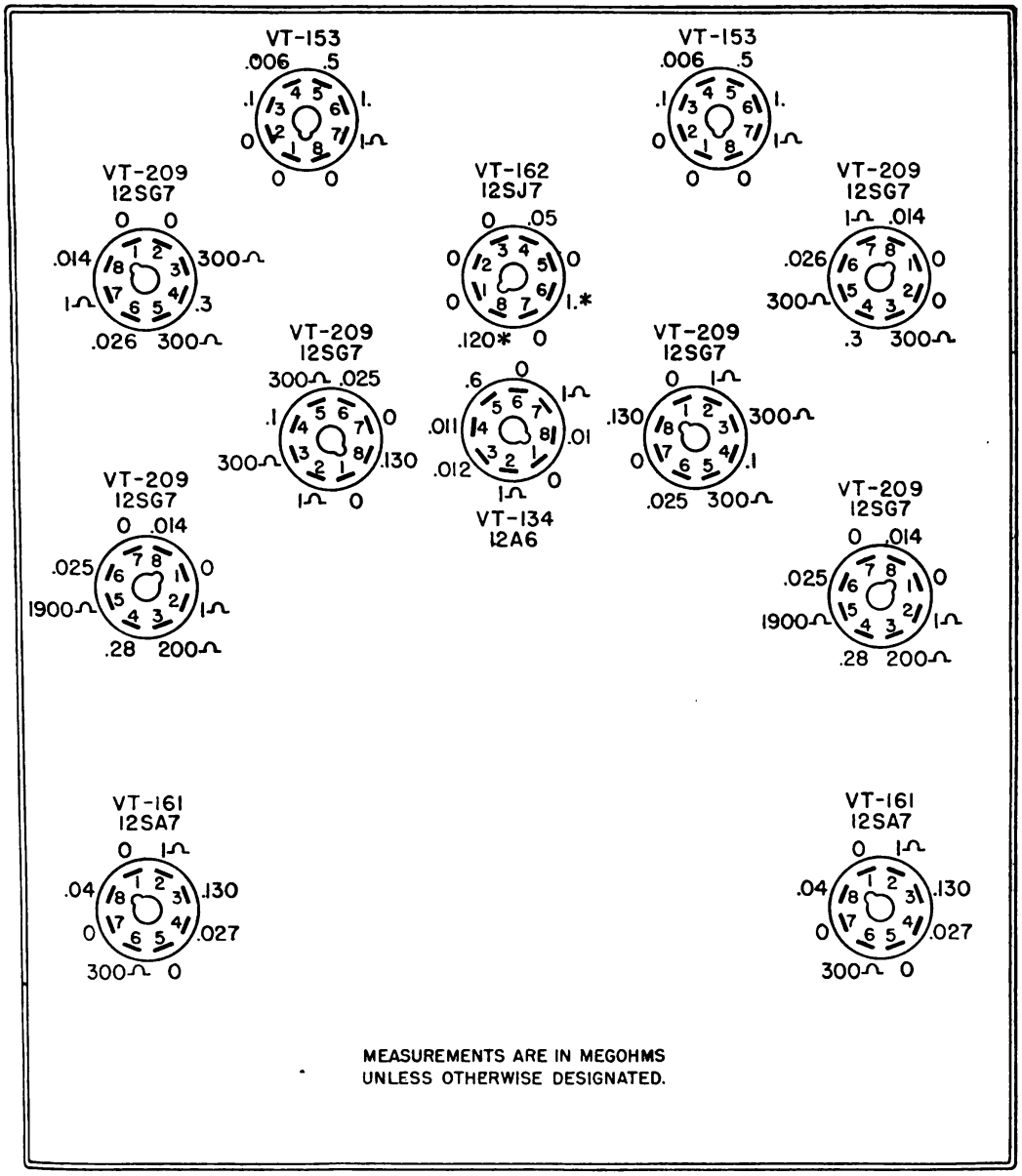
The AVC-MVC switch must be on MVC.

Measurements are made between the terminals indicated and the chassis, using a R.C.A. Voltohmyst.

*To make this reading, the C.W. OSC. relay must be depressed.

†To make this reading, the SENSITIVITY control must be in the extreme counter-clockwise (to the left) position.

FIGURE 28. Radio Receiver BC-973-B, tube socket resistance diagram.



NOTES:

The base of the oscillator tube is not easily accessible and therefore it has been omitted.

Disconnect Cord CD-673-B from receiver.

Remove Loop LP-33-B.

All the tubes must be in their sockets.

The AVC-MVC switch must be on MVC.

Measurements are made between the terminals indicated and chassis, using a R.C.A. Voltohmyst.

*To make this reading, the C.W. OSC. relay must be depressed.

FIGURE 29. Radio Receiver BC-1003-B, tube socket resistance diagram.

(c) Check the headphones with the ohmmeter for continuity. TURN THE VOLUME CONTROL TO MAXIMUM WHEN CHECKING THE HEADSET CIRCUIT.

(3) A clicking noise indicates that the output tube is operating and that the trouble is in the plate circuit or screen circuit of one of the first audio stages. Check this circuit and measure the voltages.

c. If clue number (2) indicates that the left channel is defective, determine which stage is defective by the following procedure.—

(1) Feed the output of the signal generator to the grid of the last i-f tube. (Refer to alignment instructions, paragraph 28, for additional details on the use of the signal generator.)

(2) If the meter shows a reading when the sensitivity is approximately correct (par. 14a(4), (7), and (8)), then this stage is not the defective one.

(3) Move the signal generator to the grid of the preceding stage. If this stage proves to be defective, check the circuit by means of the voltmeter and ohmmeter in order to locate the trouble.

(4) If this stage is not defective, move to the next preceding stage until the trouble is located.

d. If clue number (3) indicates that the right channel is defective, determine which stage is defective by following the procedure in paragraph 19c.

e. If clue number (4) indicates that the trouble is in the oscillator or loop circuits, a check will show whether or not the oscillator is working.—

(1) Measure the voltage on the oscillator grid, or one of the wires connected to it, by using a high impedance voltmeter of at least 20,000 ohms per volt. This voltage should be negative (figs. 26 and 27).

(2) If there is no grid voltage, then check the voltage of the oscillator coils, band switch, and oscillator tube.

(3) If these are satisfactory, the trouble must be in the loop circuit.

20. CLEANING OF CONTACTS.—

a. Relay contacts.—Relay contacts become dirty after they have been used considerably. This causes a very loud click in the headphones whenever the **PRESS TO BALANCE** or **SENSE** controls are pushed. Reduce this clicking by cleaning the contacts with a small cloth saturated with alcohol or carbon tetrachloride.

b. Loop commutator.—A dirty loop commutator will cause the pointers of the **DIRECTION INDICATOR** to jerk. To correct this, first remove the loop commutator (par. **27a**) and clean the commutator rings and brushes with alcohol or carbon tetrachloride. Then apply a light film of grease such as Lubricating Special AXS 637, or equal, to the commutator rings.

c. Battery terminals.—Battery terminals corrode easily due to chemical reaction—especially the positive terminal. Use a knife to clean off this corrosion as it will interfere with the making of good contact. Then coat the terminals with petrolatum.

21. BATTERY REPLACEMENT.—

a. Open Chest CH-113-B.

b. Remove the shelf by releasing the four sash fasteners.

c. Remove battery clamps by unscrewing the wingnuts.

d. Disconnect the battery leads.

e. Replace the old battery with spare battery from Chest CH-139-C. *BE SURE THE TERMINAL LUGS ARE NEAR THE REAR OF THE CHEST.*

f. Connect battery leads. *CONNECT THE RED LEAD WITH THE FUSE IN IT TO THE POSITIVE TERMINAL OF THE BATTERY.*

g. Clamp the battery into position and tighten the wingnuts.

h. Replace shelf and close chest.

22. FUSE REPLACEMENT.—

a. Open Chest CH-113-B.

b. Remove the shelf by releasing the four sash fasteners.

c. Disconnect the battery leads and remove cartridge from spring clip.

d. Open the fuse cartridge by pressing the top in and turning the top to the left (counterclockwise).

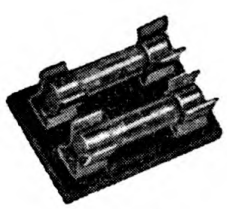
e. Replace the blown fuse by a spare fuse, which is on the right side of the top cover in this chest.

f. Close the cartridge by pushing the top in and turning the top to the right (clockwise).

g. Replace cartridge in the spring clip.

h. Connect battery leads. *CONNECT THE RED LEAD WITH THE FUSE IN IT TO THE POSITIVE TERMINAL OF THE BATTERY.*

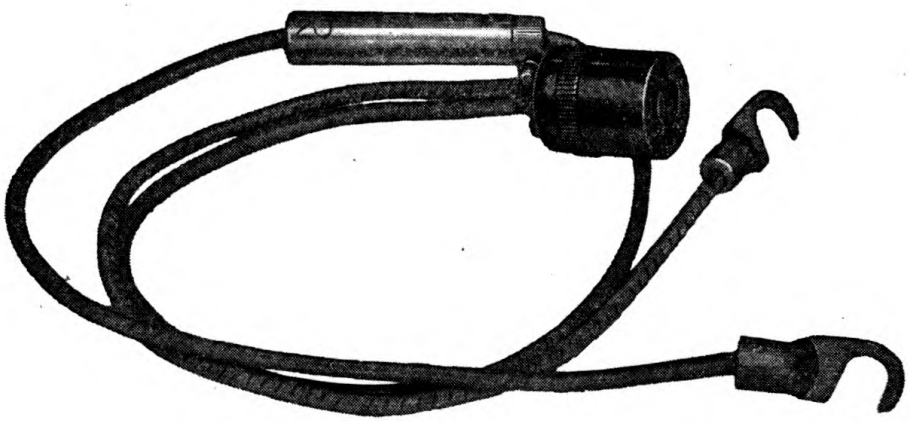
i. Replace shelf and close chest.



FUSES

PILOT LIGHT ASSEMBLY

LIGHT BULB



BATTERY CABLE

FIGURE 30. Battery cable, fuses, and pilot light.

23. DYNAMOTOR BRUSH REPLACEMENT.—

a. Open Chest CH-113-B.

b. Remove the shelf by releasing the four sash fasteners.

c. Disconnect the power cord CD-673-B from the dynamotor.

d. Remove the dynamotor from the chest by releasing the snap slides on the bottom of the dynamotor filter. To release the front snap slides, insert hand through plug opening on the front of the chest.

e. Remove the battery cable from the dynamotor.

f. Carefully remove the short, twisted wire on one end of the dynamotor or the other, depending on whether you wish to replace the high or low voltage brushes. The high voltage brushes (411-1, 412-1) are on the same side as the power Socket SO-69, and the low voltage brushes (409-1, 410-1) are on the same side as the battery cable socket.

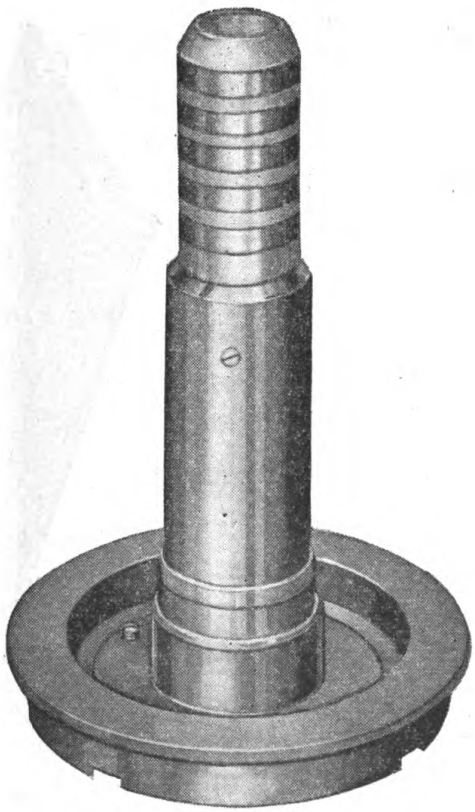


FIGURE 31. Loop commutator.

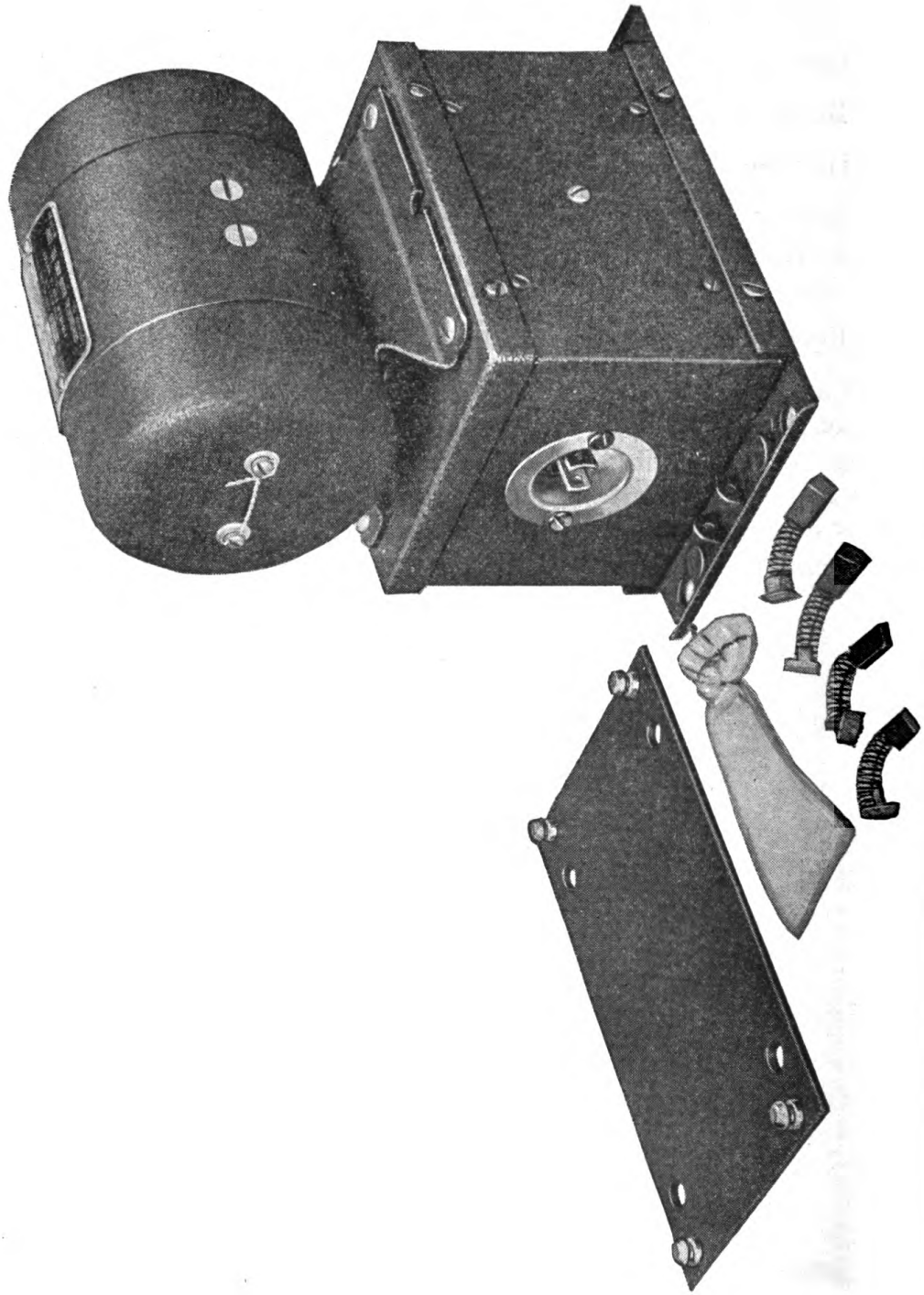


FIGURE 32. Dynamotor Unit PE-133-B and brushes.

g. Unscrew the two screws and remove the end cover.

h. Unscrew the two knurled, black bakelite screws and remove the brushes.

i. Replace the worn brushes by the spare brushes which are in the small bag attached to the dynamotor.

j. Screw the two bakelite screws in tightly.

k. Replace the end cover and screw in the two end screws.

l. Replace the twisted wire which keeps the end screws from turning.

m. Connect the battery cable to the dynamotor, and then place it back in the chest.

n. Connect the snap slides to the studs in the bottom of the chest.

o. Connect the power cord CD-673-B to the dynamotor.

p. Replace shelf and close chest.

24. **DYNAMOTOR LUBRICATION.—**

After each 500 hours of operation, lubricate the bearings of Dynamotor Unit PE-133-B as follows:

a. Disconnect the dynamotor unit and remove from the chest, as outlined in steps a through e of paragraph 23.

b. Carefully remove the short, twisted wire on each end of the dynamotor.

c. Unscrew the two screws at each end of the dynamotor and remove the end cover plates.

d. Remove the bearing end plates by unscrewing the four screws holding them.

e. Clean the old grease from the bearings with a toothbrush and a piece of cloth.

f. Repack the outer side of the bearings with a small amount of General Purpose Grease No. 2, U. S. Army Specification 2-108, or equal. **Don't get any grease on the commutator or brushes.**

g. Replace bearing end plates and remove all excess grease with a cloth.

h. Replace the end covers and fasten them with the four screws.

i. Replace twisted wires which keep the end screws from turning.

j. Connect the battery cable to the dynamotor, and replace the dynamotor in the chest.

k. Connect the snap slides to the studs in bottom of the chest.

l. Connect the power Cord CD-673-B to the dynamotor.

m. Replace shelf and close the chest.

25. PILOT LIGHT REPLACEMENT.—

a. Remove pilot light cover spring which holds the reflecting cap.

b. Remove the pilot light reflecting cap by pulling on it until it snaps out of its groove.

c. Remove defective light bulb by unscrewing it, and replace it with a spare bulb (GE 1487) taken from the center of the cover of Chest CH-103-B.

d. Snap on the reflecting cap.

e. Replace the pilot light cover spring.

26. TUBE REPLACEMENT.—

a. Locate the defective tube or tubes by following the procedure given in paragraphs 18 and 19.

b. Remove the tubes that may be at fault, one at a time, with a tube puller taken from the left side of the cover of Chest CH-103-B.

c. Replace the tubes with spares, one at a time, until the trouble is cleared up.

NOTE: IF MIXER OR I-F TUBES ARE REPLACED, CHECK OPERATION CAREFULLY AND, IF NECESSARY, ALIGN THE RECEIVER (PAR. 28).

27. REMOVAL AND ASSEMBLY OF PARTS.—

a. To remove commutator mechanism.—

(1) Remove the loop by unscrewing the four screws at the base of the loop.

(2) Remove the azimuth scale.

(3) Remove the top cover by unscrewing the four captive knurled thumbscrews.

(4) Now remove the commutator mechanism by lifting it up.

b. Access to the tubes and other units on the top side of the chassis.—Remove the top cover, azimuth scale, loop, and loop commutator intact by unscrewing the four captive knurled thumbscrews and lifting up the entire assembly. **When inserting or removing this assembly, be sure the loop commutator is in a vertical position so that you do not damage the commutator rings.**

c. Access to the bottom of the chassis.—

(1) Remove the receiver from Mounting Plate FT-363-B by pulling the two outer slide fasteners toward you.

(2) Remove the bottom plate by unscrewing the four corner screws.

d. To remove commutator brushes.—

(1) Remove the receiver from the mounting plate.

(2) Remove the bottom plate by unscrewing the four corner screws.

(3) To inspect, clean, or replace the six silver commutator brushes, unscrew the threaded brush holders from the round aluminum casting mounted on the center of the chassis.

e. To remove the DIRECTION INDICATOR.—The **DIRECTION INDICATOR** is mounted on the upper left hand side of the receiver. Remove it by unscrewing the four screws and pulling it forward.

28. ALIGNMENT.—

a. Preliminary.—

(1) Equipment needed: A signal generator covering the frequencies from 100 kc to 3000 kc, and a Headset HS-29-E.

(2) Remove the sense antenna, loop, and top plate.

(3) Remove the tripod, mounting plate, and bottom plate.

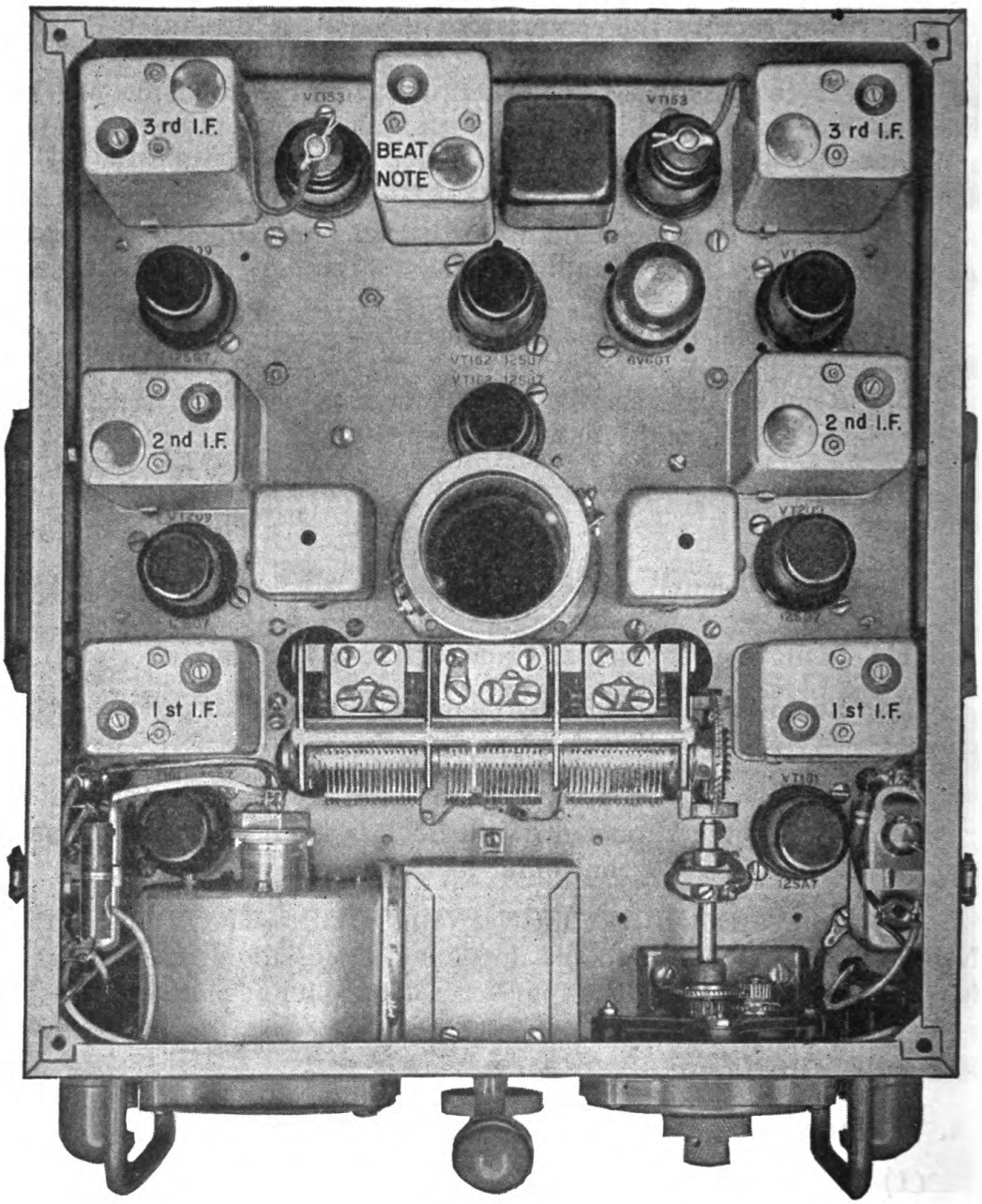


FIGURE 33. Radio Receiver BC-973-B, i-f trimmer location.

b. Alignment of Radio Receiver BC-973-B.—

(1) Align the 3d i-f stage.—

(a) Connect the ground terminal of the signal generator to e chassis of the receiver at a point near the input end of the receiver, ch as the grounded tap on the **PRESS TO BALANCE** control.

(b) Connect the hot terminal of the signal generator to the ids of the 2d i-f tubes in both channels by means of two leads.

(c) Turn on the signal generator and set the frequency accu- tely to 458 kc and the output to 80,000 microvolts.

(d) Turn the receiver on and set the **SENSITIVITY** control maximum.

(e) Trim the 3d i-f transformer (fig. 33) in each channel for aximum pointer deflection. Push in the **PRESS TO BALANCE** ntrol and turn it as far as possible in a clockwise (to the right) id counterclockwise (to the left) direction. The pointer intersection ould swing about the same distance to the right as to the left. If does not, then interchange the 2d i-f tubes or try substituting other ibes in one of the channels until matched tubes are found.

(f) Rotate the signal generator dial so that the frequency aries a few kilocycles above and below 458 kc. The meter pointers ould both reach a maximum at the same frequency. If they do not, peak the i-f trimmers carefully until they do.

(g) Set the signal generator for maximum pointer deflection. djust the **PRESS TO BALANCE** control and generator output so iat the tips of the pointers just come together on the zero center ne. The output of the signal generator should be approximately 0,000 microvolts.

(2) Align the 2d i-f stage.—

(a) Move the hot leads of the signal generator to the grids 4 pin) of the 1st i-f tubes.

(b)—Repeat steps **(c)**, **(d)**, **(e)**, **(f)**, and **(g)** under paragraph **8b(1)**, peaking the 2d i-f transformers (fig. 33) but not disturbing he 3d i-f transformers. The signal generator output, however, should e about 240 microvolts.

(3) **Align the 1st i-f stage.—**

(a) Move the hot leads of the signal generator to the gr (8 pin) of the mixer tubes. SEE THAT THE SIGNAL GENERAT LEADS ARE NOT CLOSE TO THE 3D I-F END OF THE RECEIV

(b) Repeat steps **(c)**, **(d)**, **(e)**, **(f)**, and **(g)** under paragra **28b(1).** The i-f sensitivity at this point, however, should be appro mately 3 microvolts. Do not disturb trimmers of previously alig stages.

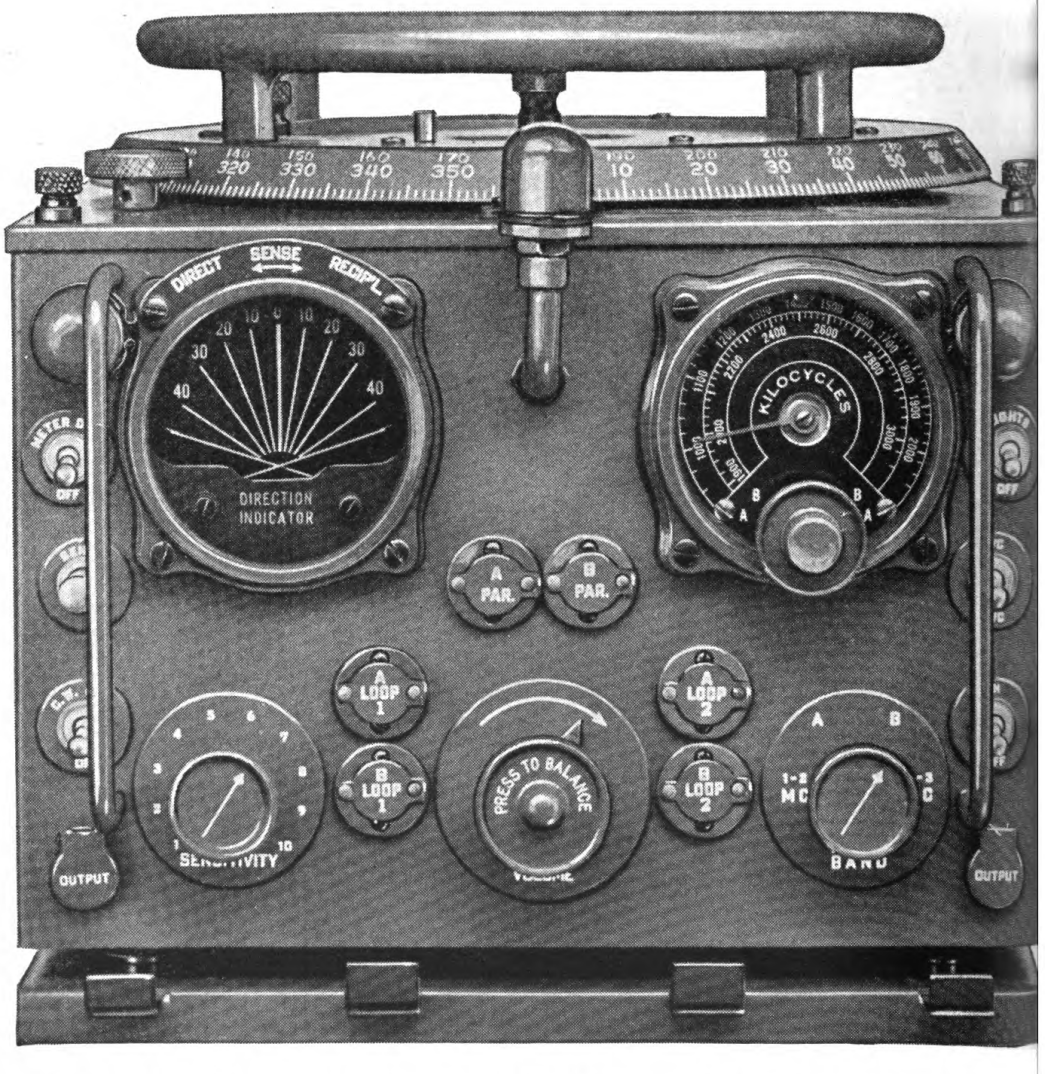


FIGURE 34. Radio Receiver BC-973-B, oscillator and loop trimme location.

(4) Adjust the beat frequency oscillator.—

(a) Set the signal generator to 458 kc.

(b) Tune the beat frequency oscillator until an audible beat-te results.

(5) Peak the oscillator trimmer for band B.—

(a) Set the **FREQ. BAND** switch on the front panel of the :eiver to band B.

(b) Rotate the tuning dial of the receiver to exactly 3,000 kc.

(c) Connect the hot leads of the signal generator to the top gs of the tuning capacitor.

(d) Set the signal generator accurately at 3,000 kc with an tput of about 5 microvolts and adjust the trimmer marked **B PAR.** r maximum pointer deflection. See figure 34 for trimmer location.

(6) Peak the oscillator trimmer for band A.—

(a) Set the **FREQ. BAND** switch on the front panel of the :eiver to band A.

(b) Rotate the tuning dial of the receiver to exactly 2,000 kc.

(c) Set the signal generator accurately at 2,000 kc with an itput of about 5 microvolts and adjust the trimmer marked **A PAR.** ig. 34) for maximum pointer deflection.

(7) Peak the A band loop trimmers.—

Always align all the loop trimmers using a high enough signal trength so that it is necessary to reduce the sensitivity control from aximum to the point marked 7.

(a) Feed the signal generator into a single turn loop (fig. 35).

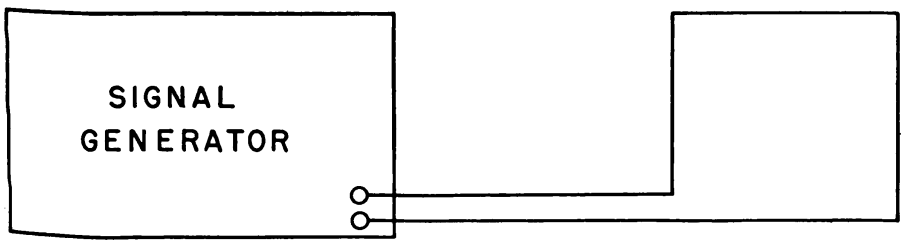


FIGURE 35. Signal generator and loop.

(b) Place the signal generator about two feet away from t receiver. Turn the output of the signal generator to maximum.

(c) Put the top cover, azimuth scale, and loop on the receiv

(d) Set the signal generator at 1900 kc, and tune in this the A band of the receiver. Rotate the receiver loop, if necessary, that both pointers give a reading. If the pointers go off scale, redu the sensitivity of the receiver by rotating the **SENSITIVITY** contr counterclockwise (to the left).

(e) Peak the A band loop trimmers marked **A LOOP 1** a **A LOOP 2** (fig. 34) for maximum pointer deflection. Be sure that yo watch the right pointer when peaking the right trimmer and the lef pointer when peaking the left trimmer. Disregard slight movement of the other pointer while making this adjustment.

(8) Peak the B band loop trimmers.—

(a) Repeat steps (a), (b) and **(c)** under paragraph **28b**(7)

(b) Set the signal generator at 3,000 kc and tune in thi signal on the B band of the receiver. Rotate the receiver loop, if neces sary, so that both pointers give a reading. If the pointers go off scale reduce the sensitivity of the receiver.

(c) Peak the B band loop trimmers marked **B LOOP 1** an **B LOOP 2** (fig. 34) for maximum pointer deflection. Be sure to watc the corresponding pointer during this adjustment, and disregard an slight movements of the other pointer.

c. Alignment of Radio Receiver BC-1003-B.—

(1) Align the 4th i-f stage.—

(a) Connect the ground terminal of the signal generator t the chassis of the receiver. Use a convenient point near the input end of the receiver, such as the grounded tap on the **PRESS TO BAL ANCE** control.

(b) Connect the hot terminal of the signal generator to the grids of the 3d i-f tubes in both channels by means of two leads.

(c) Turn on the signal generator and set the frequency accurately to 1625 kc and the output to 200,000 microvolts.

(d) Turn on the receiver and set the **SENSITIVITY** control to maximum.

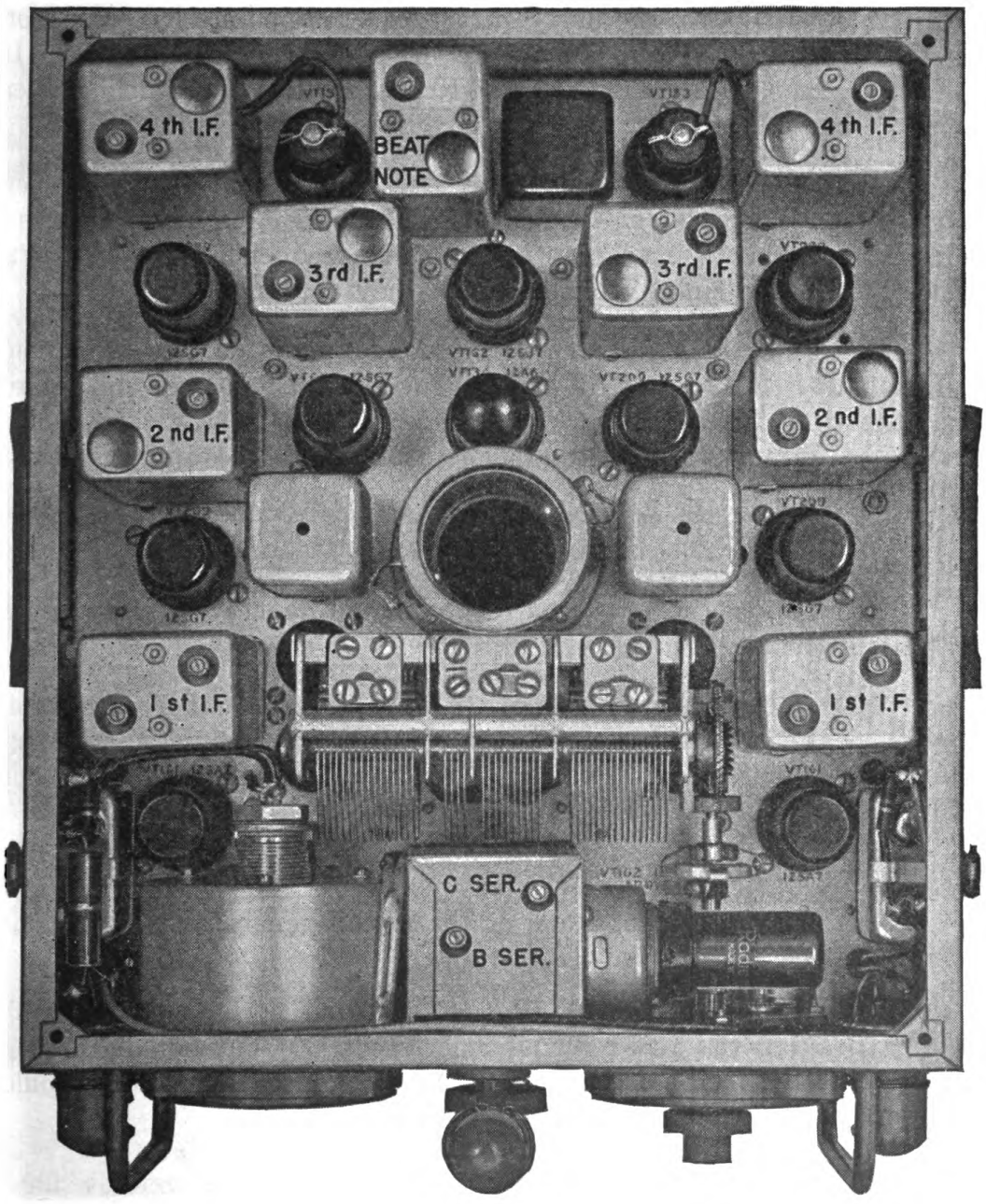


FIGURE 36. Radio Receiver BC-1003-B, B and C series, and i-f trimmer location.

(e) Trim the 4th i-f transformer (fig. 36) in each channel for maximum pointer deflection. Push in the **PRESS TO BALANCE** control and turn it as far as possible in a clockwise (to the right) and counterclockwise (to the left) direction. The pointer intersection should swing to the right and to the left about the same amount. If it doesn't, then interchange the 3d i-f tubes, or try substituting other tubes in one of the channels until matched tubes are found.

(f) Rotate the signal generator dial so that the frequency varies a few kilocycles above and below 1625 kc. The meter pointers should both reach a maximum at the same frequency. If they don't, repeak the i-f trimmers carefully until they do.

(g) Set the signal generator for maximum pointer deflection. Adjust the **PRESS TO BALANCE** control and generator output so that the tips of the pointers just come together on the zero center line. The output of the signal generator should be approximately 200,000 microvolts.

(2) Align the 3d i-f stage.—

(a) Move the hot leads of the signal generator to the grids (4 pin) of the 2d i-f tubes.

(b) Repeat steps **(c), (d), (e), (f)** and **(g)** under paragraph **28c(1)**, peaking the 3d i-f transformers (fig. 36) but not disturbing the 4th i-f transformers. The signal generator output should be about 3500 microvolts.

(3) Align the 2d i-f stage.—

(a) Move the hot leads of the signal generator to the grids (4 pin) of the 1st i-f tubes.

(b) Repeat steps **(c), (d), (e), (f)** and **(g)** under paragraph **28c(1)**, peaking the 2d i-f transformers (fig. 36) but not disturbing the 3d or 4th i-f transformers. The signal generator output should be approximately 60 microvolts.

(4) Align the 1st i-f stage.—

(a) Move the hot leads of the signal generator to the grids (8 pin) of the mixer tubes. SEE THAT THE SIGNAL GENERATOR LEADS ARE NOT CLOSE TO THE 4TH I-F END OF THE RECEIVER.

(b) Repeat steps **(c)**, **(d)**, **(e)**, **(f)** and **(g)** under paragraph **28c(1)**. The i-f sensitivity at this point should be approximately 8 microvolts. Do not disturb trimmers of previously aligned stages.

(5) Adjust the beat frequency oscillator.—

(a) Set the signal generator to 1625 kc.

(b) Tune the beat frequency oscillator until an audible beat-note results.

(6) Peak the oscillator trimmers for band C.—

(a) Set the **FREQ. BAND** switch on the front panel of the receiver to band C.

(b) Rotate the tuning dial of the receiver to exactly 1000 kc.

(c) Connect the hot leads of the signal generator to the top lugs of the tuning capacitor.

(d) Set the signal generator accurately at 1000 kc with an output of about 10 microvolts, and adjust the trimmer marked **C PAR.** (fig. 37) for maximum pointer deflection.

(e) Set the tuning dial of the receiver and the signal generator to 450 kc. The output of the signal generator should be approximately 10 microvolts. Adjust **C SER.** trimmer (fig. 36) for maximum pointer deflection.

(f) Adjusting the series trimmer will affect the adjustment of the parallel trimmer slightly. Therefore, repeat steps **(c)** and **(d)** under paragraph **28c(6)** several times until a stabilized point is reached where no further adjustment of trimmers is necessary.

(7) Peak the oscillator trimmer for band B.—

(a) Set the **FREQ. BAND** switch on the front panel of the receiver to band B.

(b) Set the tuning dial of the receiver to exactly 450 kc.

(c) Set the signal generator accurately to 450 kc with an output voltage of approximately 10 microvolts and adjust trimmer marked **B PAR.** (fig. 37) for maximum pointer deflection.

(d) Set tuning dial of the receiver and signal generator to 200 kc. The output of signal generator should be about 10 microvolts. Adjust **B SER.** trimmer (fig. 36) for maximum pointer deflection.

(e) Adjusting the series trimmer will affect the adjustmen of the parallel trimmer slightly. Therefore, repeat steps **(c)** and (d under paragraph **28c(7)** a few times until a stabilized point is reache where no further adjustment of trimmers is necessary.

(8) Peak the oscillator trimmers for band A.—

(a) Set the **FREQ. BAND** switch on the front panel of th receiver to band A.

(b) Rotate the tuning dial of the receiver to exactly 200 kc

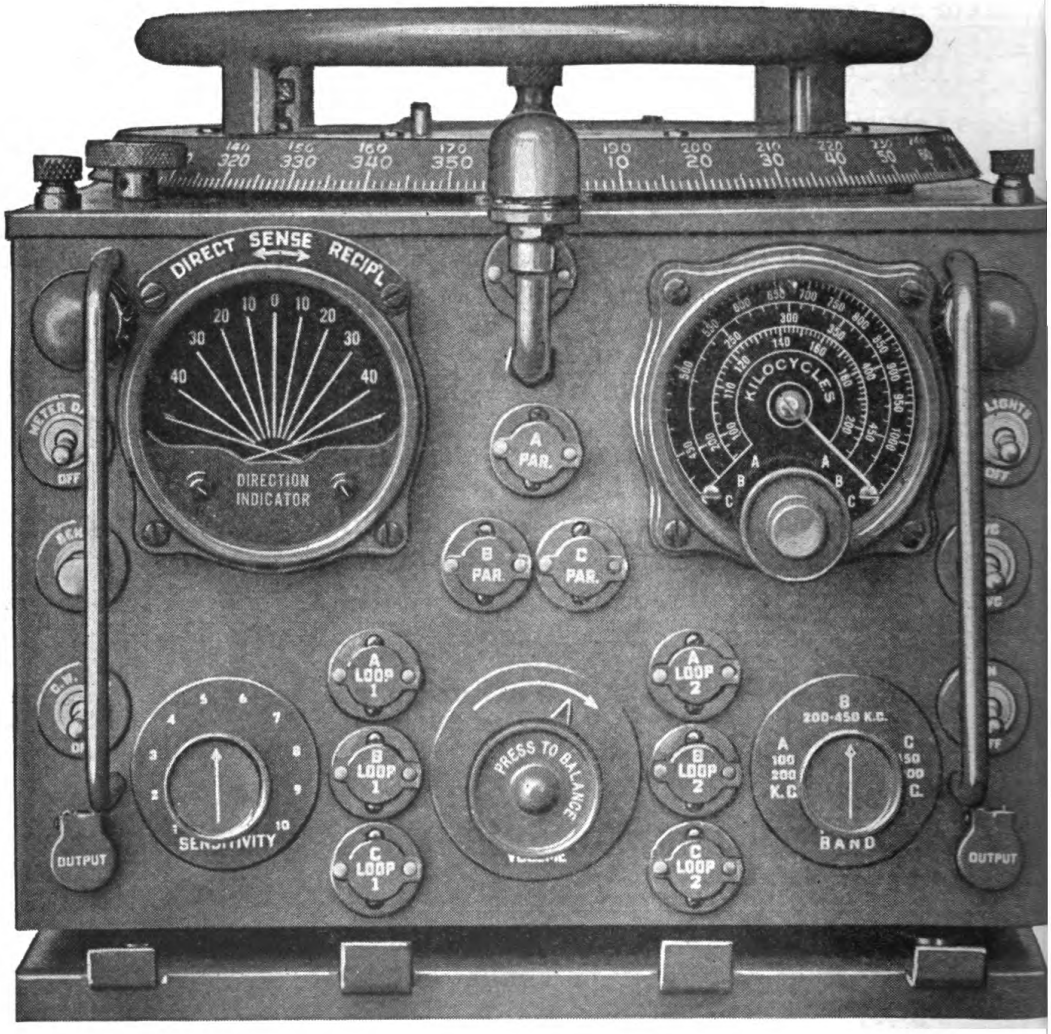


FIGURE 37. Radio Receiver BC-1003-B, oscillator and loop trimmer location.

(c) Set the signal generator accurately to 200 kc with an output of about 10 microvolts and adjust trimmer marked **A PAR.** (fig. 37) for maximum pointer deflection.

(d) Set the tuning dial of the receiver and the signal generator to 100 kc. The output of the signal generator should be approximately 10 microvolts. Adjust trimmer marked **A SER.** (fig. 37) for maximum pointer deflection.

(e) Adjusting the series trimmer will affect the adjustment of the parallel trimmer slightly. Therefore, repeat steps **(c)** and **(d)** under paragraph 28c(8) several times until a stabilized point is reached where no further adjustment of trimmers is necessary.

(9) Peak the A band loop trimmers.—

Always align all the loop trimmers using a high enough signal strength so that it is necessary to reduce the sensitivity control from maximum to the point marked 7.

(a) Feed the signal generator into a single turn loop (fig. 35).

(b) Place the signal generator about two feet away from the receiver. Turn the output of the signal generator to maximum.

(c) Put the top cover, azimuth scale, and loop on the receiver.

(d) Set the signal generator at 200 kc and tune in this signal on the A band of the receiver. Rotate the receiver loop, if necessary, so that both pointers give a reading. If the pointers go off scale, reduce the sensitivity of the receiver by turning down the **SENSITIVITY** control.

(e) Peak the A band loop trimmers marked **A LOOP 1** and **A LOOP 2** (fig. 37) for maximum pointer deflection. Be sure that you watch the right pointer when peaking the right trimmer, and the left pointer when peaking the left trimmer. Disregard slight movements of the other pointer while making this adjustment.

(10) Peak the B band loop trimmers.—

(a) Repeat steps **(a)**, **(b)**, and **(c)** under paragraph 28c(9).

(b) Set the signal generator at 450 kc and tune in this signal on the B band of the receiver. Rotate the receiver loop, if necessary, so that both pointers give a reading. If the pointers go off scale, reduce the sensitivity of the receiver.

(c) Peak the B band loop trimmers marked **B LOOP 1** and **B LOOP 2** (fig. 37) for maximum pointer deflection. Be sure to watch right pointer when peaking right trimmer and left pointer when peaking left trimmer. Disregard slight movements of the other pointer.

(11) Peak the C band loop trimmers.—

(a) Repeat steps **(a)**, **(b)**, and **(c)** under paragraph **28c(9)**.

(b) Set the signal generator at 1000 kc and tune in this signal on the C band of the receiver. Rotate the receiver loop, if necessary, so that both pointers give a reading. If both pointers go off scale, turn down the sensitivity of the receiver.

(c) Peak the C band loop trimmers marked **C LOOP 1** and **C LOOP 2** (fig. 37) for maximum pointer deflection. Be sure that you watch the pointer which corresponds to the trimmer you are adjusting. Disregard any slight movements of the other pointer.

SPECIAL PRECAUTIONS

Several points are necessary for the proper operation of Radio Receiver BC-973-B and Radio Receiver BC-1003-B. These should be understood thoroughly by the personnel maintaining the equipment.

1. The gain of the two i-f channels must be almost the same for the **PRESS TO BALANCE** control can only take care of minor gain variations. Therefore, match the tubes carefully. Also check to see if the gain in each channel remains equal at various settings of the **SENSITIVITY** control because some tubes will match at maximum sensitivity but not at lower sensitivity.

2. The two loops must be identical in order to determine an accurate bearing. Be very careful when making any repairs on them. NEVER DO THIS IN THE FIELD. Be sure that the bolts, which fasten the lower outer loop shield to the upper outer loop shield, do not short the shields together. These bolts are insulated by means of bakelite sleeves. If the loop is opened for any reason, be sure to close it and seal with glyptol.

3. The loop loading coils of Radio Receiver BC-973-B must be exact duplicates. In Radio Receiver BC-1003-B, the loop loading coils must also be alike. If you find a broken wire in any of these coils, replace the defective coil. DON'T TRY TO REPAIR IT.

The following diagrams and photographs will help in the maintenance of Radio Set SCR-503-B. They may be used as a means of identification for the purpose of replacing parts. Additional miscellaneous photographs will be found in Section V.

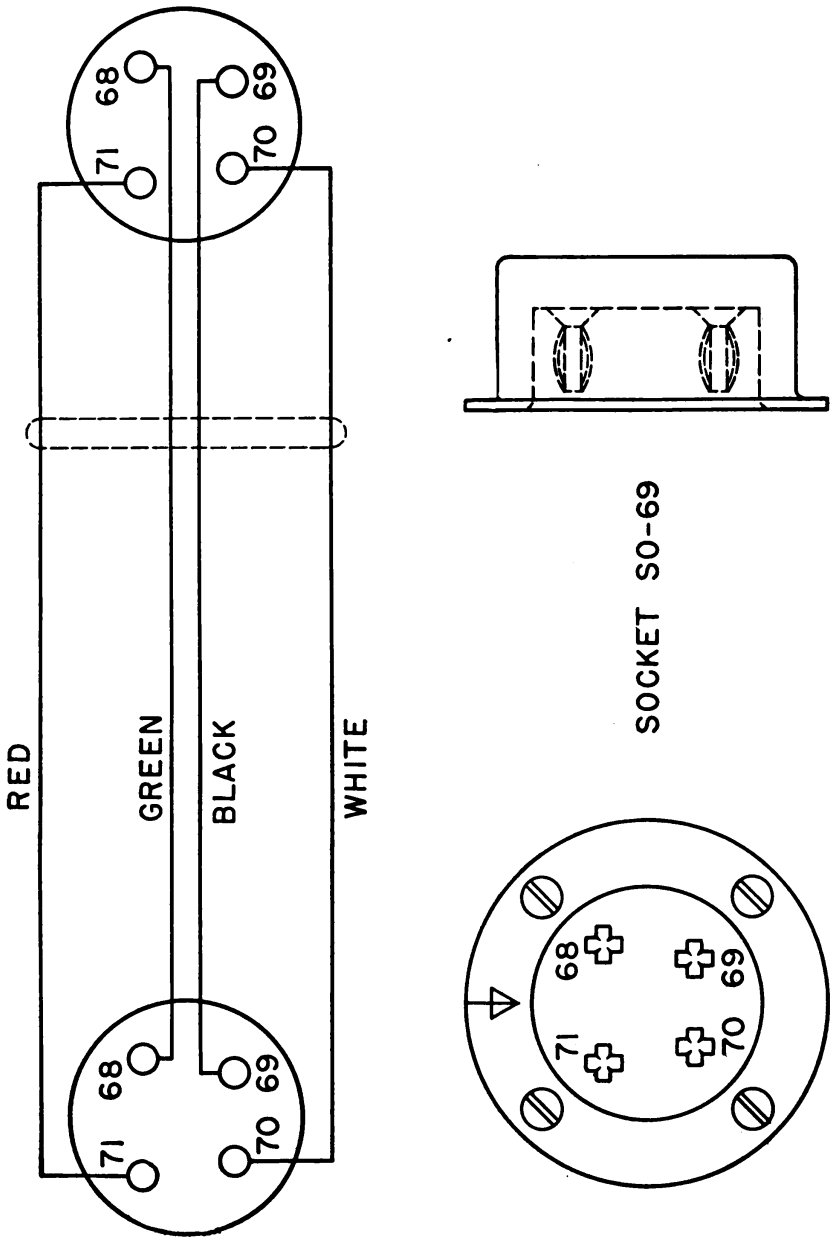


FIGURE 38. Power Cord CD-673-B, wiring diagram.

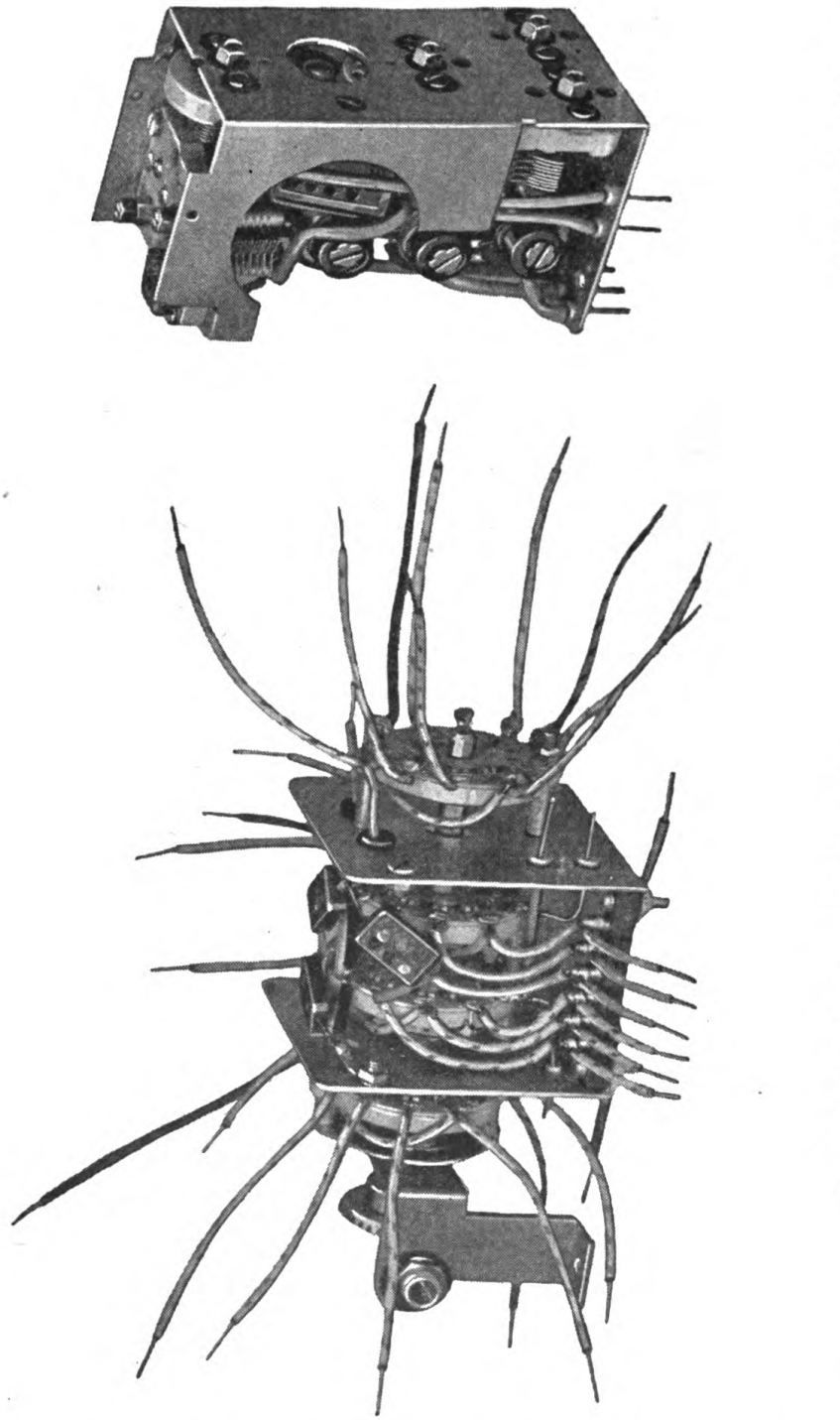
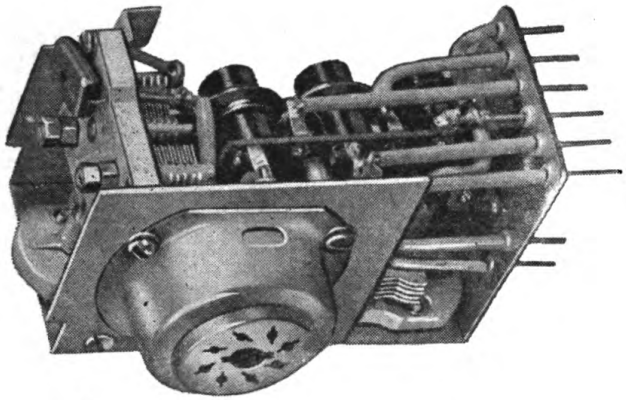
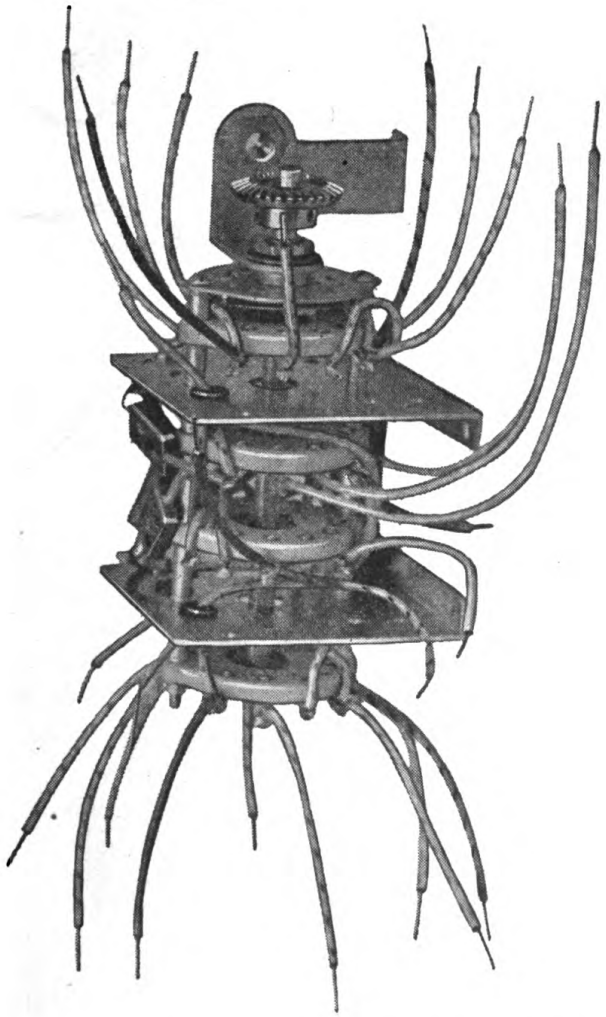


FIGURE 39. Radio Receiver BC-1003-B, oscillator and band switch assembly, front view.

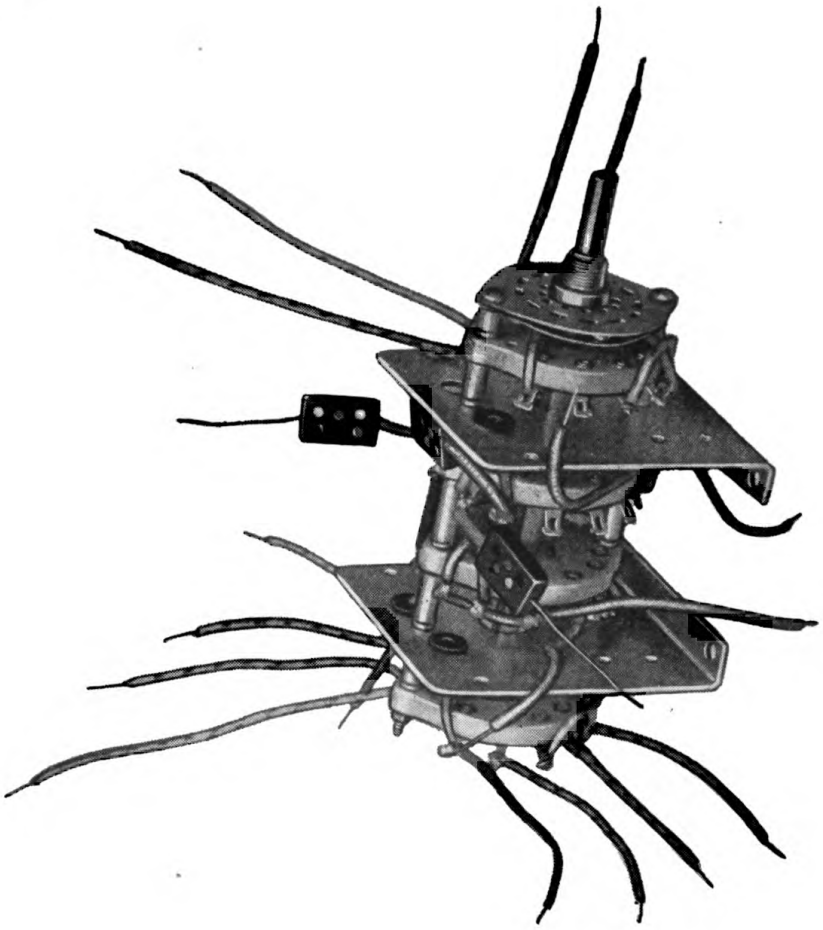


OSCILLATOR

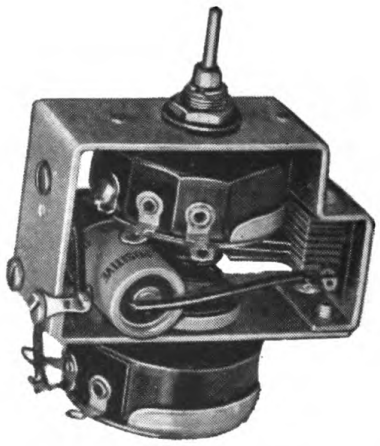


BAND SWITCH ASSEMBLY

FIGURE 40. Radio Receiver BC-1003-B, oscillator and band switch assembly, rear view.



BAND SWITCH



VOLUME AND BALANCE CONTROL

FIGURE 41. Radio Receiver BC-1003-B, volume and balance control, and band switch.

SECTION V

SUPPLEMENTARY DATA

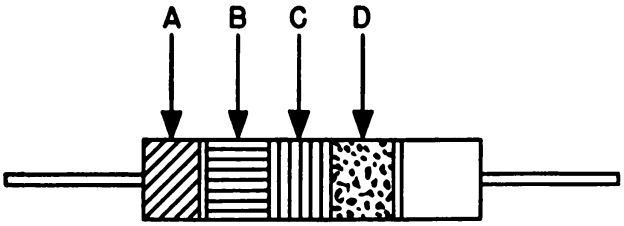
29.—RMA COLOR CODE FOR RESISTORS AND CAPACITORS.—

Color	*Significant Figure*	*Multiplier*	*Tolerance*	*Voltage Rating*
Black	0	1	.....	.....
Brown	1	10	1%	100 Volts
Red	2	100	2%	200 Volts
Orange	3	1,000	3%	300 Volts
Yellow	4	10,000	.....	400 Volts
Green	5	100,000	5%*	500 Volts
Blue	6	1,000,000	10%*	600 Volts
Violet	7	10,000,000	.....	700 Volts
Gray	8	100,000,000	.....	800 Volts
White	9	1,000,000,000	2.5%	.....
*Gold	...	0.1	5%*	.....
*Silver	...	0.01	10%*	.....
*No Color	...	...	20%	500 Volts

**NOTE: Use of the colors Green and Blue in place of Gold and Silver is optional in order to avoid use of strategic materials and effect of metallic content paints.*

a. Resistors.—The rated resistance value of fixed carbon resistors is indicated in three manners.

The one in most common use for axial lead resistors indicates the value of bands of color as follows:



AXIAL LEAD TYPE

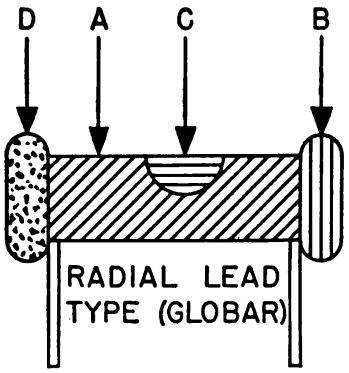
Band A indicates the first significant figure of the resistance of the resistor.

Band B indicates the second significant figure.

Band C indicates the multiplier.

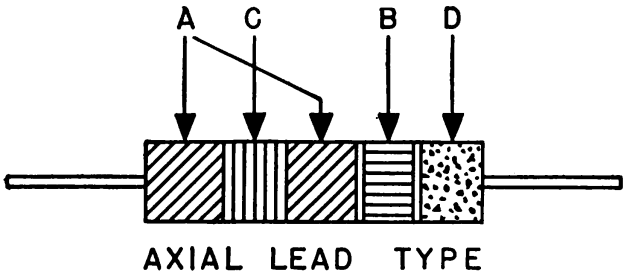
*Band D, if any, indicates the tolerance limits about the rated resistance value. No tolerance color indicates 20%.

For radial lead resistors (such as Globar) the following system of indicating rated resistance value is used:



The body (A) of the resistor is colored to represent the first significant figure of the resistance value. One end (B) is colored to represent the second significant value, and a dot (C) of color, located within the body color, indicates the multiplier. Tolerance is indicated by color (gold or silver) on other end of resistor. No tolerance color indicates 20%.

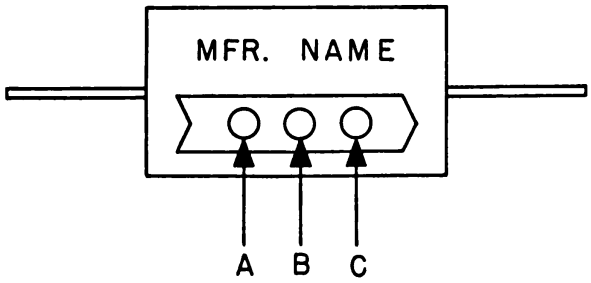
A system, not too commonly used at present, for indicating rated resistance value of axial lead resistors is as follows:



The body (A) of the resistor is colored to represent the first significant figure of the resistance value. Band (B) is colored to represent the second significant figure and a band or dot (C) of color, located within the body color, indicates the multiplier. *Band D, if any, indicates tolerance. No tolerance color indicates 30%.

b. Capacitors.—Two systems for color coding small fixed capacitors are in use. The colors used to designate these significant digits in μf are listed in the chart. Codes are read from left to right in the position required for reading of words molded in case, or by arrow.

In general, capacitors having a working voltage of 500 volts are coded by means of three dots of color as follows:



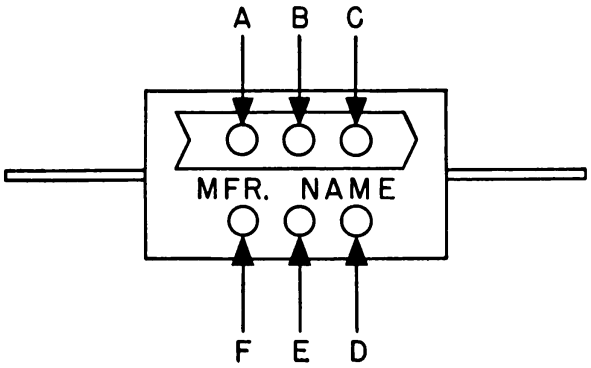
Dot A indicates the first significant figure of the capacitance of the capacitor.

Dot B indicates the second significant figure.

Dot C indicates the multiplier.

An additional dot is sometimes shown, indicating the voltage rating of the capacitor when the working voltage is other than 500 volts.

A second system now coming into common use involves six dots of color as follows:



Dot A indicates the first significant figure of the capacitance of the capacitor.

Dot B indicates the second significant figure.

Dot C indicates the third significant figure.

Dot D indicates the multiplier.

*Dot E indicates the tolerance of the rated capacitance value.

Dot F indicates the voltage rating of the capacitor.

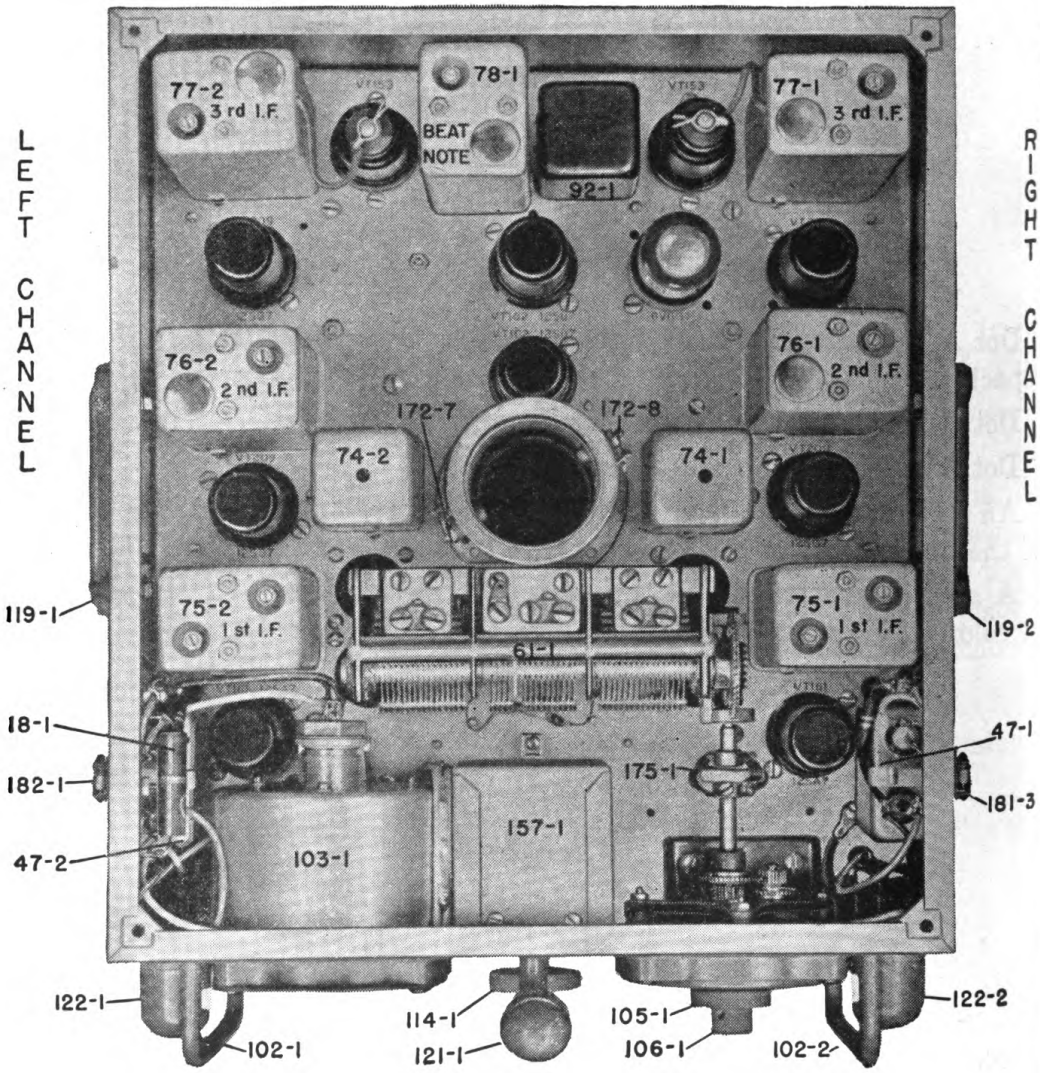


FIGURE 42. Chassis of Radio Receiver BC-973-B, top view showing location of parts.

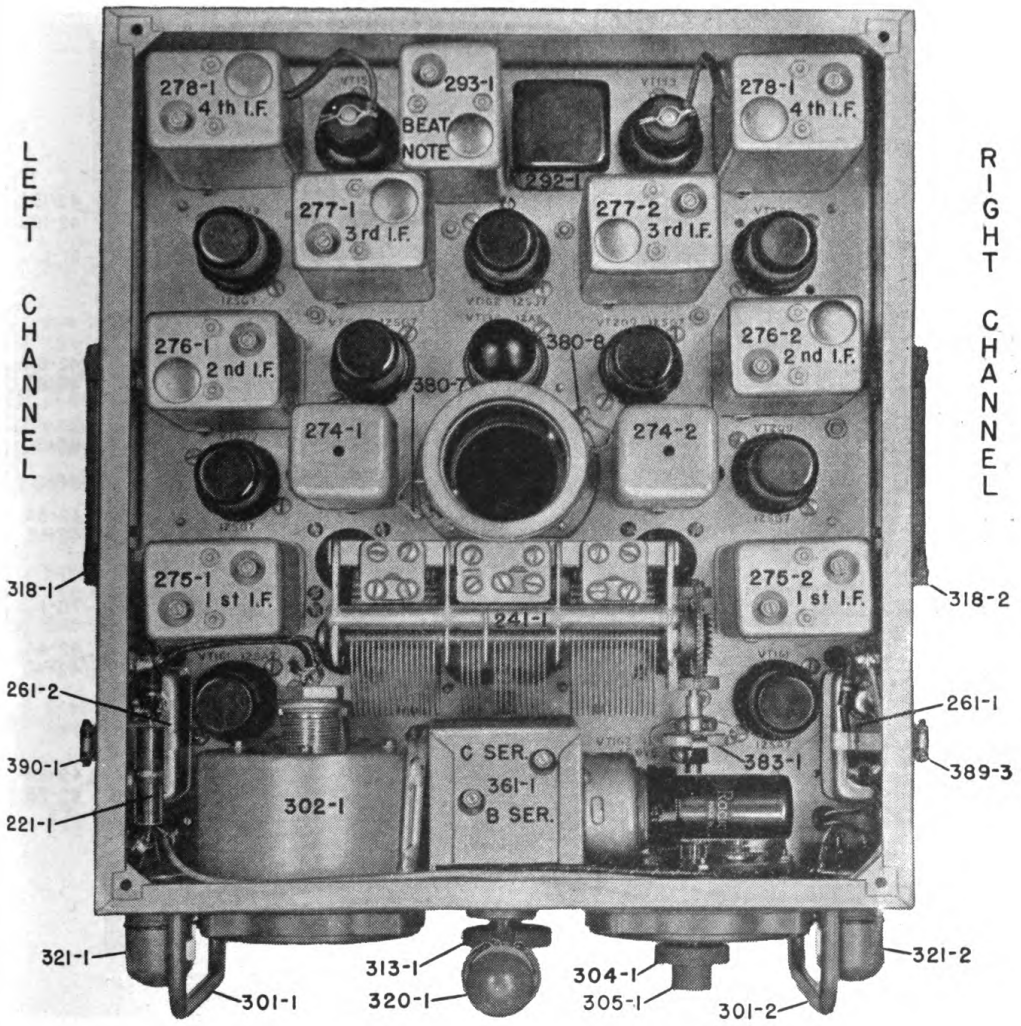


FIGURE 43. Chassis of Radio Receiver BC-1003-B, top view showing location of parts.

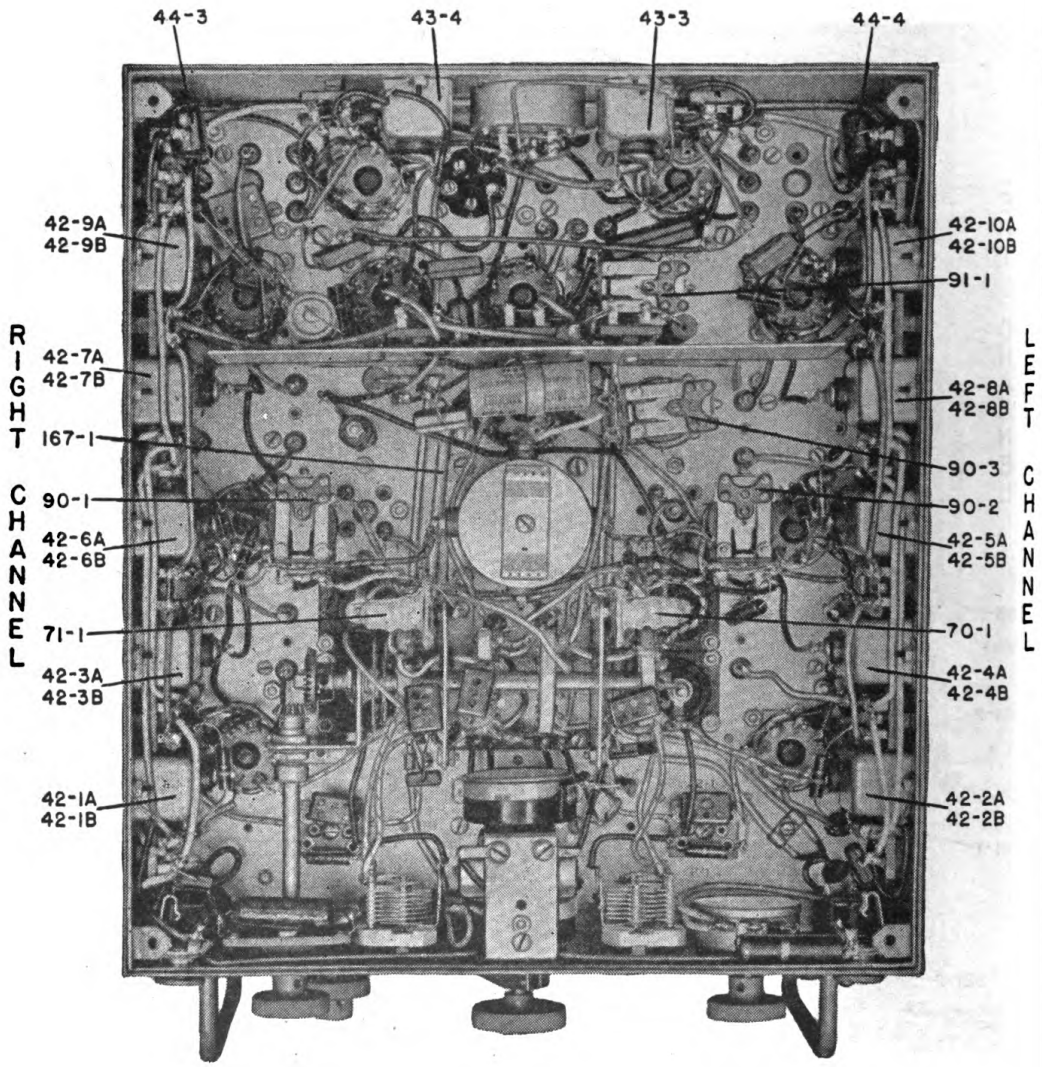


FIGURE 44. Chassis of Radio Receiver BC-973-B, bottom view showing location of parts.

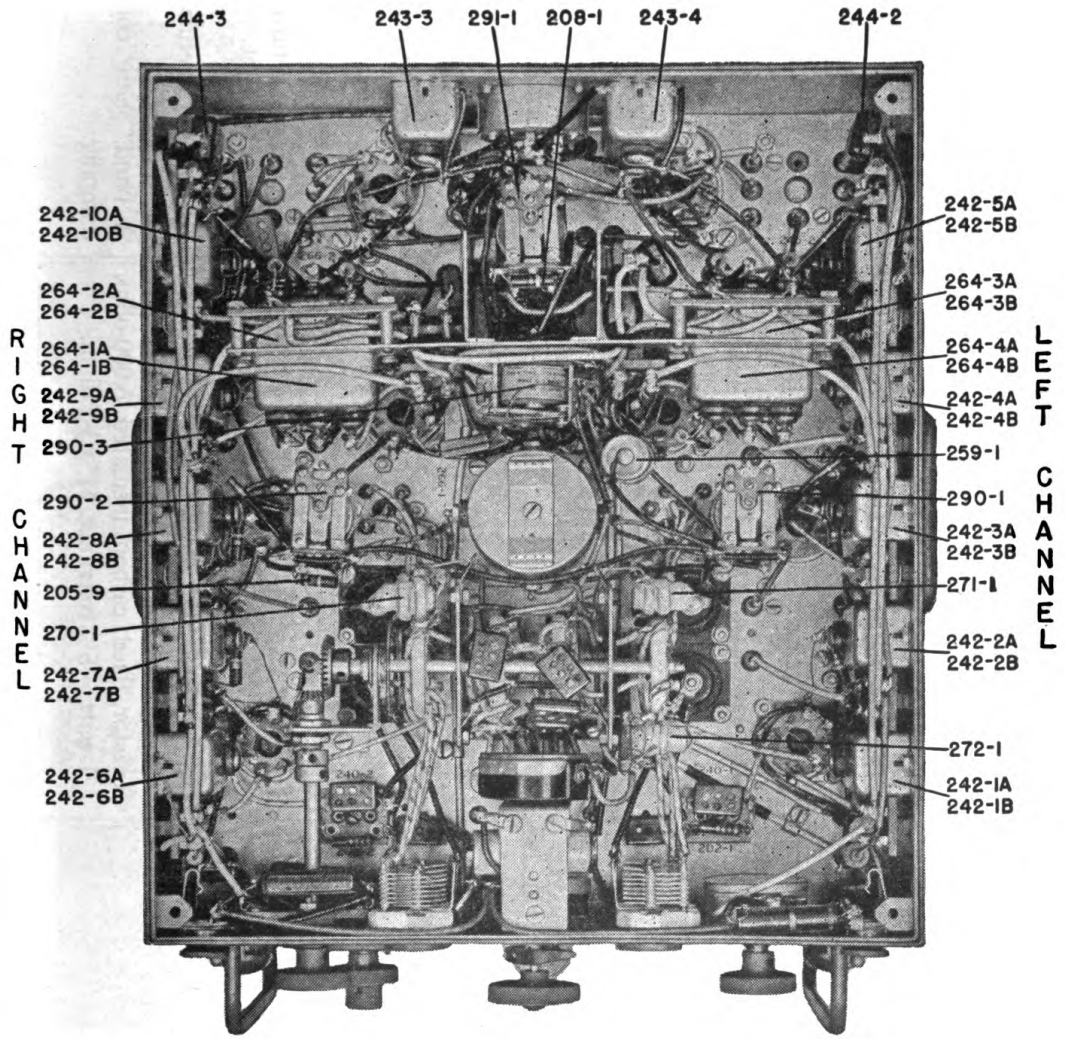


FIGURE 45. Chassis of Radio Receiver BC-1003-B, bottom view showing location of parts.

30. TABLE OF REPLACEABLE PARTS.—

a. Radio Receiver BC-973-B.—

NOTE: (1) The list of parts is intended to supplement the Signal Corps General Catalog until such time as the Catalog is revised to include the stock numbers of Radio Set SCR-503-B. Order replacement parts by stock numbers, name, and description.

(2) The location of all parts are made with respect to the top view of the radio receivers in an upright position with the front panel toward you. When looking at the bottom of the chassis, the left channel is on the right side and the right channel is on the left side.

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
#1	1–1		Resistor, fixed, carbon, insulated, 50-ohm, 1-watt, ±5% tolerance, ¾" x ¼" diameter.	Sense antenna load.	5	P416-46
#3	2–1		Resistor, fixed, carbon, insulated, 35,000-ohm, ½-watt, ±5% tolerance, ⅝" x 3/16" diam. (Same as 2-2, 2-3.)	Injector grid return, mixer tube, left.	5	P416-9
..	2–2		Same as 2-1.	Injector grid return, mixer tube, right.	..	....
..	2–3		Same as 2-1.	Oscillator grid return.	..	....
#1	3–1		Resistor, fixed, carbon, insulated, 5,000-ohm, 1-watt, ±5% tolerance, ¾" x ¼" diam.	A band, sense coil damping.	5	P416-40

#2	4–1		Resistor, fixed, carbon, insulated, 500-ohm, 1-watt, ±5% tolerance, ¾" x ¼" diam. (Same as 4-2.)	Left, mixer cathode.	5	P416-43
..	4–2		Same as 4-1.	Right, mixer cathode.	..	....
#6	5–2		Resistor, fixed, carbon, insulated, 50,000-ohm, ½-watt, ±5% tolerance, ⅝" x 3/16" diam. (Same as 5-3, 5-4, 5-7, 5-8, 5-9.)	Screen bleeder resistor, 1st i-f right.	5	P416-2
..	5–3		Same as 5-2.	Screen bleeder resistor, 1st i-f, left.	..	....
..	5–4		Same as 5-2.	Screen bleeder resistor, 2d i-f, right.	..	....
..	5–7		Same as 5-2.	Screen bleeder resistor, 2d i-f, left.	..	....
..	5–8		Same as 5-2.	Screen bleeder resistor, mixer, right.	..	....
..	5–9		Same as 5-2.	Screen bleeder resistor, mixer, left.	..	....
#4	6–3		Resistor, fixed, carbon, insulated, 100,000-ohm, 1-watt, ±5% tolerance, ¾" x ¼" diam. (Same as 6-4, 6-5, 6-6.)	1st i-f, right, AVC isolating resistor.	5	P416-35

#Furnished by contractor as part of maintenance parts group.
*Furnished with equipment as a running or equipment spare.
The word special indicates part made for, or by the contractor.

30. TABLE OF REPLACEABLE PARTS.— a. Radio Receiver BC-973-B.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
..	6–4		Same as 6-3.	1st i-f, left, AVC isolating resistor.	..	....
..	6–5		Same as 6-3.	2d i-f, right, AVC isolating resistor.	..	....
..	6–6		Same as 6-3.	2d i-f, left, AVC isolating resistor.	..	....
#6	7–1		Resistor, fixed, carbon, insulated, 2,000-ohm, 1-watt, ±5% tolerance, ¾" x ¼" diam. (Same as 7-2, 7-3, 7-4, 7-5, 7-6.)	1st i-f, right, B+ isolating resistor.	5	P416-36
..	7–2		Same as 7-1.	1st i-f, left, B+ isolating resistor.	..	....
..	7–3		Same as 7-1.	2d i-f, right, B+ isolating resistor.	..	....
..	7–4		Same as 7-1.	2d i-f, left, B+ isolating resistor.	..	....
..	7–5		Same as 7-1.	3d i-f, left, B+ isolating resistor.	..	....
..	7–6		Same as 7-1.	3d i-f, right, B+ isolating resistor.	..	....

#4	8–1		Resistor, fixed, carbon, insulating, 300-ohm, ½-watt, ±5% tolerance, 5/16" x 3/16" diam. (Same as 8-2, 8-3, 8-4.)	Cathode resistor, 1st i-f, right.	5	P416-6
..	8–2		Same as 8-1.	Cathode resistor, 1st i-f, left.	..	....
..	8–3		Same as 8-1.	Cathode resistor, 2d i-f, right.	..	....
..	8–4		Same as 8-1.	Cathode resistor, 2d i-f, left.	..	....
#1	9–1		Resistor, fixed, carbon, insulated, 1,000-ohm, 1-watt, ±5% tolerance, ¾" x ¼" diameter.	Cathode resistor for VT-107-A.	5	P416-41
#6	10–1		Resistor, fixed, carbon, insulated, 35,000-ohm, 1-watt, ±5% tolerance, ¾" x ¼" diam. (Same as 10-2, 10-3, 10-4, 10-5, 10-6.)	Screen dropping resistor, 1st i-f, right.	5	P416-37
..	10–2		Same as 10-1.	Screen dropping resistor, 1st i-f, left.	..	....
..	10–3		Same as 10-1.	Screen dropping resistor, 2d i-f, right.	..	....
..	10–4		Same as 10-1.	Screen dropping resistor, 2d i-f, left.	..	....
..	10–5		Same as 10-1.	Screen dropping resistor, mixer, right.	..	....
..	10–6		Same as 10-1.	Screen dropping resistor, mixer, left.	..	....

30. TABLE OF REPLACEABLE PARTS.— a. Ra dio Receiver BC-973-B.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
#1	11–1		Resistor, fixed, carbon, insulated, 500,000-ohm, ½-watt, ±5% tolerance, ⅝" x 3/16" diameter.	Grid resistor for VT-107-A.	5	P416-8
#2	12–1		Resistor, fixed, carbon, insulated, 10,000-ohm, ½-watt, ±5% tolerance, ⅝" x 3/16" diam. (Same as 12-3.)	Meter isolating resistor, right.	5	P416-3
..	12–3		Same as 12-1.	Meter isolating resistor, left.	..	....
#2	13–1		Resistor, fixed, carbon, insulated, 1 megohm, ½-watt, ±5% tolerance, ⅝" x 3/16" diam. (Same as 13-2.)	Screen dropping resistor, beat oscillator screen.	5	P416-4
..	13–2		Same as 13-1.	Screen dropping resistor, 1st audio.	..	....
#1	14–1		Resistor, fixed, carbon, insulated, 150,000-ohm, ½-watt, ±5% tolerance, ⅝" x 3/16" diameter.	Plate load, beat oscillator.	5	P416-10
#3	15–1		Resistor, fixed, carbon, insulated, 75,000-ohm, 1-watt, ±5% tolerance, ¾" x ¼" diam. (Same as 15-2, 15-3.)	R-F filter.	5	P416-39
..	15–2		Same as 15-1.	Plate load, 1st audio.	..	....

..	15–3		Same as 15-1.	R-F filter.	..	....
#2	16–1		Resistor, fixed, carbon, insulated, 20-ohm, 2-watt, ±5% tolerance, 1⅜″ x ⅜″ diam. (Same as 16-2.)	Bias resistor.	5	P416-71
..	16–2		Same as 16-1.	Relay dropping resistor.	..	....
#1	17–1		Resistor, fixed, wire wound, insulated, 15-ohm, 10-watt, ±5% tolerance. Core size is 7/16″ x 2″. 2—#40 lugs 9/32″ x 9/16″ (⅛″ hole). Special.	Filament dropping resistor, VT-107-A.	24	P425-108
#1	18–1		Resistor, fixed, carbon, insulated, 100-ohm, 2-watt, ±5% tolerance, 1⅜″ x ⅜″ diam.	Microphone current limiter.	5	P416-74
#2	19–1		Resistor, fixed, carbon, insulated, 120-ohm, ½-watt, ±10% tolerance, ⅝″x3/16″ diameter. (Same as 19-2.)	Mixer cathode, right.	5	P416-17
..	19–2		Same as 19-1.	Mixer cathode, left.	..	....
#1	20–1		Resistor, fixed, carbon, insulated, 4,000-ohm, 2-watt, ±5% tolerance, 1⅜″ x ⅜″ diam.	Oscillator plate load.	5	P416-73
#4	21–1		Resistor, fixed, carbon, insulated, 100-ohm, ½-watt, ±5% tolerance, ⅝″ x 3/16″ diam. (Same as 21-2, 21-3, 21-4.)	1st i-f cathode, right.	5	P416-11
..	21–2		Same as 21-1.	1st i-f cathode, left.	..	....
..	21–3		Same as 21-1.	2d i-f cathode, right.	..	....

30. TABLE OF REPLACEABLE PARTS.— a. Radio Receiver BC-973-B.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
..	21–4		Same as 21-1.	2d i-f cathode, left.	..	....
#1	22–1		Potentiometer, wire wound, 20,000-ohm, ±20% tolerance, and special shaft (¼" x 1⅜"); 1⅝" diameter. Taper, at 50% rotation is 4,000 ohms. Type #58.	Volume control.	9	P430-107
#1	23–1		Potentiometer, wire wound, 60,000-ohm, ±20% tolerance, 7/32" shaft; 1⅝" diameter, linear. Type #58.	Balance control.	9	P430-106
#1	24–1		Potentiometer, wire wound, 1,500-ohm, ±20% tolerance, 7/32" shaft; 1⅝" diameter. Taper, at 50% rotation is 1,100 ohms. Special.	Sensitivity control.	10	P430-109
#2	25–1		Resistor, fixed, carbon, insulated, 5600-ohm, ½-watt, ±10% tolerance, ⅝" x 3/16" diam. (Same as 25-2.)	Diode series resistor, right.	5	P416-14
..	25–2		Same as 25-1.	Diode series resistor, left.	..	....
#2	40–1		Capacitor, 25μf, 25 w-v, electrolytic, tubular. Size—11/16" diam. x 1 11/16" long. (Same as 40-2.) Type MMS.	By-pass for balance switch.	2	P301-111

..	40–2		Same as 40-1.	By-pass for sense relay.	..	....
#1	41–1		Capacitor, 10 μf, 25 w-v, electrolytic, tubular. Size—11/16" diam. x 1 11/16" long. Type MMS.	VT-107-A cathode by-pass.	2	P301-112
#10	42–1A 42–1B		Capacitor, dual; .1 μf. Bathtub, 400 w-v, +14%−15% tolerance. Size—1 13/16" x 1" x 13/16". Two terminals. (Same as 42-2A, 42-2B, 42-3A, 42-3B, 42-4A, 42-4B, 42-5A, 42-5B, 42-6A, 42-6B, 42-7A, 42-7B, 42-8A, 42-8B, 42-9A, 42-9B, 42-10A, 42-10B.) Type BA.	Cathode and screen by-pass for VT-161 mixer, right.	2	P302-126
..	42–2A 42–2B		Same as 42-1A, 42-1B.	Cathode and screen by-pass for VT-161 mixer, left.	..	....
..	42–3A 42–3B		Same as 42-1A, 42-1B.	1st i-f, B+ and AVC by-pass, right.	..	....
..	42–4A 42–4B		Same as 42-1A, 42-1B.	1st i-f, B+ and AVC by-pass, left.	..	....
..	42–5A 42–5B		Same as 42-1A, 42-1B.	Cathode and screen by-pass, 1st i-f, VT-209, left.	..	....
..	42–6A 42–6B		Same as 42-1A, 42-1B	Cathode and screen by-pass, 1st i-f, VT-209, right.	..	....

30. TABLE OF REPLACEABLE PARTS.— a. Radio Receiver BC-973-B.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
..	42–7A 42–7B		Same as 42-1A 42-1B.	2d i-f, B+ and AVC by-pass, right.	..	....
..	42–8A 42–8B		Same as 42-1A 42-1B.	2d i-f, B+ and AVC by-pass, left.	..	....
..	42–9A 42–9B		Same as 42-1A 42-1B.	Cathode and screen by-pass, 2d i-f, VT-209, right.	..	....
..	42–10A 42–10B		Same as 42-1A 42-1B.	Cathode and screen by-pass, 2d i-f, VT-209, left.	..	....
#2	43–3		Capacitor, .5 μf, 400 w-v. Bathtub, +14% −6% tolerance, two terminals. Size—1 13/16" x 1" x 13/16". (Same as 43-4.) Type BAE.	B+ by-pass.	2	P302-128
..	43–4		Same as 43-3.	Filament by-pass.	..	....
#4	44–1		Capacitor, moulded paper, .1 μf, 400 w-v, rectangular. Size—1 13/32" x 3/4" x 3/8". ±20% tolerance. (Same as 44-2, 44-3, 44-4.) Type 345.	Sense control by-pass.	3	P302-131-1
..	44–2		Same as 44-1.	Beat oscillator coupling capacitor.	..	....

..	44–3	Same as 44-1.	Right, meter by-pass.	..	....
..	44–4	Same as 44-1.	Left, meter by-pass.	..	....
#1	45–1	Capacitor, moulded paper, .03 μf, 400 w-v, ±20% tolerance, rectangular. Size—1 13/32" x 3/4" x 3/8". Type 342.	VT-107-A grid coupling.	3	P302-131-2
#3	46–1	Capacitor, moulded paper, .01 μf, 400 w-v, ±20% tolerance, rectangular. Size—1 13/32" x 3/4" x 3/8". (Same as 46-2, 46-3.) Type 340.	AVC by-pass.	3	P302-131-3
..	46–2	Same as 46-1.	AVC by-pass.	..	....
..	46–3	Same as 46-1.	Screen by-pass, beat oscillator.	..	....
#2	47–1	Capacitor, electrolytic, 500 μf, 6 w-v, ±20% tolerance. Size—1 3/4" x 2" x 7/8". (Same as 47-2.) Type BE.	Right, meter damping.	2	P302-132
..	47–2	Same as 47-1.	Left, meter damping.	..	....
#2	48–1	Capacitor, silver mica, 80 μμf, 500 v, ±2% tolerance, rectangular. Size—11/64"x11/16"x7/16". (Same as 48-2.) Type MOS Mica.	Right, A band trimmer shunt.	33	P303-113-11
..	48–2	Same as 48-1.	Left, A band trimmer shunt.	..	....
#2	49–1	Capacitor, silver mica, 285 μμf, 500 v, ±2% tolerance. Size 11/64" x 11/16" x 7/16", rectangular. (Same as 49-2.) Type MOS Mica.	Right, B band trimmer shunt.	33	P303-113-17

30. TABLE OF REPLACEABLE PARTS.— a. Radio Receiver BC-973-B.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
..	49–2		Same as 49-1.	Left, B band trimmer shunt.	..	....
#1	50–1		Capacitor, silver mica, 900 μμf, 500 v, ±2% tolerance. Size—¼" x ¾" x ¾", rectangular. Type MWS Mica.	A band, oscillator pad.	33	P303-113-3
#1	51–1		Capacitor, silver mica, 10 μμf, 500 v, ±5% tolerance. Size—11/64" x 11/16" x 7/16", rectangular. Type MOS Mica.	A band, oscillator trimmer shunt.	33	P303-113-4
#3	52–1		Capacitor, silver mica, 50 μμf, 500 v, ±3% tolerance. Size—11/64" x 11/16" x 7/16", rectangular. (Same as 52-2, 52-3.) Type MOS Mica.	Oscillator coupling.	33	P303-113-6
..	52–2		Same as 52-1.	Oscillator coupling.	..	....
..	52–3		Same as 52-1.	Shunt, B band sense coil.	..	....
#1	53–1		Capacitor, silver mica, 2450 μμf, 500 v, ±3% tolerance. Size—¼" x ¾" x ¾", square. Type MWS Mica.	Oscillator pad, B band.	33	P303-113-9
#1	54–1		Capacitor, silver mica, 140 μμf, 500 v, ±3% tolerance. Size—11/64" x 11/16" x 7/16", rectangular. Type MOS Mica.	Oscillator trimmer shunt, B band.	33	P303-113-10

#3	55-1				
..	55-2	tolerance. Size—¾" x ¾" x ¼". (Same as 55-2, 55-3.) Type MW Mica.	pass.	..	....
..	55-3	Same as 55-1.	VT-107-A, plate by-pass.	..	....
#4	56-1	Same as 55-1.	R-F filter.	..	....
..	56-2	Capacitor, plain mica, 100 $\mu\mu$f, 500 v, ±20% tolerance. Size—11/64" x 11/16" x 7/16", rectangular. (Same as 56-2, 56-3, 56-4.) Type MO Mica.	R-F filter.	33	P303-113-19
..	56-3	Same as 56-1.	R-F filter.	..	....
..	56-4	Same as 56-1.	R-F filter.	..	....
#2	57-1	Same as 56-1.	R-F filter.	..	....
..	57-2	Capacitor, mica, .01 μf, 300 w-v, ±20% tolerance. Size—¾" x ¾" x ¼". (Same as 57-2.) Type 1468.	B+ by-pass, 3d i-f, right.	4	P303-113-18
#1	58-1	Same as 57-1.	B+ by-pass, 3d i-f, left.	..	....
		Capacitor, variable air trimmer, 22$\mu\mu$f effective capacity, 7 plates. Overall length is 13/16", and ¼" diam. shaft. Spring wiper location—right. Type ASP.	Oscillator trimmer, A band.	8	P304-105-2

30. TABLE OF REPLACEABLE PARTS.— a. Radio Receiver BC-973-B.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
#1	59–1		Capacitor, variable air trimmer, 22 $\mu\mu$f effective capacity, 7 plates. Overall length is $^{13}/_{16}$", and $^{1}/_{4}$" diam. shaft. Spring wiper location—left. Type ASP.	Oscillator trimmer, B band.	8	P304-105-3
#4	60–1		Capacitor, variable air trimmer, 35 $\mu\mu$f effective capacity, 18 plates. Overall length is 1$^{1}/_{2}$", and $^{1}/_{4}$" diam. shaft. Spring wiper location—center. (Same as 60-2, 60-3, 60-4.) Type ASP.	Loop trimmer, right, A band.	8	P304-105-1
..	60–2		Same as 60-1.	Loop trimmer, right, B band.	..	....
..	60–3		Same as 60-1.	Loop trimmer, left, A band.	..	....
..	60–4		Same as 60-1.	Loop trimmer, left, B band.	..	....
#1	61–1A 61–1B 61–1C 61–1D		Capacitor, variable 4-section gang: Section 1.....31 plate, Section 2.....19 plate, Section 3..... 7 plate, Section 4.....31 plate. Size—$3^{3}/_{16}$" x $4^{31}/_{32}$" x $1^{27}/_{32}$". Gear Ratio 12:1. Aluminum capacitor plates. Special.	Main tuning capacitor.	7	P300-104

#1	70–1		At 1 kc the inductance start to end is 46 microhenrys, and start to tap is 53.5 microhenrys, ±2% tolerance, ¾" x ⅜" outside diam. iron core. Primary, 2 pies of 6-42 single celanese wire. Secondary, 3 turns of 10-44 single celanese wire. Special.			
#1	71–1		Coil, sense; covers 2 megacycle-3 megacycle. At 1 kc the inductance start to end is 62 microhenrys, and start to tap is 53.5 microhenrys, ±2% tolerance, ¾" x ⅜" outside diam. iron core. Primary, 2 pies of 6-42 single celanese wire. Secondary, 3 turns of 10-44 single celanese wire. Special.	B band, sense coil.	6	P500-124-2
#1	72–1		Coil, oscillator; covers 1 megacycle-2 megacycle. At 1 kc the inductance start to end is 44.4 microhenrys, and start to tap 1.5 microhenrys, ±.25% tolerance, 1½" x ½" outside diam. bakelite form; #36 DCC wire, air core. Special.	A band, oscillator coil.	6	P500-126
#1	73–1		Coil, oscillator; covers 2 megacycle-3 megacycle, ±.25% tolerance, 1½" x ½" outside diam. bakelite form, air core, 36 turns of #28 DCC between start and finish, tapped 6 turns from start. Special.	B band, oscillator coil.	6	P500-127

30. TABLE OF REPLACEABLE PARTS.— a. Radio Receiver BC-973-B.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
#2	74–1		Coil Assembly, loop loading. At 1 kc the inductance is 33.5 microhenrys, ±5% tolerance, ¾" x ⅜" outside diam. iron core, 10-44 single celanese wire. Aluminum shield can is 1⅜" x 1⅜" x 3⅛", and it has an iron core tuning slug in it. (Same as 74-2.) Special.	Right channel, loop loading coil.	1	G-1637
..	74–2		Same as 74-1.	Left channel, loop loading coil.	..	....
#2	75–1		Transformer Assembly, 1st i-f, peaked frequency 458 kc, interstage; both the primary and secondary have a 200 μμf capacitor and an air dielectric trimmer across them; the secondary has a 500,000-ohm resistor across it; coils made of 6-42 single celanese wire, powdered iron core. The aluminum shield can is 1⅞" x 1⅞" x 4". (Same as 75-2.) Special.	Right channel, 1st i-f.	1	G-1658
..	75–2		Same as 75-1.	Left channel, 1st i-f.	..	....

#2	76–1		Transformer, 2d i-f, peaked frequency 458 kc, interstage; the primary is made of #36 wire and is connected to the secondary by a 200 $\mu\mu$f capacitor; the secondary is made of 6-42 single celanese wire with a 200 $\mu\mu$f capacitor and an air trimmer across it; the coils have a powdered iron core and are wound in opposite directions. The aluminum shield can is $1\frac{7}{16}$" x $1\frac{7}{8}$" x 4". (Same as 76-2.) Special.	Right channel, 2d i-f.	6	P815-113
..	76–2		Same as 76-1.	Left channel, 2d i-f.	..	....
#2	77–1		Transformer Assembly, 3d i-f, peaked frequency 458 kc, interstage; the primary is shunted by an 80 $\mu\mu$f capacitor and an air dielectric trimmer; the secondary is in series with a 300-ohm resistor and is connected to the tertiary by a 2,000 $\mu\mu$f capacitor; the tertiary circuit has 3—1 megohm resistors, 1—.5 megohm resistor, a 100 and 10,000 $\mu\mu$f capacitor; coils are made of 3-41 single celanese wire, air core. The aluminum shield can is $1\frac{7}{16}$" x $1\frac{7}{8}$" x 4", and it has plastic tubing and a grid clip attached to it. (Same as 77-2.) Special.	Right channel, 3d i-f.	1	G-1588
..	77–2		Same as 77-1.	Left channel, 3d i-f.	..	....

30. TABLE OF REPLACEABLE PARTS.— a. Radio Receiver BC-973-B.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
#1	78–1		Coil Assembly, beat oscillator. The assembly consists of a coil which at 1 kc has an inductance from A to C of 1.5 millihenrys and from A to B of .24 millihenrys, made of 3-41 single celanese wire; a 50,000-ohm resistor, a 250 and 50 $\mu\mu$f capacitor and a trimmer capacitor with a maximum and minimum value of 26 and 5 $\mu\mu$f respectively. The aluminum shield can is 1½″ x 1⅞″ x 3½″. Special.	Beat oscillator assembly.	6	P500-122
#4	79–1		Jack, single contact open, with brass bushing and insulating washers, fits in ⅜″ mounting hole; 1¼″ long. It has a locating lug. (Same as 79-2, 79-3, 79-4.) Signal Corps Type JK34A.	Output.	10	P721-114-1
..	79–2		Same as 79-1.	Output.	..	....
..	79–3		Same as 79-1.	Output.	..	....
..	79–4		Same as 79-1.	Microphone supply.	..	....
#1	80–1		Switch, push button, S.P.S.T., 3-amp—125-v. 15/32″ diameter—32 threads. Type GA.	Sense switch.	11	P170-125

#3			diameter—32 threads. (Same as 81-2, 81-3.) Type #8280.			
..	81–2		Same as 81-1.	C-W oscillator switch.	..	....
..	81–3		Same as 81-1.	AVC Switch.	..	....
#2	82–1		Switch, toggle, D.P.S.T., 6-amp—125-v. 15/32" diameter—32 threads. (Same as 82-2.) Type #8370.	Meter damping.	12	P710-127
..	82–2		Same as 82-1.	ON-OFF switch.	..	....
1	83–1A 83–1B 83–1C 83-1D		Switch, gang; 4 sections, 2 operating positions. Overall dimensions—4 3/8" x 1 3/4" x 1 9/16". Brass bushing 3/8" x 32 thread. 1/4" diameter shaft. Special.	Band change switch.	25	P710-128
#1	84–1		Switch, balance; spring contact, phosphor bronze spring. 2—3/32" silver points. Overall size—1 1/2" x 11/16" x 1 13/32". Special.	Balance switch.	27	P716-104
#3	90–1		Relay, d-c, D.P.D.T. type, rating—11 ohms at 3 volts, (relay must operate at 2 1/2 volts). Size—7/8" x 1 1/8" x 1 7/16". (Same as 90-2, 90-3.) Type #1604.	Right, balance relay.	13	P830-109
..	90–2		Same as 90-1.	Left, balance relay.	..	....
..	90–3		Same as 90-1.	Sense relay.	..	....

30. TABLE OF REPLACEABLE PARTS.— a. Radio Receiver BC-973-B.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
#1	91–1		Relay, d-c, D.P.D.T. type, rating—40 ohms at 6 volts, (relay must operate on 5 volts). Size—7/8" x 1 1/8" x 1 7/16". Type #1604.	Beat oscillator relay.	13	P830-110
#1	92–1		Transformer, audio output; power requirements—½ watt. Primary, 8,000 ohms, consists of 2,400 turns of #39 plain enamel wire. The secondary of 4,000 ohms has a 250-ohm tap. The coil from start to tap consists of 420 turns of #36 plain enamel wire, the balance of secondary is made of 1,200 turns of #39 plain enamel wire. It has an iron core and fits in a zinc case (with black oxidized finish) 1 13/32" x 1 13/32" x 1 7/8". Special.	Audio output.	20	P805-104
2	93–1		Tube VT-161, RMA type 12SA7. (Same as 93-2.)	Left channel, mixer.	34 35 36	
..	93–2		Same as 93-1.	Right channel, mixer.	..	
4	94–1		Tube VT-209, RMA type 12SG7. (Same as 94-2, 94-3, 94-4.)	Left channel, 1st i-f.	34 35 36	

..	94–2		Same as 94-1.	Right channel, 1st i-f.	..	
..	94–3		Same as 94-1.	Left channel, 2d i-f.	..	
..	94–4		Same as 94-1.	Right channel, 2d i-f.	..	
2	95–1		Tube VT-153, RMA type 12C8 Special. (Same as 95-2.)	Left channel, 3d i-f (2d detector).	34 35 36	
..	95–2		Same as 95-1.	Right channel, 3d i-f (2d detector).	..	
1	96–1		Tube VT-107-A, RMA type 6V6GT.	Audio output, right of center.	34 35 36	
2	97–1		Tube VT-162, RMA type 12SJ7. (Same as 97-2.)	Main oscillator, center.	34 35 36	
..	97–2		Same as 97-1.	Beat frequency oscillator, rear left center.	..	
*#3	98–1		Pilot Light Bulb, 12-volt, with min. screw base. Overall length 1 3/16", diam. of bulb—13/32". (Same as 98-2, 98-3.) Type GE 1487.	Light bulb, front panel, left.	11	P460-105-1
..	98–2		Same as 98-1.	Light bulb, front panel, right.	..	....
..	98–3		Same as 98-1.	Light bulb, front panel, center.	..	....

30. TABLE OF REPLACEABLE PARTS.— a. Radio Receiver BC-973-B.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
1	100		Radio Receiver BC-973-B is an 11-tube twin-channel superheterodyne, having a converter mixer stage and 3 i-f stages per channel, an oscillator stage, a beat frequency oscillator, an audio stage, and a dual-pointer meter coupled to the output for visual signal indication. Special.	To receive r-f signals from 1,000 kc to 3,000 kc and convert them to audible signals.	1	P953-180
1	101–1		Knob, brake; engraved with ¾″ white arrow on face as well as word BRAKE. Overall dimensions—1⅛″ diam. x ⅝″ long. Material is brass and the edge is knurled. Fits on ¼″ shaft and is held fast by 2 setscrews. It has a semi-gloss olive drab finish. Special.	Brake knob for holding azimuth scale in any fixed position.	1	P950-127-1
2	102–1		Handle, guard for front panel controls, ¼″ steel rod. Overall dimensions—5 21/32″ x 1⅝″ with a ½″ deep #8-32 tapped hole at each end for mounting. Semi-gloss olive drab finish. (Same as 102-2.) Special.	Guard handle, front panel, left.	1	P965-106
..	102–2		Same as 102-1.	Guard handle, front panel, right.	..	....

#1	103–1		Meter, direction indicator, with pointers and zero center line colored orange, all other lines and figures are green on a black background. Overall dimensions—3¼″ diam. x 3$^{9}/_{32}$″ long. Semi-gloss olive drab finish on the front. WESTON Model #635 Type 52 *or* SIMPSON Special Type Cross Pointer.	Direction indicator.	14 53	P956-104
3	104–1		Spacer, resistor block mounting, ¼″ diam. x ⅞″ long. Made of Le Natural Phenolic and wax impregnated. 1/16″ hole through the center with each end tapped, #6-32 full thread. (Same as 104-2, 104-3.) Special.	Stand-off insulator, bottom, left side rear.	38	P602-183
..	104–2		Same as 104-1.	Stand-off insulator, bottom, right side rear.	..	....
..	104–3		Same as 104-1.	Stand-off insulator, top, microphone supply resistor mount.	..	....
1	105–1		Knob, large dial, is made of brass and has a knurled edge. Overall dimensions—1⅛″ diam. x ⅝″ long. .251″ hole is drilled clear through. It is held fast by 2 setscrews. It has a semi-gloss olive drab finish. Special.	Large dial knob.	1	P950-128-1
1	106–1		Knob, small dial, is made of brass and has a knurled edge. Size—⅝″ diam. x ½″ long. It has a ⅛″ hole drilled $^{15}/_{32}$″ deep. It is held fast by 2 setscrews. Semi-gloss olive drab finish. Special.	Small dial knob.	1	P950-129

30. TABLE OF REPLACEABLE PARTS.— a. Radio Receiver BC-973-B.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
1	107–1		Escutcheon, meter damp-off switch. METER DAMP-OFF is engraved and painted white on a semi-gloss olive drab background. Size —1″ diam. x 1/16″ thick, cold rolled steel, with a 31/64″ diam. hole through the center. Special.	Meter damp-off switch escutcheon.	23	P953-163-6
1	108–1		Escutcheon, sense switch. SENSE is engraved and painted white on a semi-gloss olive drab background. Size—1″ diam. x 1/16″ thick, cold rolled steel, with a 31/64″ hole through the center. Special.	Sense switch escutcheon.	23	P953-163-7
1	109–1		Escutcheon, c-w oscillator-off switch. C.W. OSC.-OFF is engraved and painted white on a semi-gloss olive drab background. Size—1″ diam. x 1/16″ thick, cold rolled steel, with a 31/64″ hole through the center. Special.	C-W oscillator-off switch escutcheon.	23	P953-163-2
1	110–1		Escutcheon, lights-off switch. LIGHTS-OFF is engraved and painted white on a semi-gloss olive drab background. Size—1″ diam. x 1/16″ thick, cold rolled steel, with a 31/64″ hole through the center. Special.	Lights-off switch escutcheon.	23	P953-163-1

1	111–1		Escutcheon, MVC-AVC switch. MVC-AVC is engraved and painted white on a semi-gloss olive drab background. Size—1″ diam. x 1/16″ thick, cold rolled steel, with a 31/64″ hole through the center. Special.	MVC-AVC switch escutcheon.	23	P953-163-3
1	112–1		Escutcheon, on-off switch. ON-OFF is engraved and painted white on a semi-gloss olive drab background. Size—1″ diam. x 1/16″ thick, cold rolled steel, with a 31/64″ hole through the center. Special.	On-off switch escutcheon.	23	P953-163-4
1	113–1		Escutcheon, direction indicator. DIRECT SENSE RECIP'L and an arrow are engraved and painted white on a semi-gloss olive drab background. It is made of #16 Ga. cold rolled steel. It is 3/8″ wide and has 2—11/64″ diam. holes, one on each end. Special.	Escutcheon for direction indicator. tion indicator.	23	P953-167
1	114–1		Knob, press to balance control. PRESS TO BALANCE is engraved and painted white on face. Overall dimensions—1 3/8″ diam. x 5/8″ long. Material is brass and the edge is knurled. It has a 1/2″ deep hole which fits on a 1/8″ shaft and is held fast by 2 setscrews. Semi-gloss olive drab finish. Special.	Press to balance control knob.	1	P950-126
1	115–1		Escutcheon, volume control. VOLUME and an arrow are engraved and painted white on a semi-gloss olive drab background. Size—2 1/4″ diam. x 1/16″ thick, cold rolled steel, with a 3/8″ hole through the center. Special.	Volume control escutcheon.	23	P953-165

30. TABLE OF REPLACEABLE PARTS.— a. Radio Receiver BC-973-B.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
1	116–1		Escutcheon, frequency band. FREQ BAND and the three bands A, B, and C are engraved and painted white on a semi-gloss olive drab background. Size—2″ diam. x 1/16″ thick, cold rolled steel, with a 3/8″ hole through the center. Special.	Frequency band switch escutcheon.	23	P953-164-2
1	117–1		Escutcheon, sensitivity control. SENSITIVITY and numbers 1-10 are engraved and painted white on an olive drab background. Size—2″ diam. x 1/16″ thick, cold rolled steel, with a 3/8″ hole through the center. Special.	Sensitivity control escutcheon.	23	P953-164-1
2	118–1		Knob, sensitivity control; engraved with a 3/4″ white arrow. Overall dimensions—1 1/8″ diam. x 5/8″ long. Material is brass and the edge is knurled. Fits on 1/4″ shaft and is held fast by 2 setscrews. Semi-gloss olive drab finish. (Same as 118-2.) Special.	Sensitivity control knob.	1	P950-127-2
..	118–2		Same as 118-1.	Frequency band knob.	..	....

2	119–1		Handle, carrying; is made of steel. The mounting plate of 1/16" steel is 3 5/8" long x 2 7/8" wide. The handle proper which is 5/16" in diameter is 3 1/2" x 1 7/8" (overall). Semi-gloss olive drab finish. (Same as 119-2.) Type #61233.	Carrying handle, left side.	31	P965-105
..	119–2		Same as 119-1.	Carrying handle, right side.	..	....
1	120–1		Tube, pilot light extension; is made of 3/8" seamless brass tubing, .065" wall. Both ends are threaded—3/8"-32 thread. Overall dimensions—1 3/16" x 1 5/16". Semi-gloss olive drab finish. Special.	Pilot light extension tube, top center of front panel.	1	P962-122
1	121–1		Pilot Light Socket Assembly is made of brass. It consists of a threaded screw 1/2"-32 thread on one side and 3/8"-32 thread on the other. On the 3/8" side there is a hex nut, fibre end, and a soldering contact. On the 1/2" side there is a 1/8" spacer and a circular nut. On this latter side a 15/16" diam. x 1" long reflecting cap, painted white on the inside and semi-gloss olive drab on the outside, is snapped on. A pilot light cover spring holds this cap in position. This spring has an inside diameter of 15/16" and is made of #16 Ga. B. & S. phosphor bronze wire—.050". Special.	Pilot light socket assembly, front panel, top center.	1	G-1608

30. TABLE OF REPLACEABLE PARTS.— a. Radio Receiver BC-973-B.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
2	122–1		Pilot Light Socket Assembly is made of brass. It consists of a ½″-32 thread screw, hex nut, 2 silver plated contacts, ⅛″ spacer and a circular nut upon which a reflecting cap snaps on. This cap is 15/16″ diam. x 1″ long and is painted white on the inside and semi-gloss olive drab on the outside. A pilot light cover spring holds the cap in position. This spring has an inside diameter of 15/16″ and is made of #16 Ga. B.& S. phosphor bronze wire —.050″. (Same as 122-2.) Special.	Pilot light socket assembly, front panel, top left.	1	G-1609
..	122–2		Same as 122-1.	Pilot light socket assembly, front panel, top right.	..	....
1	123–1		Bottom Cover for receiver is made of #16 Ga. cold rolled steel. Size—10 15/16″ x 12 13/16″. There is a 1 1/32″ hole in each corner for a Lord shock mount. It is electro-galvanized and then painted with semi-gloss olive drab enamel. Special.	Bottom cover for receiver.	1	P204-162

#8	124–1		Shock Mount has steel bushing center. It is 1¼″ square x 13/32″ thick. The mounting plate is .032″ cold rolled steel and painted with semi-gloss olive drab enamel. There is .141″ hole in each corner. (Same as 124-2, 124-3, 124-4, 124-5, 124-6, 124-7, 124-8.) Type 100P-187-6.	Shock mount, bottom cover, front left.	18	P 616-116
..	124–2		Same as 124-1.	Shock mount, bottom cover, front right.	..	....
..	124–3		Same as 124-1.	Shock mount, bottom cover, rear left.	..	....
..	124–4		Same as 124-1.	Shock mount, bottom cover, rear right.	..	....
..	124–5		Same as 124-1.	Bottom side of chassis, left center.	..	....
..	124–6		Same as 124-1.	Bottom side of chassis, left center.	..	....
..	124–7		Same as 124-1.	Bottom side of chassis, right center.	..	....
..	124–8		Same as 124-1.	Bottom side of chassis, right center.	..	....
#1	125–1		Socket SO-69 is made of brass with a dull white nickel finish. Overall size—2 3/16″ diam. x 13/16″ long. Signal Corps Type #SO-69.	Power Socket SO-69 connects receiver to plug of Cord CD-673-B.	16	P720-119

30. TABLE OF REPLACEABLE PARTS.— a. Radio Receiver BC-973-B.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
1	126–1		Brake Shoe Assembly consists of Guide Arm Assembly G-1521, steel brake shoe bracket, and a felt pad. Its overall dimensions are $2\frac{11}{16}$" x $3\frac{1}{8}$" x $\frac{5}{8}$". Special.	Brake shoe assembly for holding azimuth scale in any fixed position.	1	G-1505
1	127–1		Cam, brake shoe lock; is made of cold drawn steel, chrome plated (.0003). Overall size—$\frac{9}{16}$" x $\frac{7}{16}$" x $\frac{11}{16}$". The shaft is $\frac{1}{4}$" diam. x $\frac{9}{16}$" long. Special.	Cam for brake shoe lock.	1	P251-160
1	128–1		Brake Guide Arm Assembly consists of a brake shoe guide arm made of $\frac{1}{16}$" cold rolled steel and a plate made of #22 Ga. cold rolled steel. Its overall dimensions are2 $\frac{11}{16}$" x $\frac{7}{8}$" x $\frac{3}{8}$". Special.	Brake guide arm assembly is used to control the brake shoe.	1	G-1521
1	129–1		Bracket, meter plug mounting; is made of #13 Ga. cold rolled steel (.090"), zinc plating .0005". Overall size—$1\frac{5}{8}$" x $1\frac{13}{64}$" x $2\frac{21}{32}$". Special.	Meter plug mounting bracket.	1	P202-238
1	130–1		Escutcheon and Trimmer Cover. A PAR. is engraved and painted white on the cover. The escutcheon is made of $\frac{1}{8}$" and the cover of .020" cold rolled steel and both have a semi-gloss olive drab finish. The escutcheon has a $\frac{13}{32}$" hole through the center. The overall size is $\frac{31}{32}$" diam. x $\frac{1}{4}$" long. Special.	Escutcheon and trimmer cover for band A parallel trimmer capacitor. Front panel, left center.	23	P953-166-7

1	131–1		Escutcheon and Trimmer Cover. B PAR. is engraved and painted white on the cover. The escutcheon is made of 1/8" and the cover of .020" cold rolled steel and both have a semi-gloss olive drab finish. The escutcheon has a 13/32" hole through the center. The overall size is 31/32" diam. x 1/4" long. Special.	Escutcheon and trimmer cover for band B parallel trimmer capacitor. Front panel, right center.	23	P953-166-8
1	132–1		Escutcheon and Trimmer Cover. A LOOP 1 is engraved and painted white on the cover. The escutcheon is made of 1/8" and the cover of .020" cold rolled steel and both have a semi-gloss olive drab finish. The escutcheon has a 13/32" hole through the center. The overall size is 31/32" diam. x 1/4" long. Special.	Escutcheon and trimmer cover for band A Loop 1 trimmer capacitor. Front panel, lower left center.	23	P953-166-1
1	133–1		Escutcheon and Trimmer Cover. B LOOP 1 is engraved and painted white on the cover. The escutcheon is made of 1/8" and the cover of .020" cold rolled steel and both have a semi-gloss olive drab finish. The escutcheon has a 13/32" hole through the center. The overall size is 31/32" diam. x 1/4" long. Special.	Escutcheon and trimmer cover for band B Loop 1 trimmer capacitor. Front panel, bottom left center.	23	P953-166-2
1	134–1		Escutcheon and Trimmer Cover. A LOOP 2 is engraved and painted white on the cover. The escutcheon is made of 1/8" and the cover of .020" cold rolled steel and both have a semi-gloss olive drab finish. The escutcheon has a 13/32" hole through the center. The overall size is 31/32" diam. x 1/4" long. Special.	Escutcheon and trimmer cover for band A Loop 2 trimmer capacitor. Front panel, lower right center.	23	P953-166-4

30. TABLE OF REPLACEABLE PARTS.—*a.* Radio Receiver BC-973-B.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
1	135–1		Escutcheon and Trimmer Cover. B LOOP 2 is engraved and painted white on the cover. The escutcheon is made of 1/8" and the cover of .020" cold rolled steel and both have a semi-gloss olive drab finish. The escutcheon has a 13/32" hole through the center. The overall size is 3 1/32" diam. x 1/4" long. Special.	Escutcheon and trimmer cover for band B Loop 2 trimmer capacitor. Front panel, bottom right center.	23	P953-166-5
#4	136–1		Thumbscrew, top cover; it is made of brass, dull black nickel finish (.0003"). It has a knurled head 1/2" diam. x 1/4" thick and #10-32 thread. Overall size is 1/2" diam. x 13/16" long. (Same as 136-2, 136-3, 136-4.) Special.	Captive thumbscrew attaches top cover to chassis, left front.	1	P1051
..	136–2		Same as 136-1.	Attaches top cover to chassis, right front.	..	....
..	136–3		Same as 136-1.	Attaches top cover to chassis, left rear.	..	....
..	136–4		Same as 136-1.	Attaches top cover to chassis, right rear.	..	....

1	137–1		Plate, azimuth zero marker. It is made of #13 Ga. cold rolled steel and electro-galvanized (zinc .0005″). Zero and lines are engraved and painted white on a semi-gloss olive drab background. Size is 1¼″ x ¾″ x 3/32″ thick. Special.	Zero index marker plate.	1	P204-182
3	138–1		Spacer, relay mounting. It is made of cold drawn steel and electro-galvanized (zinc .0003″). It is tapped on both ends with a #6-32 thread. Overall size is ¼″ diam. x ¾″ long. (Same as 138-2, 138-3.) Special.	Relay spacer used on Relay 90-1.	1	P251-145
..	138–2		Same as 138-1.	Relay spacer used on Relay 90-2.	..	....
..	138–3		Same as 138-1.	Relay spacer used on Relay 90-3.	..	....
#1	139–1		Loop Bearing Assembly consists of 2 silver contact brushes and insulators, an aluminum casting, and copper wire braid. Its overall dimensions are 2¾″ x 2¼″ x 4 7/16″. It also includes 2 oilite bearings. Special.	Loop bearing assembly supports the loop commutator assembly.	1	G-1501
#1	140–1		Balance and Volume Control Assembly consists of a 20,000-ohm audio volume control, a 60,000-ohm balance control, a momentary single circuit spring switch, a 25 μf—25-volt electrolytic capacitor, a shaft and center clutch, a front and rear clutch, spring, guide washer, insulating washer and a two piece mounting bracket. Special.	Sence balance and audio volume control.	1	G-1467

30. TABLE OF REPLACEABLE PARTS.— a. Radio Receiver BC-973-B.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
1	141–1		Bracket, front clutch. It is made of #16 Ga. cold rolled steel and electro-galvanized (zinc .0003″). Overall size is 1″ x 2 13/16″ x 1 3/4″. Special.	Front clutch bracket for balance and volume control assembly.	1	P202-225
1	142–1		Bracket, rear clutch. It is made of #16 Ga. cold rolled steel and electro-galvanized (zinc .0005″). It is L shaped and its overall size is 1″ x 2 11/16″ x 7/16″. Special.	Rear clutch bracket for balance and volume control assembly.	1	P202-226
1	143–1		Washer, spring guide. It is made of #26 Ga. cold rolled steel and electro-galvanized (zinc .0005″). It has a 1/4″ hole through the center and its overall dimensions are 1 1/8″ diameter x 1/8″ thick. Special.	Spring guide washer for balance and volume control assembly.	1	P914-113
1	144–1		Shaft and Center Clutch Assembly for volume control consists of a serrated tooth clutch faced on both sides fitted to a steel rod, 1/8″ diam. x 2 11/16″ long. Special.	Connects front and rear controls and operates spring switch.	1	G-1558
2	145–1		Clutch Gear is made of hard brass. There are 60 serrations .031″ deep x 6° apart around the entire periphery. It has a .1065″ hole through the center. The overall size is 5/8″ diam. x 21/64″ thick. (Same as 145-2.) Special.	Front clutch gear on the balance and volume control assembly.	37	P966-104

..	145–2		Same as 145-1.	Rear clutch gear on the balance and volume control assembly.	..	....
1	146–1		Spring, Clutch. It is made of #15 Ga. B.&S. phosphor bronze wire (.057″) spring temper. It consists of 6 turns, with the maximum diameter 1 3/32″ and the minimum diameter 33/64″ and its length is 1 9/16″. Special.	Clutch spring for balance and volume control assembly.	39	P280-145
1	147–1		Pointer is made of brass and chromium plated .0005″ and polished. Overall size is 1 1/4″ x 1/2″ x 1/4″. Special.	Brass pointer for volume control.	1	P957-103
#1	148–1		Band Switch Assembly consists of a 4-gang ceramic band switch, 2 shield plates, shaft mounting bracket, bevel gear, drive shaft, feed through bushing, 2 3/8″ hex nuts and lockwashers, spacer, terminal board, 2—285 μf, 2—80 μf, and 1—50 μμf silver mica condensers, and 2 ceramic feed through insulators. Special.	To switch r-f loop signal to proper coil circuits in receiver.	1	G-1562
2	149–1		Bracket, band switch mounting. It is made of #18 Ga. cold rolled steel and electro-galvanized (zinc .0005″). It is L shaped and its overall dimensions are 2 1/2″ x 2 3/4″ x 7/16″. (Same as 149-2.) Special.	Front bracket, band switch assembly mounting.	1	P202-233
..	149–2		Same as 149-1.	Rear bracket, band switch assembly mounting.	..	....

30. TABLE OF REPLACEABLE PARTS.— a. Radio Receiver BC-973-B.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
1	150–1		Terminal Board is made of Le Natural Phenolic and wax impregnated. It has 6 terminal lugs made of brass and tinned. Its overall dimensions are 5/16" x 2 1/16" x 29/64". Special.	Terminal board for band switch assembly.	29	P610-156
1	151–1		Bevel Gear, large; is made of brass. It has 32 teeth and fits on a 1/4" shaft and is held fast by 2 setscrews. Its hub diameter is 9/16" and its overall dimensions are 1 1/16" diam. x 7/16" thick. Type G481 (revised).	Large bevel gear for the band switch assembly. It is used with Bevel Gear 152-1.	30	P966-106-1
1	152–1		Bevel Gear, small; is made of brass. It has 16 teeth and fits on a 1/4" shaft and is held fast by 2 setscrews. Its hub diameter is 3/8" and its overall dimensions are 9/16" diam. x 3/8" thick. Type G481 (revised).	Small bevel gear for the band switch assembly. It is used with Bevel Gear 151-1.	30	P966-106-2
1	153–1		Shaft, band switch; is made of 1/4" diameter cold rolled steel and electro-galvanized (zinc .0002"). It is 4 3/8" long with a 11/64" diameter hole through the center. Special.	Shaft for band switch assembly.	1	P263-109
1	154–1		Bracket, band switch; is made of #16 Ga. cold rolled steel and electro-galvanized (zinc .0005"). The overall dimensions are 1 3/8" x 1 7/8" x 1 3/4". Special.	Gear mounting bracket for the band switch assembly.	1	P202-222

1	155–1		Bushing, band switch shaft retainer. It is made of cold rolled steel and electro-galvanized (zinc .0002″). It has a .253″ hole through the center and it is tapped in 2 places, #6-32 thread. The overall dimensions are ½″ diam. x ¼″ thick. Special.	Band switch shaft retainer bushing.	1	P250-127
2	156–1		Bushing, band switch; is made of hex brass rod and cadmium plated .0002″. It has a .251″ diam. hole through the center, and the overall dimensions are ½″ hex x 7/16″ thick and 9/32″ of it is threaded with a ⅜″-32 thread. (Same as 156-2.) Special.	Band switch shaft bushing, front.	1	P250-122
..	156–2		Same as 156-1.	Band switch shaft bushing, rear.	..	....
#1	157–1		Oscillator Assembly consists of 2 air trimmer capacitors, main mounting bracket, A band coil, B band coil, 2 terminal boards; a 2450, 900, 140, and 10 μμf silver mica capacitors, and 4 ceramic insulators. Special.	R-F oscillator stage.	1	G-1469
1	158–1		Shield Cover, oscillator; is made of #20 Ga. B.&S. (.031) 52 S Aluminum and lacquered. There are 29/64″ holes on top. Overall dimensions are 2½″ x 2⅛″ x 3 19/32″. Special.	Shield cover for the oscillator.	1	P203-133
1	159–1		Shield, oscillator; is made of #16 Ga. (.051) and #20 Ga. (.031) 52 S Aluminum and lacquered. The overall dimensions are 2.031″ x 3½″ x 2 7/16″. Special.	Oscillator mounting shield.	1	P203-132

30. TABLE OF REPLACEABLE PARTS.— a. Radio Receiver BC-973-B.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
#4	160–1		Terminal Board is made of Le Natural Phenolic and wax impregnated. It has 2—¾″ terminal lugs made of brass and tinned. Its overall dimensions are 5/16″ x 1 5/8″ x 11/16″. (Same as 160-2, 160-3, 160-4.) Special.	Terminal board for oscillator assembly, left.	29	P610-162
..	160–2		Same as 160-1.	Terminal board for oscillator assembly, right.	..	....
..	160–3		Same as 160-1.	Terminal board for mounting isolating Resistor 12-1.	..	....
..	160–4		Same as 160-1.	Terminal board for mounting isolating Resistor 25-1.	..	....
#1	161–1		Screw, oscillator cover; is made of brass. It is a standard 6-32 Fil. head machine screw with ¼″ undercut and 3/16″ threaded. The overall dimensions are 7/32″ diam. x 37/64″ long. Special.	Captive screw for oscillator cover.	1	P1052

1	162–1		Terminal Board is made of flexible bakelite and wax impregnated. It has one terminal lug which is made of brass and hot solder dipped. Its overall dimensions are 1 1/16" x 11/16" x 3/8". Special.	Mounts Resistor 1-1.	28	P610-166-1
1	163–1		Chassis Shield Assembly is made of #18 Ga. cold rolled steel and electro-galvanized (zinc .0005"). It has 2 spade bolts riveted on. Its overall dimensions are 8 3/4" x 3 1/4" x 13/16". Special.	Chassis shield assembly shields the beat frequency oscillator circuit from r-f oscillator circuit and provides mounting space for circuit components.	1	G-1529
#20	164–1		Terminal Board is made of Le Natural Phenolic and wax impregnated. It has 4—3/4" terminal lugs which are made of brass and tinned. Its overall dimensions are 1 1/4" x 7/8" x 11/16". (Same as 164-2, 164-3, 164-4, 164-5, 164-6, 164-7, 164-8, 164-9, 164-10, 164-11, 164-12, 164-13, 164-14, 164-15, 164-16, 164-17, 164-18, 164-19, 164-20.) Special.	Terminal board for shield assembly, left rear.	29	P610-157
..	164–2		Same as 164-1.	Terminal board for shield assembly, center rear.	..	....
..	164-3		Same as 164-1.	Terminal board for shield assembly, right rear.	..	....

30. TABLE OF REPLACEABLE PARTS.— a. Radio Receiver BC-973-B.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
..	164–4		Same as 164-1.	Terminal board for shield assembly, right front.	..	....
..	164–5		Same as 164-1.	Terminal board, bottom of chassis, right side.	..	....
..	164–6		Same as 164-1.	Terminal board, bottom of chassis, right side.	..	....
..	164–7		Same as 164-1.	Terminal board, bottom of chassis, right side.	..	....
..	164–8		Same as 164-1.	Terminal board, bottom of chassis, right side.	..	....
..	164–9		Same as 164-1.	Terminal board, bottom of chassis, right side.	..	....
..	164–10		Same as 164-1.	Terminal board, bottom of chassis, right side.	..	....

..	164–11	Same as 164-1.	Terminal board, bottom of chassis, left side.	....
..	164–12	Same as 164-1.	Terminal board, bottom of chassis, left side.	....
..	164–13	Same as 164-1.	Terminal board, bottom of chassis, left side.	....
..	164–14	Same as 164-1.	Terminal board, bottom of chassis, left side.	....
..	164–15	Same as 164-1.	Terminal board, bottom of chassis, left side.	....
..	164–16	Same as 164-1.	Terminal board, bottom of chassis, left side.	....
..	164–17	Same as 164-1.	Terminal board, bottom of chassis, rear left.	....
..	164–18	Same as 164-1.	Terminal board, bottom of chassis, rear right.	....

30. TABLE OF REPLACEABLE PARTS.— a. Radio Receiver BC-973-B.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
..	164–19		Same as 164-1.	Terminal board, bottom of chassis, front left.	..	....
..	164–20		Same as 164-1.	Terminal board, bottom of chassis, front right.	..	....
1	167–1		Coaxial Tube Line, consists of 5 ceramic beads equally spaced in a 4 3/8" long aluminum tube, with a 6" copper wire extending through the center. Its overall size is 3/16" diam. x 6" long. Special.	Coaxial tube line from the oscillator tube to the band switch.	1	G-1537
#4	168–1		Terminal Board is made of Le Natural Phenolic and wax impregnated It has 2—3/4" bent terminal lugs that are made of brass and tinned. Its overall dimensions are 5/16" x 2 1/16" x 1 1/16". (Same as 168-2, 168-3, 168-4.) Special.	Terminal board bottom of chassis, rear left.	29	P610-159
..	168–2		Same as 168-1.	Terminal board, bottom of chassis, rear right.	..	....
..	168–3		Same as 168-1.	Terminal board, bottom of chassis, front right.	..	....

..	168–4		Same as 168-1.	Mounts microphone current Resistor 18-1.	..	....
1	169–1		Loop Brush Assembly consists of 6 silver contact brushes and insulators, an aluminum casting and a brass wiper spring. Its overall size is $2\frac{9}{16}$" square x $3\frac{1}{8}$". Special.	Loop brush assembly provides contact between the loop and r-f circuit of the receiver.	1	G-1502
1	170–1		Housing, lower loop mounting; is a secondary aluminum casting. Its overall dimensions are $2\frac{1}{8}$" x $2\frac{1}{8}$" x $2\frac{27}{32}$". Special.	Lower loop mounting housing for loop brush assembly.	1	P285-114
1	171–1		Housing, upper loop mounting; is a secondary aluminum casting. It has a $\frac{1}{8}$" flange and its overall dimensions are $2\frac{1}{4}$" x $2\frac{3}{4}$" x $4\frac{11}{32}$". Special.	Upper loop mounting housing for loop brush assembly.	1	P285-115
8	172–1		Contact, silver brush; is made of coin silver. Overall dimensions are .218" diam. x $\frac{23}{32}$" long. (Same as 172-2, 172-3, 172-4, 172-5, 172-6, 172-7, 172-8.) Special.	Silver brush contact for loop brush assembly, front.	41	P941-102
..	172–2		Same as 172-1.	Silver brush contact for loop brush assembly, rear.	..	....
..	172–3		Same as 172-1.	Silver brush contact for loop brush assembly, lower left.	..	....

30. TABLE OF REPLACEABLE PARTS.— a. Radio Receiver BC-973-B.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
..	172–4		Same as 172-1.	Silver brush contact for loop brush assembly, upper left.	..	....
..	172–5		Same as 172-1.	Silver brush contact for loop brush assembly, lower right.	..	....
..	172–6		Same as 172-1.	Silver brush contact for loop brush assembly, upper right.	..	....
..	172–7		Same as 172-1.	Silver brush contact, loop bearing, left.	..	....
..	172–8		Same as 172-1.	Silver brush contact, loop bearing, right.	..	....
8	173–1		Spring, silver brush contact; is made of 23 Ga. B. & S. Beryllium Copper (.023″). It consists of 5 turns with an outside diameter of .203″ and 5/16″ long. (Same as 173-2, 173-3, 173-4, 173-5, 173-6, 173-7, 173-8.) Special.	Spring for holding Silver Brush Contact 172-1.	39	P280-137
..	173–2		Same as 173-1.	Spring for holding Silver Brush Contact 172-2.	..	....

"	173–	Same as 173-1.	Silver Brush Contact 172-3.	"	....
"	173–4	Same as 173-1.	Spring for holding Silver Brush Contact 172-4.	"	....
"	173–5	Same as 173-1.	Spring for holding Silver Brush Contact 172-5.	"	....
"	173–6	Same as 173-1.	Spring for holding Silver Brush Contact 172-6.	"	....
"	173–7	Same as 173-1.	Spring for holding Silver Brush Contact 172-7	"	....
"	173–8	Same as 173-1.	Spring for holding Silver Brush Contact 172-8.	"	....
8	174–1	Bushing, silver brush contact; is made of XXXP Natural Phenolic and wax impregnated. It has a hole through the center and one side has 3/8"-32 thread for a distance of 5/32". The overall dimensions are 7/16" diam. x 3/8" long. (Same as 174-2, 174-3, 174-4, 174-5, 174-6, 174-7, 174-8.) Special.	Bushing for Silver Brush Contact 172-1.	38	P602-185

30. TABLE OF REPLACEABLE PARTS.— a. Radio Receiver BC-973-B.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
..	174–2		Same as 174-1.	Bushing for Silver Brush Contact 172-2.	..	....
..	174–3		Same as 174-1.	Bushing for Silver Brush Contact 172-3.	..	....
..	174–4		Same as 174-1.	Bushing for Silver Brush Contact 172-4.	..	....
..	174–5		Same as 174-1.	Bushing for Silver Brush Contact 172-5.	..	....
..	174–6		Same as 174-1.	Bushing for Silver Brush Contact 172-6.	..	....
..	174–7		Same as 174-1.	Bushing for Silver Brush Contact 172-7.	..	....
..	174–8		Same as 174-1.	Bushing for Silver Brush Contact 172-8.	..	....
1	175–1		Insulated Flexible Coupling is made of porcelain, phosphor bronze, and nickel-plated brass. It is furnished with four #6-32 setscrews. It has a .251″ diam. hole through the center and its overall size is 1¼″ x 1¼″ x ¾″. Type A.	Insulated flexible coupling is used to couple the gang capacitor to the dial drive.	32	P999-134

1	[illegible]		cold rolled steel and electro-galvanized (zinc .0003″). Its overall size is .248″ diam. x 1¼″ long. Special.	tension shaft.		
#1	177–1		Frequency Dial Drive and Dial Face. The dial face which is made of .020″ brass has the A and B bands on it. The dial face is 2¾″ diam. The dial scale has white letters on a black background. Special.	Frequency dial drive and dial face.	23	P951-115-1
#1	178–1		WESTON Dial Glass and Casing. The casing is made of bakelite and has a metal retainer. It has a semi-gloss olive drab finish. In each corner, there is a 11/64″ diam. hole. The overall dimensions are 3¼″ x 3¼″ x ½″. Special.	WESTON dial glass and casing for frequency dial.	1	P952-112
2	179–1		Gasket, neoprene. It is made of 1/32″ sheet of neoprene. Its size is 3 13/32″ x 3 13/32″ (overall) with a 3⅛″ diam. hole in the center. It has a .156″ diam. hole in each corner. (Same as 179-2.) Special.	Frequency dial gasket. Used with WESTON Dial Glass and Casing (178-1).	40	P616-126
..	179–2		Same as 179-1.	Meter case gasket. Used on WESTON Meter (103-1) only.	..	....

30. TABLE OF REPLACEABLE PARTS.— a. Radio Receiver BC-973-B.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
2	180–1		Ring, steel gasket. It is made of #22 Ga. cold rolled steel (.030), electro-galvanized (zinc .0005″). Outside edge has a semi-gloss olive drab finish. Its size is $3\frac{13}{32}$″ x $3\frac{13}{32}$″ with a $3\frac{1}{8}$″ diam. hole in the center. It has a.156″ diam. hole in each corner. (Same as 180-2.) Special.	Frequency dial gasket ring. Used with WESTON Dial Glass and Casing (178-1).	1	P202-251
..	180–2		Same as 180-1.	Meter case gasket ring. Used on WESTON Meter (103-1) only.	..	....
3	181–1		Jack Cover, output. It is made of steel and OUTPUT is engraved and painted white on a semi-gloss olive drab background. It contains a $\frac{5}{8}$″ diam. felt pad. Bottom mounting spring and pin are made of dull black nickel and lacquered. Overall size is $\frac{23}{32}$″ x $\frac{27}{32}$″ x $\frac{9}{32}$″. (Same as 181-2, 181-3.) Special.	Output jack cover, front panel, lower left corner.	23	P721-115-6
..	181–2		Same as 181-1.	Output jack cover, front panel, lower right corner.	..	....
..	181–3		Same as 181-1.	Output jack cover, right side panel, top front.	..	....

1	182–1		Jack Cover, microphone supply. The cover is made of steel and MIC. SUPPLY is engraved and painted white on a semi-gloss olive drab background. It contains a 5/8" diam. felt pad. Bottom mounting spring and pin are made of dull black nickel and lacquered. Overall size is 23/32" x 27/32" x 9/32". Special.	Microphone supply jack cover, left side panel, top front.	23	P721-115-1
1	183–1		Top Cover Assembly consists of a #17 Ga. cold rolled steel plate—11 5/32" x 13 1/2" long, a brake lock assembly, zero marker plate, loop lock bracket and 4 captive thumbscrews. It has a semi-gloss olive drab finish. Special.	Top cover assembly for the receiver.	1	G-1509
#4	184–1		Stud, mounting. It is made of cold rolled steel with a polished chrome finish (.00055"). Its overall size is 1/2" diam. x 1 1/8" long. (Same as 184-2, 184-3, 184-4.) Special.	Stud for mounting bottom cover to mounting plate, left front.	1	P251-159
..	184–2		Same as 184-1.	Stud for mounting bottom cover to mounting plate, right front.	..	....
..	184–3		Same as 184-1.	Stud for mounting bottom cover to mounting plate, left rear.	..	....

30. TABLE OF REPLACEABLE PARTS.— a. Radio Receiver BC-973-B.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
..	184–4		Same as 184-1.	Stud for mounting bottom cover to mounting plate, right rear.	..	....
#11	185–1		Socket, tube. It is made of mica filled bakelite. It has 8 silver-plated phosphor-bronze contacts. Its overall dimensions are 11/16" x 19/32" x 1¾". (Same as 185-2, 185-3, 185-4, 185-5, 185-6, 185-7, 185-8, 185-9, 185-10, 185-11.) Type #8209.	Tube socket for Tube 93-1.	54	P700-128
..	185–2		Same as 185-1.	Tube socket for Tube 93-2.	..	....
..	185–3		Same as 185-1.	Tube socket for Tube 94-1.	..	....
..	185–4		Same as 185-1.	Tube socket for Tube 94-2.	..	....
..	185–5		Same as 185-1.	Tube socket for Tube 94-3.	..	....
..	185–6		Same as 185-1.	Tube socket for Tube 94-4.	..	....

..	185-7	Same as 185-1.	Tube socket for Tube 95-1.	..	....
..	185-8	Same as 185-1.	Tube socket for Tube 95-2.	..	....
..	185–9	Same as 185-1.	Tube socket for Tube 96-1.	..	....
..	185–10	Same as 185-1.	Tube socket for Tube 97-1.	..	....
..	185–11	Same as 185-1.	Tube socket for Tube 97-2.	..	....
#1	186–1	Connector, meter plug. It has a 3/4″-20 thread for 5/32″. Its overall dimensions are 13/16″ diam. x 29/32″ long. Type AN3106-14S-2S (Female Contacts).	Meter plug connector.	19	P715-119
#2	187–1	Gasket, rubber. It is made of molded black rubber-Durometer 80-85. It is 1/32″ thick and its overall size is 3 13/32″ x 3 13/32″. It has a 3.171″ diam. hole in the center and a .156 diam. hole in each corner. (Same as 187-2.) Special.	Meter case gasket. Used on SIMPSON Meter (103-1) only.	1	P616-128
..	187–2	Same as 187-1.	Frequency dial gasket. Used with SIMPSON Dial Glass and Casing (189-1).	..	....

30. TABLE OF REPLACEABLE PARTS.— a. Radio Receiver BC-973-B.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
2	188–1		Terminal lug is made of #24 gauge B.&S. (.020) phosphor bronze and hot tin dipped. It fits a #6 screw and its overall size is 5/16" x 13/16" x 1/8". (Same as 188-2.) Type #2108-6.	Grounds gang capacitor to chassis. Left center.	49	P930-177
..	188–2		Same as 188-1.	Grounds gang capacitor to chassis. Right center.	..	....
#1	189–1		SIMPSON Dial Glass and Casing. The casing is made of bakelite and has a metal retainer. It has a semi-gloss olive drab finish. In each corner there is a 11/64" diam. hole. The overall dimensions are 3 1/4" x 3 1/4" x 1/2". Special.	SIMPSON dial glass and casing for frequency dial.	53	P952-118

30. TABLE OF REPLACEABLE PARTS.—

b. Radio Receiver BC-1003-B.—

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
1	200		Radio Receiver BC-1003-B is a 13-tube twin-channel superheterodyne, having a converter mixer stage and 4 i-f stages per channel, an oscillator stage, a beat frequency oscillator, an audio stage, and a dual-pointer meter coupled to the output for visual signal indication. Special.	To receive r-f signals from 100 kc to 1000 kc and converting r-f signals to audible signals.	1	P953-181
#4	201–1		Resistor, fixed, carbon, insulated, 10,000-ohm, ½-watt, ±5% tolerance, ⅝″ x 3/16″ diam. (Same as 201-2, 201-3, 201-4.)	A band, sense coil shunt.	5	P416-3
..	201–2		Same as 201-1.	Meter isolating resistor, right.	..	....
..	201–3		Same as 201–1.	Meter isolating resistor, left.	..	....
..	201–4		Same as 201-1.	VT-153 plate isolating resistor.	..	....
#3	202–1		Resistor, fixed, carbon, insulated, 35,000-ohm, ½-watt, ±5% tolerance, ⅝″ x 3/16″ diam. (Same as 202-2, 202-3.)	Left, VT-161, injector grid return.	5	P416-9

30. TABLE OF REPLACEABLE PARTS.— b. Radio Receiver BC-1003-B.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
..	202–2		Same as 202-1.	Right, VT-161, injector grid return.	..	....
..	202–3		Same as 202-1.	Oscillator grid return.	..	....
#1	203–1		Resistor, fixed, carbon, insulated, 5,000-ohm, 1-watt, ±5% tolerance, ¾" x ¼" diam.	B band, sense coil shunt.	5	P416-40
#1	204–1		Resistor, fixed, carbon, insulated, 1,000-ohm, ½-watt, ±5% tolerance, ⅝" x 3/16" diameter.	C band, sense coil shunt.	5	P416-7
#9	205–1		Resistor, fixed, carbon, insulated, 300-ohm, ½-watt, ±5%, ⅝" x 3/16" diam. (Same as 205-2, 205-3, 205-4, 205-5, 205-6, 205-7, 205-8, 205-9.)	Left, VT-161, cathode.	5	P416-6
..	205–2		Same as 205-1.	Right, VT-161, cathode.	..	....
..	205–3		Same as 205-1.	Right, VT-209, cathode.	..	....
..	205–4		Same as 205-1.	Left, VT-209, cathode.	..	....
..	205–5		Same as 205-1.	Right, VT-209, cathode.	..	....

..	205–6		Same as 205–1.	Left, VT-209, cathode.	..	....
..	205–7		Same as 205–1.	Right, VT-209, cathode.	..	....
..	205–8		Same as 205-1.	Left, VT-209, cathode.	..	....
..	205–9		Same as 205-1.	Sense antenna load.	..	....
#1	206–1		Resistor, fixed, carbon, insulated, 1,000-ohm, ½-watt, ±5% tolerance, ⅝" x 3/16" diam.	VT-134 cathode.	5	P416-41
#6	207–1		Resistor, fixed, carbon, insulated, 100,000-ohm, 1-watt, ±5% tolerance, ¾" x ¼" diam. (Same as 207-2, 207-3, 207-4, 207-5, 207-6.)	1st i-f, right, AVC isolating resistor.	5	P416-35
..	207–2		Same as 207-1.	1st i-f, left, AVC isolating resistor.	..	....
..	207–3		Same as 207-1.	2d i-f, left, AVC isolating resistor.	..	....
..	207–4		Same as 207-1.	3d i-f, right, AVC isolating resistor.	..	....
..	207–5		Same as 207-1.	3d i-f, left, AVC isolating resistor.	..	....
..	207–6		Same as 207-1.	2d i-f, right, AVC isolating resistor.	..	....

30. TABLE OF REPLACEABLE PARTS.— b. Radio Receiver BC-1003-B.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
#1	208–1		Resistor, fixed, carbon, insulated, 100,000-ohm, ½-watt, ±5% tolerance, ⅝″ x 3/16″ diameter.	VT-162 plate resistor, beat frequency oscillator.	5	P416-1
#8	209–1		Resistor, fixed, carbon, insulated, 2,000-ohm, 1-watt, ±5% tolerance, ¾″ x ¼″ diam. (Same as 209-2, 209-3, 209-4, 209-5, 209-6, 209-7, 209-8.)	1st i-f, right, B+ isolating resistor.	5	P416-36
..	209–2		Same as 209-1.	1st i-f, left, B+ isolating resistor.	..	....
..	209–3		Same as 209-1.	2d i-f, right, B+ isolating resistor.	..	....
..	209–4		Same as 209-1.	2d i-f, left, B+ isolating resistor.	..	....
..	209–5		Same as 209-1.	3d i-f, right, B+ isolating resistor.	..	....
..	209–6		Same as 209-1.	3d i-f, left, B+ isolating resistor.	..	....
..	209–7		Same as 209-1.	4th i-f, left, B+ isolating resistor.	..	....

..	209–8		Same as 209-1.	4th i-f, right, B+ isolating resistor.	..	....
#8	210–1		Resistor, fixed, carbon, insulated, 50,000-ohm, ½-watt, ±5% tolerance, ⅝" x 3/16" diam. (Same as 210-3, 210-4, 210-5, 210-6, 210-9, 210-10, 210-11.)	Right, VT-209 screen bleeder.	5	P416-2
..	210–3		Same as 210-1.	Left, VT-209 screen bleeder.	..	....
..	210–4		Same as 210-1.	Right, VT-209 screen bleeder.	..	....
..	210–5		Same as 210-1.	Right, VT-209 screen bleeder.	..	....
..	210–6		Same as 210–1.	Left, VT-209 screen bleeder.	..	....
..	210–9		Same as 210-1.	Left, VT-209 screen bleeder.	..	....
..	210–10		Same as 210-1.	Screen bleeder resistor, mixer, right.	..	....
..	210–11		Same as 210-1.	Screen bleeder resistor, mixer, left.	..	....

30. TABLE OF REPLACEABLE PARTS.—b. Radio Receiver BC-1003-B.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
#8	211–1		Resistor, fixed, carbon, insulated, 35,000-ohm, 1-watt, ±5% tolerance, ¾" x ¼" diam. (Same as 211-2, 211-3, 211-4, 211-5, 211-6, 211-7, 211-8.)	Right, VT-209 screen dropping resistor.	5	P416-37
..	211–2		Same as 211-1.	Left, VT-209 screen dropping resistor.	..	....
..	211–3		Same as 211-1.	Right, VT-209 screen dropping resistor.	..	....
..	211–4		Same as 211-1.	Left, VT-209 screen dropping resistor.	..	....
..	211–5		Same as 211-1.	Right, VT-209 screen dropping resistor.	..	....
..	211–6		Same as 211-1.	Left, VT-209 screen dropping resistor.	..	....
..	211–7		Same as 211-1.	Right, VT-161, screen resistor.	..	....
..	211–8		Same as 211-1.	Left, VT-161, screen resistor.	..	....
#1	212–1		Resistor, fixed, carbon, insulated, 20,000-ohm, 2-watt, ±5% tolerance, 1⅜" x ⅜" diameter.	VT-162 plate load resistor.	5	P416-70

#1	213–1		Potentiometer, wire wound, 1500-ohm, ±20% tolerance, 7/32" shaft; 1 5/8" diameter. Taper, at 50% rotation is 1100 ohms. Special.	Sensitivity control.	10	P430-109
#1	214–1		Potentiometer, wire wound, 60,000-ohm, ±20% tolerance, 7/32" shaft; 1 5/8" diameter, linear. Type #58.	Balance control.	9	P430-106
#1	216–1		Resistor, fixed, carbon, insulated, 500,000-ohm, 1/2-watt, ±5% tolerance, 5/8" x 3/16" diameter.	VT-134 grid resistor.	5	P416-8
#2	217–1		Resistor, fixed, carbon, insulated, 1 megohm, 1/2-watt, ±5% tolerance, 5/8" x 3/16" diameter. (Same as 217-2.)	VT-162 plate resistor.	5	P416-4
..	217–2		Same as 217-1.	Right, VT-153 screen dropping resistor.	..	....
#1	218–1		Potentiometer, wire wound, 20,000-ohm, ±20% tolerance, and special shaft (1/4" x 1 3/8"); 1 5/8" in diameter. Taper, at 50% rotation is 4000 ohms. Type #58.	Volume control.	9	P430-107
#1	219–1		Resistor, fixed, carbon, insulated, 20-ohm, 2-watt, ±5% tolerance, 1 3/8" x 3/8" diameter.	Relay resistor, beat frequency oscillator.	5	P416-71
#1	220–1		Resistor, fixed, carbon, insulated, 75,000-ohm, 1-watt, ±5% tolerance, 3/4" x 1/4" diameter.	VT-153 plate isolating resistor.	5	P416-39
#1	221–1		Resistor, fixed, carbon, insulated, 100-ohm, 2-watt, ±5% tolerance, 1 3/8" x 3/8" diameter.	Mike current resistor.	5	P416-74

30. TABLE OF REPLACEABLE PARTS.— b. Radio Receiver BC-1003-B.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
#1	222–1		Resistor, fixed, carbon, insulated, 200,000-ohm, 1-watt, ±5% tolerance, ¾" x ¼" diam.	AVC resistor.	5	P416-38
#6	226–1		Resistor, fixed, carbon, insulated, 100-ohm, ½-watt, ±5% tolerance, ⅝" x 3/16" diam. (Same as 226-2, 226-3, 226-4, 226-5, 226-6.)	1st i-f cathode, right.	5	P416-11
..	226–2		Same as 226-1.	2d i-f cathode, right.	..	....
..	226–3		Same as 226-1.	Mixer cathode, left.	..	....
..	226–4		Same as 226-1.	1st i-f cathode, left.	..	....
..	226–5		Same as 226-1.	2d i-f cathode, left.	..	....
..	226–6		Same as 226-1.	Mixer cathode, right.	..	....
#2	227–1		Resistor, fixed, carbon, insulated, 5600-ohm, ½-watt, ±10% tolerance, ⅝" x 3/16" diam. (Same as 227-2.)	Diode series resistor, right.	5	P416-14
..	227–2		Same as 227-1.	Diode series resistor, left.	..	....
#2	228–1		Resistor, fixed, carbon, insulated, 2200-ohm, ½-watt, ±10% tolerance, ⅝" x 3/16" diameter. (Same as 228-2.)	Diode resistor, right.	5	P416-16

..	228–2		Same as 228-1.	Diode resistor, left.	..	....
#2	229–1		Resistor, fixed, carbon, insulated, 22-ohm, ½-watt, ±10% tolerance, 5/8" x 3/16" diam. (Same as 229-2.)	A band, series loading coil resistor, left.	5	P416-15
..	229–2		Same as 229-1.	A band, series loading coil resistor, right.	..	....
#1	230–1		Resistor, fixed, carbon, insulated, 39-ohm, 1-watt, ±10% tolerance, 3/4" x 1/4" diameter.	Sensitivity control, ground return.	5	P416-47
#4	240–1		Capacitor, silver mica, 50 μμf, 500v, ±3% tolerance. Size—11/64" x 7/16" x 11/16" rectangular. (Same as 240-2, 240-3, 240-4.) Type MOS Mica.	Osc. coupling VT-161, left.	33	P303-113-6
..	240–2		Same as 240-1.	Osc. coupling VT-161, right.	..	....
..	240–3		Same as 240-1.	C band, oscillator padder.	..	....
..	240–4		Same as 240-1.	Oscillator grid capacitor.	..	....
#1	241-1A 241-1B 241-1C 241-1D		Capacitor, variable, 4-section gang: Section 1. .....31 plate, Section 2.....19 plate, Section 3..... 7 plate, Section 4.....31 plate. Size—3 3/16" x 4 31/32" x 1 27/32". Gear ratio 12:1. Aluminum capacitor plates. Special.	Main tuning capacitor.	7	P300-104

30. TABLE OF REPLACEABLE PARTS.—b. Radio Receiver BC-1003-B.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
#10	242-1A, 242-1B		Capacitor, dual, .1 μf, bathtub—400 w-v, +14% −15% tolerance. Size—1 13/16" x 1" x 13/16". Two terminals. (Same as 242-2A, 242-2B, 242-3A, 242-3B, 242-4A, 242-4B, 242-5A, 242-5B, 242-6A, 242-6B, 242-7A, 242-7B, 242-8A, 242-8B, 242-9A, 242-9B, 242-10A, 242-10B.) Type BA.	Cathode and screen by-pass, VT-161 mixer, left.	2	P302-126
..	242–2A, 242–2B		Same as 242-1A, 242-1B.	Left, 1st i-f, B+ and AVC by-pass.	..	....
..	242–3A, 242–3B		Same as 242-1A, 242-1B.	Cathode and screen by-pass, 1st i-f VT-209, left.	..	....
..	242–4A, 242–4B		Same as 242-1A, 242-1B.	Left, 2d i-f, B+ and AVC by-pass.	..	....
..	242–5A, 242–5B		Same as 242-1A, 242-1B.	Cathode and screen by-pass, 3d i-f VT-209, left.	..	....
..	242–6A, 242–6B		Same as 242-1A, 242-1B.	Cathode and screen by-pass, VT-161 mixer, right.	..	....

..	242-7A 242-7B	Same as 242-1A 242-1B.	Right, 1st i-f, B+ and AVC by-pass.	..	....
..	242-8A 242-8B	Same as 242-1A 242-1B.	Cathode and screen by-pass, 1st i-f VT-209, right.	..	....
..	242-9A 242-9B	Same as 242-1A 242-1B.	Right, 2d i-f, B+ and AVC by-pass.	..	....
..	242-10A 242-10B	Same as 242-1A 242-1B.	Cathode and screen by-pass, VT-209, 3d i-f, right.	..	....
#2	243-3	Capacitor, .5 μf, 400 w-v, bathtub, +14% −6% tolerance, two terminals. Size—1 13/16" x 1" x 13/16". (Same as 243-4.) Type BAE.	Filament by-pass.	2	P302-128
..	243-4	Same as 243-3.	B+ by-pass.	..	....
#6	244-1	Capacitor, moulded paper, .1 μf, 400 w-v, ±20% tolerance. Size—1 13/32" x 3/4" x 3/8" rectangular. (Same as 244-2, 244-3, 244-4, 244-5, 244-6.) Type 345.	4th i-f, left and right AVC by-pass.	3	P302-131-1
..	244-2	Same as 244-1.	Left, meter by-pass.	..	....
..	244-3	Same as 244-1.	Right, meter by-pass.	..	....
..	244-4	Same as 244-1.	Sensitivity by-pass.	..	....
..	244-5	Same as 244-1.	Beat oscillator coupling capacitor.	..	....

30. TABLE OF REPLACEABLE PARTS.—b. Radio Receiver BC-1003-B.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
..	244–6		Same as 244-1.	On-off switch by-pass.	..	....
#2	245–1		Capacitor, mica, .01 μf, 300 w-v, ±20% tolerance. Size—¾″ x ¾″ x ¼″. (Same as 245-2.) Type 1468.	B+ by-pass, 4th i-f, right.	4	P303-113-18
..	245–2		Same as 245-1.	B+ by-pass, 4th i-f, left.	..	....
#6	246–1		Capacitor, variable air trimmer, 35 μμf effective capacity, 18 plates, overall length 1½″, ¼″ diameter shaft, spring wiper location—center. (Same as 246-2, 246-3, 246-4, 246-5, 246-6.) Type ASP.	Loop trimmer, right, C band.	8	P304-105-1
..	246–2		Same as 246-1.	Loop trimmer, right, B band.	..	....
..	246–3		Same as 246-1.	Loop trimmer, right, A band.	..	....
..	246–4		Same as 246-1.	Loop trimmer, left, C band.	..	....
..	246–5		Same as 246-1.	Loop trimmer, left, B band.	..	....

..	246–6		Same as 246-1.	Loop trimmer, left, A band.	..	....
#2	248–1		Capacitor, silver mica, 100 $\mu\mu$f, 500 v, $\pm$3% tolerance. Size—11/64" x 1 1/16" x 7/16" rectangular. (Same as 248-2.) Type MOS Mica.	Right, A band trimmer shunt.	33	P303-113 1
..	248–2		Same as 248-1.	Left, A band trimmer shunt.	..	....
#2	250–1		Capacitor, variable air trimmer, 22$\mu\mu$f effective capacity, 7 plates. Overall length 13/16", 1/4" diam. shaft. Spring wiper location —left. (Same as 250-2.) Type ASP.	A band, parallel trimmer.	8	P304-105-3
..	250–2		Same as 250-1.	B band, parallel trimmer.	..	....
#1	251–1A 251–1B		Capacitor, variable air trimmer, double maximum capacity 26 $\mu\mu$f, minimum 5 $\mu\mu$f, air gap .016. Plates are brass and silver plated. Base is made of isolantite. Type ASP.	B band, series padder. C band, series padder.	8	P304-106-1
#2	252–1		Capacitor, silver mica, 80 $\mu\mu$f, 500 v, $\pm$2% tolerance. Size—11/64" x 1 1/16" x 7/16" rectangular. (Same as 252-2.) Type MOS Mica.	B band, oscillator shunt capacitor.	33	P303-113-11
..	252–2		Same as 252-1.	C band, oscillator shunt capacitor.	..	....

30. TABLE OF REPLACEABLE PARTS.—b. Radio Receiver BC-1003-B.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
#2	254–1		Capacitor, variable air trimmer, 22 $\mu\mu$f effective capacity, 7 plates. Overall length $^{13}/_{16}$", $^{1}/_{4}$" diameter shaft. Spring wiper location—right. (Same as 254-2.) Type ASP.	A band, series padder.	8	P304-105-2
..	254–2		Same as 254-1.	C band, parallel trimmer.	..	....
#2	255–1		Capacitor, silver mica, 160 $\mu\mu$f, 500 v, $\pm$3% tolerance. Size—$^{11}/_{64}$" x $^{11}/_{16}$" x $^{7}/_{16}$" rectangular. (Same as 255-2.) Type MOS Mica.	A band, oscillator padder.	33	P303-113-21
..	255–2		Same as 255-1.	A band, oscillator shunt capacitor.	..	....
#2	256–1		Capacitor, moulded paper, .01 μf, 400 w-v, $\pm$20% tolerance. Size—rectangular $1^{13}/_{32}$" x $^{3}/_{4}$" x $^{3}/_{8}$". (Same as 256-2.) Type 340.	Oscillator coupling capacitor.	3	P302-131-3
..	256–2		Same as 256-1.	Screen by-pass, beat oscillator.	..	....
#1	258–1		Capacitor, moulded paper, .03 μf, 400 w-v, $\pm$20% tolerance. Size—rectangular $1^{13}/_{32}$" x $^{3}/_{4}$" x $^{3}/_{8}$". Type 342.	VT-134 grid coupling capacitor.	3	P302-131-2

#1	259–1		Capacitor, electrolytic, 10 μf, 25 v, tubular. Size—diam. 1 1/16" x 1 11/16" long. Type MMS.	VT-134 cathode by-pass.	2	P301-112
#1	260–1		Capacitor, silver mica, 300 μμf, 500 v, ±2% tolerance. Size—11/64" x 1 1/16" x 7/16" rectangular. Type MOS Mica.	Oscillator padder common to all bands.	33	P303-113-2
#2	261–1		Capacitor, electrolytic, 500 μf, 6 w-v, ±20% tolerance. Size—1 3/4" x 2" x 7/8". (Same as 261-2.) Type BE.	Right, meter damping.	2	P302-132
..	261–2		Same as 261-1.	Left, meter damping.	..	....
#1	262–1		Capacitor, silver mica, 185 μμf, 500 v, ±2% tolerance. Size—11/64" x 1 1/16" x 7/16" rectangular. Type MOS Mica.	B band, oscillator padder.	33	P303-113-22
#1	263–1		Capacitor, electrolytic, 25 μf, 25 w-v, tubular. Size—1 1/16" diameter x 1 11/16" long. Type MMS.	By-pass for balance switch.	2	P301-111
#4	264–1A 264–1B		Capacitor, dual, .1 μf, bathtub, 400 w-v, +14%–6% tolerance. Size—1 13/16" x 1" x 13/16". Two terminals. (Same as 264-2A 264-2B, 264-3A 264-3B, 264-4A 264-4B.) Type BAE.	Cathode and screen by-pass, VT-209, 2d i-f, right.	2	P302-127
..	264–2A 264–2B		Same as 264-1A 264-1B.	Right, 3d i-f, B+ and AVC by-pass.	..	....

30. TABLE OF REPLACEABLE PARTS.—b. Radio Receiver BC-1003-B.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
..	264–3A 264–3B		Same as 264-1A 264-1B.	Left, 3d i-f, B+ and AVC by-pass.	..	....
..	264–4A 264–4B		Same as 264-1A 264-1B.	Cathode and screen by-pass, 2d i-f VT-209, left.	..	....
#4	266–1		Capacitor, plain mica, 2000 $\mu\mu$f, $\pm$20% tolerance, square—¾" x ¾" x ¼". (Same as 266-2, 266-3, 266-4.) Type MW Mica.	Plate by-pass for VT-134.	33	P303-113-20
..	266–2		Same as 266-1.	R-F filter.	..	....
..	266–3		Same as 266-1.	Plate by-pass for VT-153.	..	....
..	266–4		Same as 266-1.	Audio by-pass for secondary of output transformer.	..	....
#1	269–1		Coil Assembly, loop loading, at 1 kc the inductance of band A coil is 2.956 millihenrys, and band B coil is .256 millihenrys, $\pm$5% tolerance, ¾" x ⅜" outside diam. iron core with bakelite spacer. Aluminum shield can is 1⅜" x 1⅜" x 3⅛" and it has two iron core tuning slugs on the right side. Special.	Right channel, loop loading coil.	1	G-1638

#1	270–1		Coil, sense, covers 100-200 kc. At 1 kc, the inductance start to finish is 3.872 millihenrys, and start to tap is 4.070 millihenrys, ±2% tolerance; ¾" x ⅜" outside diameter iron core. Primary has 2 pies in series, ⅛" apart. Secondary consists of 3 turns of 10-44 single celanese wire. Special.	A band, sense coil.	6	P500-133-1
#1	271–1		Coil, sense, covers 200-450 kc. At 1 kc, the inductance start to finish is 1.081 millihenrys, and start to tap is 1.19 millihenrys, ±2% tolerance; ¾" x ⅜" outside diameter iron core. Primary has 2 pies in series, ⅛" apart. Secondary consists of 3 turns of 10-44 single celanese wire. Special.	B band, sense coil.	6	P500-133-2
#1	272–1		Coil, sense, covers 450-1000 kc. At 1 kc, the inductance start to finish is .237 millihenrys, and start to tap is .244 millihenrys, ±2% tolerance; ¾" x ⅜" outside diameter iron core. Primary has 2 pies in series, ⅛" apart. Secondary consists of 3 turns of 10-44 single celanese wire. Special.	C band, sense coil.	6	P500-133-3

30. TABLE OF REPLACEABLE PARTS.— b. Radio Receiver BC-1003-B.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
#1	273–1		Coil Assembly, oscillator, consists of 3 coils mounted on a Le Phenolic terminal board. The A band coil has 50 turns of 36 single celanese wire on the primary and 51 turns of 6-42 single celanese wire on the secondary. The B band coil has 26 turns of 36 single celanese wire on the primary and 52 turns of 6-42 single celanese wire on the secondary. The C band coil has 21 turns of 36 single celanese wire on the primary and 36 turns of 6-42 single celanese wire on the secondary. The inductance of the secondaries are adjusted by means of slugs. The overall dimensions are 2⅝" x 1½" x 15/16". Special.	A, B, and C band oscillator coil assembly.	6	P500-136
#1	274–1		Coil Assembly, loop loading. At 1 kc the inductance of band A coil is 2.956 millihenrys and band B coil is .256 millihenrys, ±5% tolerance, ¾" x ⅜" outside diameter iron core with bakelite spacer. Aluminum shield can is 1⅜" x 1⅜" x 3⅛", and it has two iron core tuning slugs on the left side. Special.	Left channel, loop loading coil.	1	G-1639

#2	275–1		Transformer Assembly, 1st i-f, peaked frequency 1625 kc, interstage; both the primary and secondary are tapped and have a 150 $\mu\mu$f capacitor and an air dielectric trimmer across them; the tap off the secondary has a 56,000-ohm resistor across it; coils are made of 6-42 single celanese wire, powdered iron core. The aluminum shield can is 1 1/16" x 1 7/8" x 4". (Same as 275-2.) Special.	Left channel, 1st i-f.	1	G-1674
..	275–2		Same as 275-1.	Right channel, 1st i-f.	..	....
#2	276–1		Transformer, 2d i-f, peaked frequency 1625 kc, interstage; the secondary has a 150 $\mu\mu$f capacitor and an air dielectric trimmer across it. The primary is made of 245 turns of #36 single silk covered wire and the secondary consists of 44 turns of 20-44 single celanese covered wire. It has a powdered iron core. The aluminum shield can is 1 1/16" x 1 7/8" x 4". (Same as 276-2.) Special.	Left channel, 2d i-f.	6	P815-116-1
..	276–2		Same as 276-1.	Right channel, 2d i-f.	..	....
#2	277–1		Transformer Assembly, 3d i-f, peaked frequency 1625 kc, interstage; the primary has an 18,000-ohm resistor across it; the secondary has a 150 $\mu\mu$f capacitor and an air dielectric trimmer across it. The primary is made of 245 turns of #36 single silk covered wire and the secondary consists of 44 turns of 20-44 single celanese covered wire. It has an iron core. The aluminum shield can is 1 1/16" x1 7/8" x 4". (Same as 277-2.) Special.	Left channel, 3d i-f.	1	G-1673

30. TABLE OF REPLACEABLE PARTS.— b. Radio Receiver BC-1003-B.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
..	277–2		Same as 277-1.	Right channel, 3d i-f.	..	....
#2	278–1		Transformer Assembly, 4th i-f, peaked frequency 1625 kc, interstage; the primary is shunted by an 80 $\mu\mu$f capacitor and an air dielectric trimmer; the secondary is in series with a 300-ohm resistor and is connected to the tertiary by a 2000 $\mu\mu$f capacitor; the tertiary circuit has 3—1 megohm and 1—½ megohm resistors, a 100 and 10.000 $\mu\mu$f capacitor; coils are made of 3-41 single celanese wire, air core. The aluminum shield can is 1 7/16" x 1⅛" x 4", and it has plastic tubing and a grid clip attached to it. (Same as 278-2.) Special.	Left channel, 4th i-f.	1	G-1589
..	278–2		Same as 278-1.	Right channel, 4th i-f.	..	....
#4	279–1		Jack, single contact open, with brass bushing and insulating washers, fits in ⅜" mounting hole; 1¼" long. It has a locating lug. (Same as 279-2, 279-3, 279-4.) Signal Corps Type JK34A.	Output.	10	P721-114-1
..	279–2		Same as 279-1.	Output.	..	....
..	279–3		Same as 279-1.	Output.	..	....

..	279–4		Same as 279-1.	Microphone supply.	..	....
#3	280–1		Switch, toggle, S.P.S.T., 3-amp—250-volt. 15/32″ diam.—32 threads. (Same as 280-2, 280-3.) Type #8280.	Light switch.	12	P710-126
..	280–2		Same as 280-1.	AVC switch.	..	....
..	280–3		Same as 280-1.	C-W oscillator switch.	..	....
#1	281–1		Switch, pushbutton, S.P.S.T., 3 amp—125-volt. 15/32″ diameter—32 threads. Type #GA.	Sense switch.	11	P710-125
#2	282–1		Switch, toggle, D.P.S.T., 6-amp—125-volt. 15/32″ diam.—32 threads. (Same as 282-2.) Type #8370.	Meter damping.	12	P710-127
..	282–2		Same as 282–1.	On-Off switch.		
1	283–1A 283–1B 283–1C 283–1D		Switch, gang, 4 sections, 3 operating positions. Overall dimensions—4 3/8″ x 1 7/8″ x 1 9/16″. Brass bushing 3/8″ x 32 thread. 1/4″ diameter shaft. Special.	Band change switch.	25	P710-129
#1	284–1		Switch, balance, spring contact, phosphor bronze spring. 2 3/32″ silver points. Overall size—1 1/2″ x 11/16″ x 1 13/32″. Special.	Balance switch.	27	P716-104
2	289–1		Tube VT-161, RMA type 12SA7. (Same as 289-2.)	Left channel, mixer.	34 35 36	

30. TABLE OF REPLACEABLE PARTS.—b. Radio Receiver BC-1003-B.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
..	289–2		Same as 289-1.	Right channel, Mixer.	..	
#3	290–1		Relay, d-c, D.P.D.T. type, rating—11 ohms at 3 volts, (relay must operate at 2½ volts). Size—⅞" x 1⅛" x 1 7/16". (Same as 290-2, 290-3.) Type #1604.	Left, balance relay.	13	P830-109
..	290–2		Same as 290-1.	Right, balance relay.	..	....
..	290–3		Same as 290-1.	Sense relay.	..	....
#1	291–1		Relay, d-c, D.P.D.T. type, rating—40 ohms at 6 volts, (relay must operate at 5 volts). Size—⅞" x 1⅛" x 1 7/16". Type #1604.	Beat frequency oscillator relay.	13	P830-110
#1	292–1		Transformer, audio output, power requirements—½-watt. Primary, 8000 ohms, consists of 2400 turns of #39 plain enamel wire. The secondary of 4000 ohms has a 250-ohm tap. The coil from start to tap consists of 420 turns of #36 plain enamel wire, the balance of secondary is made of 1200 turns of #39 plain enamel wire. It has an iron core and fits in a zinc case (with black oxidized finish) 1 13/32" x 1 13/32" x 1 7/8". Special.	Audio output.	20	P805-104

#1	293–1		Coil Assembly, beat oscillator. The assembly consists of a coil which at 1 kc, has an inductance from start to finish of 64.2 microhenrys and from start to tap of 5.85 microhenrys; a 50,000-ohm resistor, 250 and 125 $\mu\mu$f capacitors and an air dielectric trimmer capacitor with a maximum and minimum value of 26 and 5 $\mu\mu$f respectively. The aluminum shield can is 1½" x 1⅞" x 3½". Special.	Beat oscillator coil assembly.	6	P500-123
#1	294–1		Coil, shunt. At 1 kc the inductance is 151 microhenrys, ±3% tolerance. The coil consists of 4 pies and each is made of 45 turns of 21-44 single silk enameled wire. The Q is 85 or greater. The overall dimensions are ⅞" x 9/16" diam. with 1½" leads. Special.	Shunt coil in oscillator assembly.	6	P500-135
6	295–1		Tube VT-209, RMA type 12SG7. (Same as 295-2, 295-3, 295-4, 295-5, 295-6.)	Left channel, 1st i-f.	34 35 36	
..	295–2		Same as 295-1.	Right channel, 1st i-f.	..	
..	295–3		Same as 295-1.	Left channel, 2d i-f.	..	
..	295–4		Same as 295-1.	Right channel, 2d i-f.	..	
..	295–5		Same as 295-1.	Left channel, 3d i-f, left of center.	..	
..	295–6		Same as 295-1.	Right channel, 3d i-f, right of center.	..	

30. TABLE OF REPLACEABLE PARTS.— b. Radio Receiver BC-1003-B.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
2	296–1		Tube VT-153, RMA type 12C8 Special. (Same as 296-2.)	Left channel, 4th i-f (2d detector).	34 35 36	
..	296–2		Same as 296-1.	Right channel, 4th i-f (2d detector).	..	
1	297–1		Tube VT-134, RMA type 12A6.	Audio output, front center.	34 35 36	
2	298–1		Tube VT-134, RMA type 12SJ7. (Same as 298-2.)	Main oscillator, front, right of center.	34 35 36	
..	298–2		Same as 298-1.	Beat frequency oscillator, rear center.	..	
#3	299–1		Pilot Light Bulb, 12-volt, with min. screw base. Overall length—1 3/16", diameter of bulb—13/32". (Same as 299-2, 299-3.) Type GE 1487.	Light bulb, front panel, left.	11	P460-105-1
..	299–2		Same as 299-1.	Light bulb, front panel, right.	..	....
..	299–3		Same as 299-1.	Light bulb, front panel, center.	..	....

			knob, brake, is engraved with a ... row on face as well as word BRAKE. Over-all dimensions—1⅛" diameter x ⅝" long. Material is brass and the edge is knurled. Fits on ¼" shaft and is held fast by 2 set-screws. Semi-gloss olive drab finish. Special.	ing azimuth scale in any fixed position.		
2	301–1		Handle, guard for front panel controls, ¼" steel rod. Overall dimensions—5²¹⁄₃₂" x 1⅝" with a ½" deep #8-32 tapped hole at each end for mounting. Semi-gloss olive drab finish. (Same as 301-2.) Special.	Guard handle, front panel, left.	1	P965-106
..	301–2		Same as 301-1.	Guard handle, front panel, right.	..	.....
#1	302–1		Meter, direction indicator, with pointers and zero line colored orange, all other lines and figures colored green on a black background. Overall dimensions—3¼" diam. x 3³⁄₃₂" long. Semi-gloss olive drab finish on the front. WESTON Model #635 Type 52 *or* SIMPSON Special Type Cross Pointer.	Direction indicator.	14 53	P956-104
3	303–1		Spacer, res. block mounting. ¼" diameter x ⅞" long. Made of Le Natural Phenolic and wax impregnated. 1⁄16" hole through center with each end tapped, #6-32 full thread. (Same as 303-2, 303-3.) Special.	Stand-off insulator, bottom, left side rear.	38	P602-183
..	303–2		Same as 303-1.	Stand-off insulator, bottom, right rear.	..	.....

30. TABLE OF REPLACEABLE PARTS.—b. Radio Receiver BC-1003-B.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
..	303–3		Same as 303-1.	Stand-off insulator, top, microphone supply resistor mount.	..	....
1	304–1		Knob, large dial, brass, with knurled edge. Overall dimensions—1⅛″ diam. x ⅝″ long. .251″ hole drilled clear through. Held fast by 2 setscrews. Semi-gloss olive drab finish. Special.	Large dial knob.	1	P950-128-1
1	305–1		Knob, small dial, brass with knurled edge. Size—⅝″ diam. x ½″ long. ⅛″ hole drilled 15/32″ deep. Held fast by 2 setscrews. Semi-gloss olive drab finish. Special.	Small dial knob.	1	P950-129
1	306–1		Escutcheon, meter damp-off switch. METER DAMP-OFF is engraved and painted white on a semi-gloss olive drab background. Size—1″ diam. x 1/16″ thick, cold rolled steel, with a 31/64″ hole through the center. Special.	Meter damp-off switch escutcheon.	23	P953-163-6
1	307–1		Escutcheon, sense switch. SENSE is engraved and painted white on a semi-gloss olive drab background. Size—1″ diam. x 1/16″ thick, cold rolled steel, with a 31/64″ hole through the center. Special.	Sense switch escutcheon.	23	P953-163-7

1	308–1		Escutcheon, c-w oscillator-off switch. C.W. OSC.-OFF is engraved and painted white on a semi-gloss olive drab background. Size—1″ diam. x 1/16″ thick, cold rolled steel, with a 31/64″ hole through the center. Special.	C-W oscillator-off switch escutcheon.	23	P953-163-2
1	309–1		Escutcheon, lights-off switch. LIGHTS-OFF is engraved and painted white on a semi-gloss olive drab background. Size—1″ diam. x 1/16″ thick, cold rolled steel, with a 31/64″ hole through the center. Special.	Lights-off switch escutcheon.	23	P953-163-1
1	310–1		Escutcheon, MVC-AVC switch. MVC-AVC is engraved and painted white on a semi-gloss olive drab background. Size—1″ diam. x 1/16″ thick, cold rolled steel, with a 31/64″ hole through the center. Special.	MVC-AVC switch escutcheon.	23	P953-163-5
1	311–1		Escutcheon, on-off switch. ON-OFF is engraved and painted white on a semi-gloss drab background. Size—1″ diameter x 1/16″ thick, cold rolled steel, with a 31/64″ hole through the center. Special.	On-off switch escutcheon.	23	P953-163-4
1	312–1		Escutcheon, direction indicator. DIRECT SENSE RECIP'L and an arrow are engraved and painted white on a semi-gloss olive drab background. It is made of #16 Ga. cold rolled steel. It is 3/8″ wide and has 2—11/64″ diam. holes, one on each end. Special.	Escutcheon for direction indicator.	23	P953-167

30. TABLE OF REPLACEABLE PARTS.—b. Radio Receiver BC-1003-B.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
1	313–1		Knob, press to balance control. PRESS TO BALANCE is engraved and painted white on face. Overall dimensions—1⅜″ diam. x ⅝″ long. Material is brass and the edge is knurled. It has a ½″ deep hole which fits on a ⅛″ shaft and is held fast by 2 setscrews. Semi-gloss olive drab finish. Special.	Press to balance control knob.	1	P950-126
1	314–1		Escutcheon, volume control. VOLUME and arrow are engraved and painted white on a semi-gloss olive drab background. Size—2¼″ diam. x 1/16″ thick, cold rolled steel, with a ⅜″ hole through the center. Special.	Volume control escutcheon.	23	P953-165
1	315–1		Escutcheon, frequency band. FREQ. BAND and the three bands, A, B, and C are engraved and painted white on a semi-gloss olive drab background. Size—2″ diam. x 1/16″ thick, cold rolled steel, with a ⅜″ hole through the center. Special.	Frenquency band switch escutcheon.	23	P953-164-2

1	316–1		Escutcheon, sensitivity control. SENSITIVITY and numbers 1-10 are engraved and painted white on a semi-gloss olive drab background. Size—2″ diam. x 1/16″ thick, cold rolled steel, with a 3/8″ hole through the center. Special.	Sensitivity control escutcheon.	23	P953-164-1
2	317–1		Knob, sensitivity control, engraved with a 3/4″ white arrow. Overall dimensions—1 1/8″ diameter x 5/8″ long. Material is brass and the edge is knurled. Fits on 1/4″ shaft and is held fast by 2 setscrews. Semi-gloss olive drab finish. (Same as 317-2.) Special.	Sensitivity control knob.	1	P950-127-2
..	317–2		Same as 317-1.	Frequency band knob.	..	....
2	318–1		Handle, carrying, is made of steel. The mounting plate of 1/16″ steel is 3 5/8″ long x 2 7/8″ wide. The handle proper which is 5/16″ in diameter is 3 1/2″ x 1 7/8″ (overall). Semi-gloss olive drab finish. (Same as 318-2.) Type #61233.	Carrying handle, left side.	31	P965-105
..	318–2		Same as 318-1.	Carrying handle, right side.	..	....
1	319–1		Tube, pilot light extension, is made of 3/8″ seamless brass tubing, .065″ wall. Both ends are threaded—3/8″-32 thread. Overall dimensions—1 3/16″ x 1 5/16″, semi-gloss olive drab finish. Special.	Pilot light extension tube, top center of front panel.	1	P962-122

30. TABLE OF REPLACEABLE PARTS.—b. Radio Receiver BC-1003-B.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
1	320–1		Pilot Light Socket Assembly is made of brass. It consists of a threaded screw ½″-32 thread on one side and ⅜″-32 thread on the other. On the ⅜″ side there is a hex nut, fibre end, and a soldering contact. On the ½″ side there is a ⅛″ spacer and a circular nut. On this latter side a 15/16″ diam. x 1″ long reflecting cap, painted white on the inside and semi-gloss olive drab on the outside, is snapped on. A pilot light cover spring holds this cap in position. This spring has an inside diameter of 15/16″ and is made of #16 Ga. B. & S. phosphor bronze wire—050″. Special.	Pilot light socket assembly, front panel, top center.	1	G-1608
2	321–1		Pilot Light Socket Assembly is made of brass. It consists of a ½″-32 thread screw, hex nut, 2 silver plated contacts, ⅛″ spacer and a circular nut upon which a reflecting cap snaps on. This cap is 15/16″ diam. x 1″ long and is painted white on the inside and semi-gloss olive drab on the outside. A pilot light cover spring holds the cap in position. This spring has an inside diameter of 15/16″ and is made of #16 Ga. B. & S. phosphor bronze wire—.050″. (Same as 321-2.) Special.	Pilot light socket assembly, front panel, top left.	1	G-1609

..	321–2		Same as 321-1.	Pilot light socket assembly, front panel, top right.	..	....
1	322–1		Bottom Cover for receiver is made of #16 Ga. cold rolled steel. Size—10 15/16" x 12 13/16". There is a 1 1/32" hole in each corner for a Lord shock mount. It is electro-galvanized and then painted with semi-gloss olive drab enamel. Special.	Bottom cover for receiver.	1	P204-162
#8	323–1		Shock Mount has steel bushing center. It is 1 1/4" square x 13/32" thick. The mounting plate is .032" cold rolled steel and painted with semi-gloss olive drab enamel. There is .141" hole in each corner. (Same as 323-2, 323-3, 323-4, 323-5, 323-6, 323-7, 323-8.) Type 100P-187-6.	Shock mount, bottom cover, front left.	18	P616-116
..	323–2		Same as 323-1.	Shock mount, bottom cover, front right.	..	....
..	323–3		Same as 323–1.	Shock mount, bottom cover, rear left.	..	....
..	323–4		Same as 323-1.	Shock mount, bottom cover, rear right.	..	....
..	323–5		Same as 323-1.	Bottom side of chassis, left center.	..	....
..	323–6		Same as 323-1.	Bottom side of chassis, left center.	..	....

30. TABLE OF REPLACEABLE PARTS.— b. Radio Receiver BC-1003-B.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
..	323–7		Same as 323-1.	Bottom side of chassis, right center.	..	....
..	323–8		Same as 323-1.	Bottom side of chassis, right center.	..	....
#1	324–1		Socket SO-69 is made of brass with a dull white nickel finish. Overall size—2 3/16" diam. x 3/16" long. Signal Corps Type #SO-69.	Power Socket SO-69 connects receiver to plug of Cord CD-673-B.	16	P720-119
1	325–1		Brake Shoe Assembly consists of Guide Arm Assembly G-1521, steel brake shoe bracket, and a felt pad. Its overall dimensions are 2 11/16" x 3 1/8" x 5/8". Special.	Brake shoe assembly for holding azimuth scale in any fixed position.	1	G-1505
1	326–1		Cam, brake shoe lock; is made of cold drawn steel, chrome plated (.0003). Overall size—9/16" x 7/16" x 11/16". The shaft is 1/4" diam. x 9/16" long. Special.	Cam for brake shoe lock.	1	P251-160
1	327–1		Brake Guide Arm Assembly consists of a brake shoe guide arm made of 1/16" cold rolled steel and a plate made of #22 Ga. cold rolled steel. Its overall dimensions are 2 11/16" x 7/8" x 3/8". Special.	Brake guide arm assembly is used to control the brake shoe.	1	G-1521

1	328–1		Bracket, meter plug mounting, is made of #13 Ga. cold rolled steel (.090″), zinc plating .0005″. Overall size—1 5/8″ x 1 13/64″ x 2 21/32″. Special.	Meter plug mounting bracket.	1	P202-238
1	329–1		Escutcheon and Trimmer Cover. A PAR. is engraved and painted white on the cover. The escutcheon is made of 1/8″ and the cover of .020″ cold rolled steel and both have a semi-gloss olive drab finish. The escutcheon has a 13/32″ hole through the center. The overall size is 31/32″ diam. x 1/4″ long. Special.	Escutcheon and trimmer cover for band A parallel trimmer capacitor. Front panel, upper center.	23	P953-166-7
1	330–1		Escutcheon and Trimmer Cover. B PAR. is engraved and painted white on the cover. The escutcheon is made of 1/8″ and the cover of .020″ cold rolled steel and both have a semi-gloss olive drab finish. The escutcheon has a 13/32″ hole through the center. The overall size is 31/32″ diam. x 1/4″ long. Special.	Escutcheon and trimmer cover for band B parallel trimmer capacitor. Front panel, left center.	23	P953-166-8
1	331–1		Escutcheon and Trimmer Cover. C PAR. is engraved and painted white on the cover. The escutcheon is made of 1/8″ and the cover of .020″ cold rolled steel and both have a semi-gloss olive drab finish. The escutcheon has a 13/32″ hole through the center. The overall size is 31/32″ diam. x 1/4″ long. Special.	Escutcheon and trimmer cover for band C parallel trimmer capacitor. Front panel, right center.	23	P953-166-9

30. TABLE OF REPLACEABLE PARTS.—b. Radio Receiver BC-1003-B.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
1	332–1		Escutcheon and Trimmer Cover, A LOOP 1 is engraved and painted white on the cover. The escutcheon is made of 1/8" and the cover of .020" cold rolled steel and both have a semi-gloss olive drab finish. The escutcheon has a 13/32" hole through the center. The overall size is 31/32" diam. x 1/4" long. Special.	Escutcheon and trimmer cover for band A Loop 1 trimmer capacitor. Front panel, lower left center.	23	P953-166-1
1	333–1		Escutcheon and Trimmer Cover. B LOOP 1 is engraved and painted white on the cover. The escutcheon is made of 1/8" and the cover of .020" cold rolled steel and both have a semi-gloss olive drab finish. The escutcheon has a 13/32" hole through the center. The overall size is 31/32" diam. x 1/4" long. Special.	Escutcheon and trimmer cover for band B Loop 1 trimmer capacitor. Front panel, lower left center.	23	P953-166-2
1	334–1		Escutcheon and Trimmer Cover. C LOOP 1 is engraved and painted white on the cover. The escutcheon is made of 1/8" and the cover of .020" cold rolled steel and both have a semi-gloss olive drab finish. The escutcheon has a 13/32" hole through the center. The overall size is 31/32" diam. x 1/4" long. Special.	Escutcheon and trimmer cover for band C Loop 1 trimmer capacitor. Front panel, bottom left center.	23	P953-166-3

1	335-1	Escutcheon and Trimmer Cover. A LOOP 2 is engraved and painted white on the cover. The escutcheon is made of 1/8" and the cover of .020" cold rolled steel and both have a semi-gloss olive drab finish. The escutcheon has a 13/32" hole through the center. The overall size is 31/32" diam. x 1/4" long. Special.	Escutcheon and trimmer cover for band A Loop 2 trimmer capacitor. Front panel, lower right center.	23	P953-166-4
1	336-1	Escutcheon and Trimmer Cover. B LOOP 2 is engraved and painted white on the cover. The escutcheon is made of 1/8" and the cover of .020 cold rolled steel and both have a semi-gloss olive drab finish. The escutcheon has a 13/32" hole through the center. The overall size is 31/32" diam. x 1/4" long. Special.	Escutcheon and trimmer cover for band B Loop 2 trimmer capacitor. Front panel, lower right center.	23	P953-166-5
1	337-1	Escutcheon and Trimmer Cover. C LOOP 2 is engraved and painted white on the cover. The escutcheon is made of 1/8" and the cover of .020" cold rolled steel and both have a semi-gloss olive drab finish. The escutcheon has a 13/32" hole through the center. The overall size is 31/32" diam. x 1/4" long. Special.	Escutcheon and trimmer cover for band C Loop 2 trimmer capacitor. Front panel, bottom right center.	23	P953-166-6
1	338-1	Escutcheon and Trimmer Cover. A SER. is engraved and painted white on the cover. The escutcheon is made of 1/8" and the cover of .020" cold rolled steel and both have a semi-gloss olive drab finish. The escutcheon has 13/32" hole through the center. The overall size is 31/32" diam. x 1/4" long. Special.	Escutcheon and trimmer cover for band A series trimmer capacitor. Front panel, top center.	23	P953-166-10

30. TABLE OF REPLACEABLE PARTS.— b. Radio Receiver BC-1003-B.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
#4	339–1		Thumbscrew, top cover; it is made of brass, dull black nickel finish (.0003″). It has a knurled head ½″ diam. x ¼″ thick and #10-32 thread. Overall size is ½″ diam. x 13/16″ long. (Same as 339-2, 339-3, 339-4.) Special.	Captive thumbscrew attaches top cover to chassis, left front.	1	P1051
..	339–2		Same as 339-1.	Attaches top cover to chassis, right front.	..	....
..	339–3		Same as 339-1.	Attaches top cover to chassis, left rear.	..	....
..	339–4		Same as 339-1	Attaches top cover to chassis, right rear.	..	....
1	340–1		Plate, azimuth zero marker. It is made of #13 Ga. cold rolled steel and electro-galvanized (zinc .0005″). Zero and lines are engraved and painted white on a semi-gloss olive drab background. Size is 1¼″ x ¾″ x 3/32″ thick. Special.	Zero index marker plate.	1	P204-182
2	341–1		Spacer, relay mounting. It is made of cold drawn steel, electro-galvanized (zinc .0003″). It is tapped on both ends with a #6-32 thread. Overall size is ¼″ diam. x ¾″ long. (Same as 341-2.) Special.	Relay spacer used on Relay 290-1.	1	P251-145

..	341–2		Same as 341-1.	Relay spacer used on Relay 290-2.	..	....
1	342–1		Spacer, relay mounting. It is made of Le Natural Phenolic and wax impregnated. It is tapped at both ends with a #6-32 thread. Overall size is 5/16″ diam. x 1½″ long. Special.	Relay spacer used on Relay 291-1.	38	P602-182
#1	343–1		Loop Bearing Assembly consists of 2 silver contact brushes and insulators, an aluminum casting, and copper wire braid. Its overall dimensions are 2¾″ x 2¼″ x 4 7/16″. It also includes 2 oilite bearings. Special.	Loop bearing assembly supports the loop commutator assembly.	1	G-1501
#1	344–1		Balance and Volume Control Assembly consists of a 20,000-ohm audio volume control, a 60,000-ohm balance control, a momentary single circuit spring switch, a 25 μf—25-volt electrolytic capacitor, a shaft and center clutch, a front and rear clutch, spring, guide washer and a two-piece mounting bracket. Special.	Sense balance and audio volume control.	1	G-1467
1	345–1		Bracket, front clutch. It is made of #16 Ga. cold rolled steel and electro-galvanized (zinc .0003″). Overall size is 1″ x 2 13/16″ x 1¾″. Special.	Front clutch bracket for balance and volume control assembly.	1	P202-225
1	346–1		Bracket, rear clutch. It is made of #16 Ga. cold rolled steel and electro-galvanized (zinc .0005″). It is L shaped and its overall size is 1″ x 2 11/16″ x 7/16″. Special.	Rear clutch bracket for balance and volume control assembly.	1	P202-226

30. TABLE OF REPLACEABLE PARTS.— b. Radio Receiver BC-1003-B.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
1	347–1		Washer, spring guide. It is made of #26 Ga. cold rolled steel and electro-galvanized (zinc .0005″). It has a ¼″ hole through the center and its overall dimensions are 1⅛″ diam. x ⅛″ thick. Special.	Spring guide washer for balance and volume control assembly.	1	P914-113
1	348–1		Shaft and Center Clutch Assembly for volume control consists of a serrated tooth clutch faced on both sides fitted to a steel rod, ⅛″ diam. x 2 11/16″ long. Special.	Connects front and rear controls and operates spring switch.	1	G-1558
2	349–1		Clutch Gear is made of hard brass. There are 60 serrations .031″ deep x 6° apart around the entire periphery. It has a .1065″ hole through the center. The overall size is ⅝″ diam. x 21/64″ thick. (Same as 349-2.) Special.	Front clutch gear on the balance and volume control assembly.	37	P966-104
..	349–2		Same as 349-1.	Rear clutch gear on the balance and volume control assembly.	..	....
1	350–1		Spring, clutch. It is made of #15 Ga. B. & S. phosphor bronze wire (.057″) spring temper. It consists of 6 turns, with the maximum diameter 1 3/32″ and the minimum diameter 33/64″ and its length is 1 9/16″. Special.	Clutch spring for balance and volume control assembly.	39	P280-145

1	351–1		Pointer is made of brass and chromium plated .0005″ and polished. Overall size is 1¼″ x ½″ x ¼″. Special.	Brass pointer for volume control.	1	P957-103
#1	352–1		Band Switch Assembly consists of a 4-gang ceramic band switch, 2 shield plates, shaft mounting bracket, bevel gear, drive shaft, feed through bushing, 2⅜″ hex nuts and lockwashers, spacer, terminal board; a 15, 35, 40 μμf silver mica capacitors and 3 ceramic feed through insulators. Special.	To switch r-f loop signal to proper coil circuits in receiver.	1	G-1563
2	353–1		Bracket, band switch mounting. It is made of #18 Ga. cold rolled steel and electro-galvanized (zinc .0005″). It is L shaped and its overall dimensions are 2½″ x 2¾″ x 7/16″. (Same as 353-2.) Special.	Front bracket, band switch assembly mounting.	1	P202-233
..	353–2		Same as 353-1.	Rear bracket, band switch assembly mounting.	..	....
1	354–1		Terminal Board is made of Le Natural Phenolic and wax impregnated. It has 6 terminal lugs made of brass and tinned. Its overall dimensions are 5/16″ x 2 1/16″ x 29/64″. Special.	Terminal board for band switch assembly.	29	P610-156
1	355–1		Bevel Gear, large; is made of brass. It has 32 teeth and fits on a ¼″ shaft and is held fast by 2 setscrews. Its hub diameter is 9/16″ and its overall dimensions are 1 1/16″ diameter x 7/16″ thick. Type G481 (Revised).	Large bevel gear for the band switch assembly. It is used with Bevel Gear 356-1.	30	P966-106-1

30. TABLE OF REPLACEABLE PARTS.—b. Radio Receiver BC-1003-B.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
1	356–1		Bevel Gear, small; is made of brass. It has 16 teeth and fits on a ¼" shaft and is held fast by 2 setscrews. Its hub diameter is ⅜" and its overall dimensions are 9/16" x ⅜" thick. Type G481 (Revised).	Small bevel gear for the band switch assembly. It is used with Bevel Gear 355-1.	30	P966-106-2
1	357–1		Shaft, band switch, is made of ¼" diameter cold rolled steel and electro-galvanized (zinc .0002"). It is 4⅜" long with a 11/64" diam. hole through the center. Special.	Shaft for band switch assembly.	1	P263-109
1	358–1		Bracket, band switch; is made of #16 Ga. cold rolled steel and electro-galvanized (zinc .0005"). The overall dimensions are 1⅜" x 1⅞" x 1¾". Special.	Gear mounting bracket for the band switch assembly.	1	P202-222
1	359–1		Bushing, band switch shaft retainer. It is made of cold rolled steel and electro-galvanized (zinc .0002"). It has a .253" hole through the center and it is tapped in 2 places, #6-32 thread. The overall dimensions are ½" diam. x ¼" thick. Special.	Band switch shaft retainer bushing.	1	P250-127

2	360–1		Bushing, band switch; is made of hex brass rod and cadmium plated .0002″. It has a .251″ diam. hole through the center and the overall dimensions are ½″ hex x 7/16″ thick, and 9/32″ of it is threaded with a ⅜″—32 thread. (Same as 360-2.) Special.	Band switch shaft bushing, front.	1	P250-122
..	360–2		Same as 360-1.	Band switch shaft bushing, rear.	..	....
#1	361–1		Oscillator Assembly consists of 4 air trimmers, 1 dual air trimmer, main mounting bracket, 3-band oscillator coil assembly, shunt coil, coil support, spacers, terminal board, socket mount and octal socket, 35,000-ohm resistor, a 50, 160, and 180 μμf silver mica capacitor, a .01 μf moulded paper capacitor, and 10 ceramic insulators. Special.	R-F oscillator stage.	1	G-1470
1	362–1		Shield Cover, oscillator; is made of #20 Ga. B.&S. (.031) 52 S Aluminum and lacquered. There are 2—⅜″ diam. holes on the top. Overall dimensions are 2½″ x 2⅛″ x 4⅛″. Special.	Shield cover for the oscillator.	1	P203-130
1	363–1		Shield, oscillator; is made of #16 Ga. B.&S. (.051) 52 S Aluminum and lacquered. The overall dimensions are 2.039″ x 2 7/16″ x 4 1/16″. Special.	Oscillator mounting shield.	1	P203-129

30. TABLE OF REPLACEABLE PARTS.— b. Radio Receiver BC-1003-B.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
#3	364–1		Terminal Board is made of Le Natural Phenolic and wax impregnated. It has 2—¾" terminal lugs made of brass and tinned. Its overall dimensions are 5/16" x 1 5/8" x 11/16". (Same as 364-2, 364-3.) Special.	Terminal board for oscillator assembly.	29	P610-162
..	364–2		Same as 364-1.	Terminal board for mounting isolating Resistor 201-2.	..	....
..	364–3		Same as 364-1.	Terminal board for mounting isolating Resistor 201-3.	..	....
1	365–1		Bracket, oscillator coil mounting. It is made of #16 Ga. cold rolled steel (.060) and electro-galvanized (zinc .0005"). It has 3—.144" diam. holes through it and its overall dimensions are 3/8" x 1 7/16" x .060". Special.	Oscillator coil mounting bracket.	1	P202-244
2	366–1		Spacer, oscillator coil mounting; is made of Le Natural Phenolic. There is a 6-32 thread tap through the center and the overall dimensions are ¼" diam. x 23/32" long. (Same as 366-2.) Special.	Oscillator coil mounting spacer, front.	33	P602-191

..	366–2		Same as 366-1.	Oscillator coil mounting spacer, rear.	..	....
1	367–1		Plug, oscillator coil mounting; is made of Le Natural Phenolic. There is a 6-32 thread tap through the center and the overall dimensions are .370″ diam. x ¼″ long. Special.	Oscillator coil locator plug.	38	P602-192
1	368–1		Tube Socket Shell is made of steel and zinc plated. Flange is flat on one side and overall dimensions are 2″ x 2 3/16″ x 13/16″. Type ACS.	Tube socket shell for oscillator assembly.	19	P700-130
#1	369–1		Socket, tube. It is made of moulded steatite. It has 8 silver-plated phosphor bronze contacts. Its overall dimensions are 1¼″ diam. x 27/32″ long. 1¼″ retainer ring is also furnished as part of socket. Type #SS8 (Grooved to fit ACS Mount).	Octal tube socket for oscillator assembly.	19	P700-131-1
#1	370–1		Screw, oscillator cover; is made of brass. It is a standard 6-32 Fil. head machine screw with ¼″ undercut and 3/16″ threaded. The overall dimensions are 7/32″ diam. x 37/64″ long. Special.	Captive screw for oscillator cover.	1	P1052
2	371–1		Terminal Board is made of flexible bakelite and wax impregnated. It has 2 terminal lugs which are made of brass and hot solder dipped. Its overall dimensions are 1⅛″ x 11/16″ x 7/16″. (Same as 371-2.) Special.	Mounts Resistor 229-1.	28	P610-166-4
..	371–2		Same as 371-1.	Mounts Resistor 229-2.	..	....

30. TABLE OF REPLACEABLE PARTS.— b. Radio Receiver BC-1003-B.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
#3	364–1		Terminal Board is made of Le Natural Phenolic and wax impregnated. It has 2—¾" terminal lugs made of brass and tinned. Its overall dimensions are 5/16" x 1 5/8" x 11/16". (Same as 364-2, 364-3.) Special.	Terminal board for oscillator assembly.	29	P610-162
..	364–2		Same as 364-1.	Terminal board for mounting isolating Resistor 201-2.	..	....
..	364–3		Same as 364-1.	Terminal board for mounting isolating Resistor 201-3.	..	....
1	365–1		Bracket, oscillator coil mounting. It is made of #16 Ga. cold rolled steel (.060) and electro-galvanized (zinc .0005"). It has 3—.144" diam. holes through it and its overall dimensions are 3/8" x 1 7/16" x .060". Special.	Oscillator coil mounting bracket.	1	P202-244
2	366–1		Spacer, oscillator coil mounting; is made of Le Natural Phenolic. There is a 6-32 thread tap through the center and the overall dimensions are ¼" diam. x 23/32" long. (Same as 366-2.) Special.	Oscillator coil mounting spacer, front.	33	P602-191

..	366–2		Same as 366-1.	Oscillator coil mounting spacer, rear.	..	....
1	367–1		Plug, oscillator coil mounting; is made of Le Natural Phenolic. There is a 6-32 thread tap through the center and the overall dimensions are .370″ diam. x ¼″ long. Special.	Oscillator coil locator plug.	38	P602-192
1	368–1		Tube Socket Shell is made of steel and zinc plated. Flange is flat on one side and overall dimensions are 2″ x 2 3/16″ x 13/16″. Type ACS.	Tube socket shell for oscillator assembly.	19	P700-130
#1	369–1		Socket, tube. It is made of moulded steatite. It has 8 silver-plated phosphor bronze contacts. Its overall dimensions are 1¼″ diam. x 27/32″ long. 1¼″ retainer ring is also furnished as part of socket. Type #SS8 (Grooved to fit ACS Mount).	Octal tube socket for oscillator assembly.	19	P700-131-1
#1	370–1		Screw, oscillator cover; is made of brass. It is a standard 6-32 Fil. head machine screw with ¼″ undercut and 3/16″ threaded. The overall dimensions are 7/32″ diam. x 37/64″ long. Special.	Captive screw for oscillator cover.	1	P1052
2	371–1		Terminal Board is made of flexible bakelite and wax impregnated. It has 2 terminal lugs which are made of brass and hot solder dipped. Its overall dimensions are 1⅛″ x 11/16″ x 7/16″. (Same as 371-2.) Special.	Mounts Resistor 229-1.	28	P610-166-4
..	371–2		Same as 371-1.	Mounts Resistor 229-2.	..	....

30. TABLE OF REPLACEABLE PARTS.—b. Radio Receiver BC-1003-B.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
1	372–1		Chassis Shield Assembly is made of #18 Ga. cold rolled steel and electro-galvanized (zinc .0005″). It has 4 spade bolts riveted on. Its overall dimensions are 8¾″ x 3¼″ x 1 11/16″. Special.	Chassis shield assembly shields the beat frequency oscillator circuit from r-f oscillator circuit and provides mounting space for circuit components.	1	G-1530
#18	373–1		Terminal Board is made of Le Natural Phenolic and wax impregnated. It has 4—¾″ terminal lugs which are made of brass and tinned. Its overall dimensions are 1¼″ x ⅞″ x 11/16″. (Same as 373-2, 373-3, 373-4, 373-5, 373-6, 373-7, 373-8, 373-9, 373-10, 373-11, 373-12, 373-13, 373-14, 373-15, 373-16, 373-17, 373-18.) Special.	Terminal board for shield assembly, front left.	29	P610-157
..	373–2		Same as 373-1.	Terminal board for shield assembly, front right.	..	....
..	373–3		Same as 373-1.	Terminal board for shield assembly, rear right.	..	....

..	373–4	Same as 373-1.	Terminal board, bottom of chassis, right side.	..	....
..	373–5	Same as 373-1.	Terminal board, bottom of chassis, right side.	..	....
..	373–6	Same as 373-1.	Terminal board, bottom of chassis, right side.	..	....
..	373–7	Same as 373-1.	Terminal board, bottom of chassis, right side.	..	....
..	373–8	Same as 373-1.	Terminal board, bottom of chassis, right side.	..	....
..	373–9	Same as 373-1.	Terminal board, bottom of chassis, right side.	..	....
..	373–10	Same as 373-1	Terminal board, bottom of chassis, left side.	..	....
..	373–11	Same as 373 1	Terminal board, bottom of chassis, left side.	..	....

30. TABLE OF REPLACEABLE PARTS.— b. Radio Receiver BC-1003-B.—(Cont'd)

Total Quant. in Equip	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
..	373–12		Same as 373-1.	Terminal board, bottom of chassis, left side.	..	....
..	373–13		Same as 373-1.	Terminal board, bottom of chassis, left side.	..	....
..	373–14		Same as 373-1.	Terminal board, bottom of chassis, left side.	..	....
..	373–15		Same as 373-1.	Terminal board, bottom of chassis, left side.	..	....
..	373–16		Same as 373-1.	Terminal board, bottom of chassis, front left.	..	....
..	373–17		Same as 373-1.	Terminal board, bottom of chassis, front right.	..	....
..	373–18		Same as 373-1.	Mounts Resistor 201-4 and Capacitor 266-2.	..	....

#6	374–1		Terminal Board is made of Le Natural Phenolic and wax impregnated. It has 2—¾" bent terminal lugs that are made of brass and tinned. Its overall dimensions are 5/16" x 2 1/16" x 11/16". (Same as 374-2, 374-3, 374-4, 374-5, 374-6.) Special.	Terminal board for shield assembly, left side bracket, rear.	29	P610-159
..	374–2		Same as 374-1.	Terminal board, bottom of chassis, rear left.	..	....
..	374–3		Same as 374-1.	Terminal board, bottom of chassis, rear right.	..	....
..	374–4		Same as 374-1.	Terminal board, bottom of chassis, front left.	..	....
..	374–5		Same as 374-1.	Terminal board, bottom of chassis, front right.	..	....
..	374–6		Same as 374-1.	Mounts microphone current Resistor 221-1.	..	....
#2	375–1		Terminal Board is made of Le Natural Phenolic and wax impregnated. It has 2—¾" bent terminal lugs made of brass and tinned. Its overall dimensions are 5/16" x 2 7/16" x 15/32". (Same as 375-2.) Special.	Terminal board for shield assembly, rear left.	29	P610-160

30. TABLE OF REPLACEABLE PARTS.— b. Radio Receiver BC-1003-B.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
..	375–2		Same as 375-1.	Terminal board for shield assembly, rear right.	..	....
4	376–1		Spacer is made of #20 Ga. seamless steel tubing and electro-galvanized (zinc .0005″). It has a .117 diameter hole through the center. The overall size is 3/16″ diam. x 1/2″ long. (Same as 376-2, 376-3, 376-4.) Special.	Metal spacer on Terminal Board 375-1.	1	P206-115
..	376–2		Same as 376-1.	Metal spacer on Terminal Board 375-1.	..	....
..	376–3		Same as 376-1	Metal spacer on Terminal Board 375-2.	..	....
..	376–4		Same as 376-1.	Metal spacer on Terminal Board 375-2.	..	....
1	377–1		Loop Brush Assembly consists of 6 silver contact brushes and insulators, an aluminum casting, and a brass wiper spring. Its overall size is 2 9/16″ square x 3 1/8″. Special.	Loop brush assembly provides contact between the loop and r-f circuit of the receiver.	1	G-1502

1	378–1		Housing, lower loop mounting; is a secondary aluminum casting. Its overall dimensions are 2⅛″ x 2⅛″ x 2$^{27}/_{32}$″. Special.	Lower loop mounting housing for loop brush assembly.	1	P285-114
1	379–1		Housing, upper loop mounting; is a secondary aluminum casting. It has a ⅛″ flange and its overall dimensions are 2¼″ x 2¾″ x 4$^{11}/_{32}$″. Special.	Upper loop mounting housing for loop brush assembly.	1	P285-115
8	380–1		Contact, silver brush; is made of coin silver. Overall dimensions are .218″ diam. x $^{23}/_{32}$″ long. (Same as 380-2, 380-3, 380-4, 380-5, 380-6, 380-7, 380-8.) Special.	Silver brush contact for loop brush assembly, front.	41	P941-102
..	380–2		Same as 380-1.	Silver brush contact for loop brush assembly, rear.	..	....
..	380–3		Same as 380-1.	Silver brush contact for loop brush assembly, lower left.	..	....
..	380–4		Same as 380-1.	Silver brush contact for loop brush assembly, upper left.	..	....
..	380–5		Same as 380-1.	Silver brush contact for loop brush assembly, lower right.	..	....
..	380–6		Same as 380-1.	Silver brush contact for loop brush assembly, upper right.	..	....

30. TABLE OF REPLACEABLE PARTS.— b. Ra dio Receiver BC-1003-B.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
..	380–7		Same as 380-1.	Silver brush contact, loop bearing, left.	..	....
..	380–8		Same as 380-1.	Silver brush contact, loop bearing, right.	..	....
8	381–1		Spring, silver brush contact; is made of #23 Ga. B.& S. Beryllium Copper (.023″). It consists of 5 turns with an outside diameter of .203″ and 5/16″ long. (Same as 381-2, 381-3, 381-4, 381-5, 381-6, 381-7, 381-8.) Special.	Spring for holding Silver Brush Contact 380-1.	39	P280-137
[illegible]	381–2		Same as 381-1.	Spring for holding Silver Brush Contact 380-2.	..	....
[illegible]	381–3		Same as 381-1.	Spring for holding Silver Brush Contact 380-3.	..	....
[illegible]	381–4		Same as 381-1.	Spring for holding Silver Brush Contact 380-4.	..	....
[illegible]	381–5		Same as 381-1.	Spring for holding Silver Brush Contact 380-5.	..	....

..	381–6	Same as 381-1.	Spring for holding Silver Brush Contact 380-6.	..	....
..	381–7	Same as 381-1.	Spring for holding Silver Brush Contact 380-7.	..	....
..	381–8	Same as 381-1.	Spring for holding Silver Brush Contact 380-8.	..	....
8	382–1	Bushing, silver brush contact; is made of XXXP Natural Phenolic and wax impregnated. It has a hole through the center and one side has a $\frac{3}{8}$"-32 thread for a distance of $\frac{5}{32}$". The overall dimensions are $\frac{7}{16}$" diam. x $\frac{3}{8}$" long. (Same as 382-2, 382-3, 382-4, 382-5, 382-6, 382-7, 382-8.) Special.	Bushing for Silver Brush Contact 380-1.	38	P602-185
..	382–2	Same as 382-1.	Bushing for Silver Brush Contact 380-2.	..	....
..	382–3	Same as 382-1.	Bushing for Silver Brush Contact 380-3.	..	....
..	382–4	Same as 382-1.	Bushing for Silver Brush Contact 380-4.	..	....
..	382–5	Same as 382-1.	Bushing for Silver Brush Contact 380-5.	..	....

30. TABLE OF REPLACEABLE PARTS.— b. Radio Receiver BC-1003-B.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
..	382–6		Same as 382-1.	Bushing for Silver Brush Contact 380-6.	..	....
..	382–7		Same as 382-1.	Bushing for Silver Brush Contact 380-7.	..	....
..	382–8		Same as 382-1.	Bushing for Silver Brush Contact 380-8.	..	...
1	383–1		Insulated Flexible Coupling is made of porcelain, phosphor bronze and nickel-plated brass. It is furnished with four #6-32 setscrews. It has a .251″ diam. hole through the center and its overall size is 1¼″ x 1¼″ x ¾″. Type A.	Insulated flexible coupling is used to couple the gang capacitor to the dial drive.	32	P999-134
1	384–1		Extension Shaft, gang capacitor; is made of cold rolled steel and electro-galvanized (zinc .0003″). Its overall size is .248″ diam. x 1¼″ long. Special.	Gang capacitor extension shaft.	1	P251-169
#1	385–1		Frequency Dial Drive and Dial Face. The dial face which is made of .020″ brass has the A, B, and C bands on it. The dial face is 2¾″ diam. and the dial scale has white letters on a black background. Special.	Frequency dial drive and dial face.	23	P951-115-2

#1	386–1		WESTON Dial Glass and Casing. The dial casing is made of bakelite and has a metal retainer. It has a semi-gloss olive drab finish. In each corner there is a $\frac{11}{64}$" hole. The overall dimensions are $3\frac{1}{4}$" x $3\frac{1}{4}$" x $\frac{1}{2}$". Special.	WESTON dial glass and casing for frequency dial.	1	P952-112
2	387–1		Gasket, neoprene. It is made of $\frac{1}{32}$" sheet neoprene. Its size is $3\frac{13}{32}$" x $3\frac{13}{32}$" (overall) with a $3\frac{1}{8}$" diam. hole in the center. It has a .156" diameter hole in each corner. (Same as 387-2.) Special.	Frequency dial gasket. Used with WESTON Dial Glass and Casing (386-1).	40	P616-126
..	387–2		Same as 387-1.	Meter case gasket. Used on WESTON Meter (302-1) only.	..	....
2	388–1		Ring, steel gasket. It is made of #22 Ga. cold rolled steel (.030) electro-galvanized (zinc .0005"). Outside edge has a semi-gloss olive drab finish. Its size is $3\frac{13}{32}$" x $3\frac{13}{32}$" with a $3\frac{1}{8}$" diam. hole in the center. It has a .156" diam. hole in each corner. (Same as 388-2.) Special.	Frequency dial gasket ring. Used with WESTON Dial Glass and Casing (386-1).	1	P202-251
..	388–2		Same as 388-1.	Meter case gasket ring. Used on WESTON Meter (302-1) only.	..	....

30. TABLE OF REPLACEABLE PARTS.— b. Radio Receiver BC-1003-B.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
3	389–1		Jack Cover, output. It is made of steel and OUTPUT is engraved and painted white on a semi-gloss olive drab background. It contains a 5/8" diam. felt pad. Bottom mounting spring and pin are made of dull black nickel and lacquered. Overall size is 23/32" x 27/32" x 9/32". (Same as 389-2, 389-3.) Special.	Output jack cover, front panel, lower left corner.	23	P721-115-6
..	389–2		Same as 389-1.	Output jack cover, front panel, lower right corner.	..	....
..	389–3		Same as 389-1.	Output jack cover, right side panel, top front.	..	....
1	390–1		Jack Cover, microphone supply. The cover is made of steel and MIC. SUPPLY is engraved and painted white on a semi-gloss olive drab background. It contains a 5/8" diam. felt pad. Bottom mounting spring and pin are made of dull, black nickel and lacquered. Overall size is 23/32" x 27/32" x 9/32". Special.	Microphone supply jack cover, left side panel, top front.	23	P721-115-1

1	391-1		Top Cover Assembly consists of a #18 Ga. cold rolled steel plate 11 5/32" x 13 1/2" long, a brake lock assembly, zero marker plate, loop lock bracket and 4 captive thumbscrews. It has a semi-gloss olive drab finish. Special.	Top cover assembly for receiver.	1	G-1509
#4	392–1		Stud, mounting. It is made of cold rolled steel with a polished chrome finish (.00055"). Its overall size is 1/2" diam. x 1 1/8" long. (Same as 392-2, 392-3, 392-4.) Special.	Stud for mounting bottom cover to mounting plate, left front.	1	P251-159
..	392–2		Same as 392-1.	Stud for mounting bottom cover to mounting plate, right front.	..	....
..	392–3		Same as 392-1.	Stud for mounting bottom cover to mounting plate, left rear.	..	....
..	392–4		Same as 392-1.	Stud for mounting bottom cover to mounting plate, right rear.	..	....
#1	393–1		Terminal Board is made of Le Natural Phenolic and wax impregnated. It has 4—3/4" bent lugs that are of brass and tinned. Its overall dimensions are 27/32" x 2" x 1/2". Special.	Terminal board mounts under Relay 291-1.	29	P610-158

30. TABLE OF REPLACEABLE PARTS.— b. Radio Receiver BC-1003-B.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
#12	394–1		Socket, tube. It is made of mica-filled bakelite. It has 8 silver-plated phosphor bronze contacts. Its overall dimensions are 11/16" x 1 9/32" x 1 3/4". (Same as 394-2, 394-3, 394-4, 394-5, 394-6, 394-7, 394-8, 394-9, 394-10, 394-11, 394-12.) Type #8209.	Tube socket for Tube 294-1.	54	P700-128
..	394–2		Same as 394-1	Tube socket for Tube 294-2.	..	....
..	394–3		Same as 394-1.	Tube socket for Tube 295-1.	..	....
..	394–4		Same as 394-1.	Tube socket for Tube 295-2.	..	....
..	394–5		Same as 394-1	Tube socket for Tube 295-3.	..	....
..	394–6		Same as 394-1.	Tube socket for Tube 295-4.	..	....
..	394–7		Same as 394-1.	Tube socket for Tube 295-5.	..	....
..	394–8		Same as 394-1.	Tube socket for Tube 295-6.	..	....

..	394–9		Same as 394-1.	Tube socket for Tube 296-1.	..	....
..	394–10		Same as 394-1.	Tube socket for Tube 296-2.	..	....
..	394–11		Same as 394-1.	Tube socket for Tube 297-1.	..	....
..	394–12		Same as 394-1.	Tube socket for Tube 298-2.	..	....
#1	395–1		Connector, meter plug. It has a $\frac{3}{4}$″—20-thread for $\frac{5}{32}$″. Its overall dimensions are $1\frac{3}{16}$″ diam. x $\frac{29}{32}$″ long. Type AN3106-14S-2S (female contacts.)	Meter plug connector.	19	P715-119
#2	396–1		Gasket, rubber. It is made of molded black rubber—Durometer 80-85. It is $\frac{7}{32}$″ thick and its overall size is $3\frac{13}{32}$″ x $3\frac{13}{32}$″. It has a 3.171″ diam. hole in the center and a .156″ diam. hole in each corner. (Same as 396-2.) Special.	Meter case gasket. Used on SIMPSON Meter (302-1) only.	1	P616-128
..	396–2		Same as 396-1.	Frequency dial gasket. Used with SIMPSON Dial Glass and Casing (399-1).	..	....

30. TABLE OF REPLACEABLE PARTS.— b. Radio Receiver BC-1003-B.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
2	397–1		Terminal Lug is made of #24 gauge B.&S. (.020) phosphor bronze and hot tin dipped. It fits a #6 screw and its overall size is 5/16" x 13/16" x 1/8". (Same as 397-2.) Type #2108-6.	Grounds gang capacitor to chassis. Left center.	49	P930-177
..	397–2		Same as 397-1.	Grounds gang capacitor to chassis. Right center.	..	....
1	398–1		Terminal Board is made of flexible bakelite and wax impregnated. It has one terminal lug which is made of brass and hot solder dipped. Its overall dimensions are 1 1/16" x 11/16" x 3/8" Special.	Terminal for Capacitor 260-1.	28	P610-166-1
#1	399–1		SIMPSON Dial Glass and Casing. The casing is made of bakelite and has a metal retainer. It has one terminal lug which is made of brass and hot solder dipped. Its overall dimensions are 1 1/16" x 11/16" x 3/8". Special.	SIMPSON dial glass and casing for frequency dial.	53	P952-118

30. TABLE OF REPLACEABLE PARTS.—

c. Dynamotor Unit PE-133-B.—

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
			NOTE: Each Radio Set SCR-503-B contains 2 dynamotor units, one for each receiver. The replaceable parts cover only 1 dynamotor unit.			
#1	400		Dynamotor Unit PE-133-B consists of:—dynamotor filter case, B choke, A choke, r-f choke, 8 μf electrolytic capacitor, 50 μf electrolytic capacitor, Socket SO-69, phenolic socket insulator, Hubbell male socket, choke mounting bracket, 2—.5 μf paper capacitors, and bottom plate with 4 snapslides. Special.	To supply filtered plate current to receivers.	1	G-1520
#2	401–1		Capacitor, .5 μf, 400 w-v. Bathtub, +14% −6% tolerance. Size—$1\frac{13}{16}$" x 1" x $\frac{13}{16}$", two terminals. (Same as 401-2.) Type BA.	Filter A+.	2	P302-128
..	401–2		Same as 401-1.	Filter B+.	..	....
#1	402–1		Capacitor, electrolytic, 50 μf, 25 w-v, tubular. Size—$\frac{21}{32}$" diam. x $1\frac{3}{4}$" long. Type MMS.	Filter A+	2	P301-114
#1	403–1		Capacitor, electrolytic, bathtub, 8 μf, 350 w-v, ±30% tolerance. Size—$2\frac{1}{8}$" x 1" x $1\frac{13}{16}$". Two terminals. Type BE.	Filter B+.	2	P301-113

30. TABLE OF REPLACEABLE PARTS.— c. Dynamotor Unit PE-133-B.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
#1	404–1		Choke, filter; 80 ma. continuous duty, 10 henry, 2300 turns of #34 plain enamel wire in zinc case with black oxidized finish. Two terminals 7/16" apart. Size—1 13/32" x 1 13/32" x 2 1/8". Special.	B+ filter choke.	20	P820-108
#1	405–1		Choke, r-f inductance is 2.85 millihenrys ±10%, d-c resistance 8 ohms ±10%, air core, bakelite form. Overall size—1 1/8" diam. x 1" long. Special.	B+ r-f choke.	6	P510-109
#1	406–1		Choke, A+, pie wound using #12 AWG enameled wire, 6 pies and 10 turns per pie. Overall size—1 1/2" diam. x 1 3/4" long. Special.	A+ choke.	6	P820-109
#1	407–1		Socket SO-69. Made of brass, dull white nickel finish. Overall size—2 3/16" diam. x 13/16" long. Signal Corps Type #SO-69.	Power Cord CD-673-B connector.	16	P720-119
#1	408–1		Socket, steel, 2-wire midget flush base, 10 amps at 250 volts; 15 amps at 125 volts. Overall size—1 5/8" diameter x 15/16" long. Type #7467.	Battery connector.	15	P715-111

*#1	409–1		Brush, dynamotor. It is a low voltage carbon brush marked with a — sign. A pressure spring is also included. The overall size is 3/8" x 1/4" x 1 5/8". The size of the brush is 1/4" x 9/16" x 3/16". Special.	Low voltage dynamotor brush for negative side.	21	P730-101-1
*#1	410–1		Brush, dynamotor. It is a low voltage carbon brush marked with a + sign. A pressure spring is also included. The overall size is 3/8" x 1/4" x 1 5/8". The size of the brush is 1/4" x 9/16" x 3/16". Special.	Low voltage dynamotor brush for positive side.	21	P730-101-2
*#1	411–1		Brush, dynamotor. It is a high voltage carbon brush marked with a — sign. A pressure spring is also included. The overall size is 3/8" x 1/4" x 1 1/2". The size of the brush is 1/4" x 1/2" x 3/32". Special.	High voltage dynamotor brush for negative side.	21	P730-102-1
*#1	412–1		Brush, dynamotor. It is a high voltage carbon brush marked with a + sign. A pressure spring is also included. The overall size is 3/8" x 1/4" x 1 1/2". The size of the brush is 1/4" x 1/2" x 3/32". Special.	High voltage dynamotor brush for positive side.	21	P730-102-2
1	413–1		Dynamotor. Its overall size is 3 7/8" x 3 7/8" x 5 15/16" with a 3/32" mounting base. Its input is 12.2 volts at 3.3 amps and its output is 230 volts at .090 amps. It is made for continuous duty at 4000 rpm. Special.	Dynamotor has 12.2-volt input and 230-volt output.	21	P850-101

30. TABLE OF REPLACEABLE PARTS.— c. Dynamotor Unit PE-133-B.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
1	414–1		Case, dynamotor filter. It is made of #20 Ga. cold rolled steel and electro-galvanized (zinc .0005″). The outside has a black wrinkle finish. The overall dimensions are 5 1/16″ x 4″ x 3 3/16″. Special.	Dynamotor filter case for housing filter.	1	P201-140
1	415–1		Top Cover, dynamotor filter case, is made of #16 Ga. cold rolled steel and electro-galvanized (zinc .0005″). The outside has a black wrinkle finish. It has a 13/32″ diam. hole through the center. Its overall size is 5 3/16″ x 4 3/16″ x 7/16″. Special.	Top cover for the dynamotor filter case.	1	P204-167
1	416–1		Bottom Cover, dynamotor filter case, is made of #16 Ga. cold rolled steel and electro-galvanized (zinc .0005″). It has a black wrinkle finish all over. Its overall dimensions are 6 5/8″ x 4 7/32″ x 7/16″. It has 4 chromium plated, snap slide studs. Special.	Bottom cover for the dynamotor filter case.	1	P204-168
1	417–1		Insulator, receptacle. It is made of Le Black Phenolic and wax impregnated. Its overall size is 2 3/4″ square x 1″ thick. Special.	Receptacle insulator for mounting on Socket 407-1.	1	P602-190

1	418–1		Bracket, choke coil. It is made of #16 Ga. cold rolled steel and electro-galvanized (zinc .0005″). It has 2—.125″ holes. The overall dimensions are $1\frac{13}{32}$″ x $2\frac{7}{16}$″ x $\frac{5}{8}$″. Special.	Bracket for mounting B+ Filter Choke 404-1.	1	P202-201
1	419–1		Pad, rubber. It is made of $\frac{1}{16}$″ commercial rubber with a Holland cloth back. Its size is $1\frac{1}{2}$″ x $\frac{1}{2}$″ x $\frac{1}{16}$″. Special.	Rubber pad for mounting B+ Choke Coil 404-1.	40	P616-124
#1	420–1		Rubber Grommet is made of heat resistant black rubber—55-60. It has a $\frac{5}{16}$″ inside diameter hole and it is grooved to fit $\frac{3}{8}$″ diameter chassis hole. Its outside diameter is $\frac{5}{8}$″. Type 1803.	Insulating grommet fits in center of top cover of the dynamotor filter case.	50	P615-102-7

30. TABLE OF REPLACEABLE PARTS.—

d. Control Unit RM-35-B.—

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
			NOTE: Each Radio Set SCR-503-B contains 2 Control Units RM-35-B, one for each receiver. The replaceable parts cover only 1 control unit.			
1	500		Control Unit RM-35-B consists of:— Case, T-pad, output transformer, line and microphone transformer, 6 jacks, 2 binding posts, 2 toggle switches, knob, 4 mounting studs, and a transformer mounting bracket. Special.	To interconnect receivers and provide variable volume control between headsets.	1	G-1528
#1	501–1		Transformer, line; maximum input to primary —1-watt. Primary, 4000 ohms, consists of 1800 turns of #36 plain enamel wire. The secondary consists of two windings: 30 ohms made of 108 turns of #30 plain enamel wire and 600 ohms consisting of 485 turns of #36 plain enamel wire. It has an iron core and fits in a cold rolled steel case. Overall size— $2\frac{1}{8}''$ x $1\frac{29}{32}''$ x $2\frac{5}{16}''$. Special.	Line + microphone transformer.	20	P810-103

#1	502–1		Transformer, output; power requirements—½-watt. Primary 8000 ohms, consists of 2400 turns of #39 plain enamel wire. Secondary of 4000 ohms has a 250-ohm tap. The coil, from start to tap, consists of 420 turns of #36 plain enamel wire, the balance of the secondary is made of 1200 turns of #39 plain enamel wire. It has an iron core and fits in a zinc case (with black oxidized finish)—1 13/32″ x 1 13/32″ x 1 7/8″. Special.	Output transformer.	20	P805-104
#1	503–1		Potentiometer, T-pad; resistance input—500 ohms, resistance output—500 ohms, ±10% tolerance. Overall size—1¼″ diameter x 2¾″ long. Diameter of shaft—¼″. Signal Corps Type RS-247. I.R.C. Type J977.	Volume control.	17	P430-110
#1	504–1		Switch, toggle; D.P.D.T., 6-amp—125 volts. 15/32″ diameter—32 threads. Overall size—1 1/16″ x 1 5/32″ x 1¾″. Type #8373.	Radio-Radio & Phone switch.	12	P710-131
#1	505–1		Switch, toggle; D.P.S.T., 6-amp—125 volts. 15/32″ diam.—32 threads. Overall size—1 1/16″ x 1 5/32″ x 1¾″. Type #8370.	Radio On Line-Off Line switch.	12	P710-127
#6	506–1		Jack, single contact open, with brass bushing and insulating washers, fits in ⅜″ mounting hole; 1¼″ long. (Same as 506-2, 506-3, 506-4, 506-5, 506-6.) Signal Corps Type JK34A.	Phone jack.	10	P721-114-2
..	506–2		Same as 506-1.	Phone jack.	..	....

30. TABLE OF REPLACEABLE PARTS.— d. Control Unit RM-35-B.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
..	506–3		Same as 506-1.	Line jack.	..	....
..	506–4		Same as 506-1.	Microphone jack.	..	....
..	506–5		Same as 506-1.	Microphone supply jack.	..	....
..	506–6		Same as 506-1.	Radio Set jack.	..	....
1	507–1		Post, binding. It is made of nickel-plated brass and it has a push type, moulded, black phenolic cap. It has a 6-32 thread and its overall size is ½" diam. x 1 19/32" long. L2 is engraved on it. Special.	Line connection.	1	P620-106-2
1	508–1		Post, binding. It is made of nickel-plated brass and it has a push type, moulded, black phenolic cap. It has a 6-32 thread and its overall size is ½" diam. x 1 19/32" long. L1 is engraved on it. Special.	Line connection.	1	P620-106-1
4	509–1		Washer, binding post. It is made of isolantite. It has a .147" diam. hole through the center as well as a .070" hole through it. Its overall size is 9/16" diam. x 7/32" thick. (Same as 509-2, 509-3, 509-4.) Special.	Washer is used as an insulator for Binding Post 507-1, front.	26	P250-106

..	509–2		Same as 509-1.	Washer is used as an insulator for Binding Post 507-1, rear.	..	....
..	509–3		Same as 509-1.	Washer is used as an insulator for Binding Post 508-1, front.	..	....
..	509–4		Same as 509-1.	Washer is used as an insulator for Binding Post 508-2, rear.	..	....
1	510–1		Escutcheon, Radio On Line-Off Line switch. RADIO ON LINE-OFF LINE is engraved and painted white on a semi-gloss olive drab background. Its size is 1″ diam. x 1/16″ thick and it is made of cold rolled steel. It has a 31/64″ hole through the center. Special.	Radio On Line-Off Line switch escutcheon.	23	P953-163-13
1	511–1		Escutcheon, Radio-Radio and Phone switch. RADIO-RADIO & PHONE is engraved and painted white on a semi-gloss olive drab background. Its size is 1″ diam. x 1/16″ thick and it is made of cold rolled steel. It has a 31/32″ hole through the center. Special.	Radio-Radio & Phone switch escutcheon.	23	P953-163-12
2	512–1		Jack Cover, phone. The cover is made of steel and PHONE is engraved and painted white on a semi-gloss olive drab background. Bottom mounting spring and pin are made of dull black nickel and lacquered. Overall size is 23/32″ x 27/32″ x 9/32″. (Same as 512-2.) Special.	Phone jack cover, front panel, left.	23	P721-115-4

30. TABLE OF REPLACEABLE PARTS.— d. Control Unit RM-35-B.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
..	512–2		Same as 512-1.	Phone jack cover, front panel, right.	..	....
1	513–1		Jack Cover, microphone supply. The cover is made of steel and MIC. SUPPLY, is engraved and painted white on a semi-gloss olive drab background. Bottom mounting spring and pin are made of dull black nickel and lacquered. Overall size is $^{23}/_{32}$" x $^{27}/_{32}$" x $^{9}/_{32}$" Special.	Microphone supply jack cover, left side panel, top.	23	P721-115-1
1	514–1		Jack Cover, microphone. The cover is made of steel and MICROPHONE is engraved and painted white on a semi-gloss olive drab background. Bottom mounting spring and pin are made of dull black nickel and lacquered. Overall size is $^{23}/_{32}$" x $^{27}/_{32}$" x $^{9}/_{32}$". Special.	Microphone jack cover, left side panel, bottom.	23	P721-115-5
1	515–1		Jack Cover, line. The cover is made of steel and LINE is engraved and painted white on a semi-gloss olive drab background. Bottom mounting spring and pin are made of dull black nickel and lacquered. Overall size is $^{23}/_{32}$" x $^{27}/_{32}$" x $^{9}/_{32}$". Special.	Line jack cover, right side panel, bottom.	23	P721-115-3

1	516–1		Jack Cover, radio set. The cover is made of steel and RADIO SET is engraved and painted white on a semi-gloss olive drab background. Bottom mounting spring and pin are made of dull black nickel and lacquered. Overall size is 23/32" x 27/32" x 9/32". Special.	Radio Set jack cover, right side panel, top.	23	P721-115-2
1	517–1		Knob, audio. It is engraved with a 3/4" white arrow on the face as well as word AUDIO. Overall dimensions are 1 1/8" diameter x 5/8" long. Material is brass and the edge is knurled. Fits on 1/4" shaft and is held fast by 2 setscrews. It has a semi-gloss olive drab finish. Special.	Audio control knob, front panel, center.	1	P950-127-3
1	518–1		Case, control unit. It is made of #16 Ga. and #18 Ga. cold rolled steel and electro-galvanized (zinc .0005"). The outside and back edge have a semi-gloss olive drab finish. The overall dimensions are 7 1/4" x 2 5/8" x 2 3/4". Special.	Control Unit case for housing Control Unit RM-35-B.	1	P201-141
1	519–1		Cover, control unit. It is made of #18 Ga. cold rolled steel and electro-galvanized (zinc .0005"). It has a semi-gloss olive drab finish and its overall dimensions are 7 1/4" x 2 3/4" x .047". Special.	Cover for Control Unit RM-35-B.	1	P204-172

30. TABLE OF REPLACEABLE PARTS.— d. Control Unit RM-35-B.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
1	520–1		Bracket, transformer mounting. It is L shaped and is made of #16 Ga. cold rolled steel which is electro-galvanized (zinc .0005″). The overall dimensions are 1 13/32″ x 1 15/32″ x .060″. Special.	Mounting bracket for Transformer 502-1.	1	P202-245
#4	521–1		Mounting Stud, control unit. It is made of hex. cold drawn steel and it has a polished chrome finish, .00055″. Its overall size is 3/8″ hex. x 13/32″ long. (Same as 521-2, 521-3, 521-4.) Special.	Mounting stud for top of control unit, left front.	1	P251-168
..	521–2		Same as 521-1.	Mounting stud for top of control unit, right front.	..	....
..	521–3		Same as 521-1.	Mounting stud for top of control unit, left rear.	..	....
..	521–4		Same as 521-1.	Mounting stud for top of control unit, right rear.	..	....
1	522–1		Insulator, cover. It is made of 1/64″ Neoprene Asbestos. Its overall dimensions are 7 5/16″ x 2 13/16″ x 1/64″. Special.	Insulator for Cover 519-1.	40	P602-196

1	523–1		Resistor, fixed, carbon, axial lead, 730-ohm, ½-watt, ±3% tolerance, ⅝″ x 3/16″ diam. Type I.R.C.	Used with Potentiometer 503-1.	17	
2	524–1		Washer, insulating. It is made of Black Le Phenolic. Its size is 11/16″ diam. x 1/32″ thick and it has a .390″ diam. hole in the center. (Same as 524-2.) Special.	Insulating washer. Fits outside on left PHONE jack, front panel.	38	P911-102-18
..	524–2		Same as 524-1.	Insulating washer. Fits outside on LINE jack, right panel.	..	....
2	525–1		Washer, insulating. It is made of Black XX Phenolic. It has a 1/32″ shoulder and its overall size is ⅝″ diam. x 1/16″. It has a .385″ diam. hole in the center. (Same as 525-2.) Special.	Insulating washer. Fits inside on left PHONE jack, front panel.	38	P911-101-8
..	525–2		Same as 525-1.	Insulating washer. Fits inside on LINE jack, right panel.	..	....

30. TABLE OF REPLACEABLE PARTS.—

e. Miscellaneous Parts.—

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
#2	601–1		Antenna AN-45-F is a telescopic antenna made of Admirality Brass with a double dull chrome plating. It has 2—3/32″ diam. rivets and 5/16″—18 thread, 5/8″ deep, at the base. Extended it is 96½″ long and collapsed it is 16½″ long. (Same as 601-2.) Special.	Antenna AN-45-F is used as a sense antenna and mounts on the Loop LP-23-B of Radio Receiver BC-973-B.	42	P971-101
..	601–2		Same as 601-1.	Antenna AN-45-F is used as a sense antenna and mounts on the Loop LP-33-B of Radio Receiver BC-1003-B.	..	....
#2	602–1		Stud, is made of steel and zinc plated. It is .249″ diam. x 55/64″ long. Threaded 13/32″ x 1/4″ —20 thread. (Same as 602-2.) Special.	Stud for use with scale lock on Radio Receiver BC-973-B.	1	P251-164-2
..	602–2		Same as 602-1.	Stud for use with scale lock on Radio Receiver BC-1003-B.	..	....

2	603–1		Azimuth Scale M-333-B is a secondary aluminum casting. It is engraved and the direct bearing numerals and divisions are painted white and the reciprocal bearing numerals and divisions are painted red. It has a semi-gloss olive drab finish and the overall dimensions are 11″ diam. x 9/16″ high. (Same as 603-2.) Special.	Azimuth scale is used for reading direct and reciprocal bearing on Radio Receiver BC-973-B.	1	P285-112-1
..	603–2		Same as 603-1.	Azimuth scale is used for reading direct and reciprocal bearing on Radio Receiver BC-1003-B.	..	....
2	604–1		Hand-wheel is a secondary aluminum casting. The hand-wheel itself is 5/8″ diameter and the overall size is 9 7/8″ diam. x 1 5/16″. It has a semi-gloss olive drab finish. (Same as 604-2.) Special.	Hand-wheel is used for moving the azimuth scale on Radio Receiver BC-973-B.	1	P285-112-2
..	604–2		Same as 604-1.	Hand-wheel is used for moving the azimuth scale on Radio Receiver BC-1003-B.	..	....
2	605–1		Loop Supporting Plate is made of #16 Ga. C.R.S., 8″ diameter with 2 1/4″ center hole, 5—.281″ diameter holes, and entrance holes for loop lock and scale lock. Mounts on azimuth scale. (Same as 605-2.) Special.	Supports Loop LP-23-B.	1	P204-156

30. TABLE OF REPLACEABLE PARTS.— e. Miscellaneous Parts.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
..	605–2		Same as 605-1	Supports Loop LP-33-B.	..	....
2	606–1		Retainer Ring for loop supporting plate is secured to under side of azimuth scale by 8 screws. Dimensions:—8¾″ O.D., 7⅝″ I.D., #16 gauge C.R.S., zinc plated. (Same as 606-2.) Special.	Secures loop supporting plate to azimuth scale on Radio Receiver BC-973-B.	1	P207-136
▪	606–2		Same as 606-1.	Secures loop supporting plate to azimuth scale on Radio Receiver BC-1003-B.	..	....
2	607–1		Loop Lock Assembly consisting of stud, knob, pin, guide pin bushing, spring nut and washer. Knob is marked LOOP LOCK. (Same as 607-2.) Special.	To lock loop at zero mark on azimuth mounting plate for Radio Receiver BC-973-B	1	G-1510
..	607–2		Same as 607-1.	To lock loop at zero mark on azimuth mounting plate for Radio Receiver BC-1003-B.	..	....

2	608–1		Scale Lock Assembly, consisting of knob marked SCALE LOCK, stud and pin, bushing, locking plate, washer spacer, and C washer. (Same as 608-2.) Special.	To lock azimuth scale at any position of rotation on Radio Receiver BC-973-B.	1	G-1508
..	608–2		Same as 608-1.	To lock azimuth scale at any position of rotation on Radio Receiver BC-1003-B.	..	....
*#2	609–1		Willard 12-volt Storage Battery. Overall dimensions—13″ long, 7 1/16″ wide, and 10 3/16″ high. Electrical rating:— 68-amp hours at 20-hour rate. (Same as 609-2.) Type RH-9-6.	Supplies power for Dynamotor PE-133-B and filament current to Radio Receiver BC-973-B.	43	P972-101
..	609–2		Same as 609-1.	Supplies power for Dynamotor PE-133-B and filament current to Radio Receiver BC-1003-B.	..	....
2	610–1		Battery Cable, consisting of:—2 ft. of #14 stranded wire, red; 1 ft. of #14 stranded wire, black; a Twistlock connector plug, a fuse retainer cartridge, 15-amp fuse and 2 battery lugs. (Same as 610-2.) Special.	Cable for connecting dynamotor to storage battery for Radio Receiver BC-973-B.	1	G-1538
..	610–2		Same as 610-1.	Cable for connecting dynamotor to storage battery for Radio Receiver BC-1003-B.	..	....

30. TABLE OF REPLACEABLE PARTS.— e. Miscellaneous Parts.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
4	611–1		Battery Lug. Lead coated copper, 9/16" x 1 3/8" long with 11/32" slot. (Same as 611-2, 611-3, 611-4.)	To connect battery cable to storage battery +, for Radio Receiver BC-973-B.	44	P930-161
	611–2		Same as 611-1.	To connect battery cable to storage battery −, for Radio Receiver BC-973-B.	..	....
..	611–3		Same as 611-1.	To connect battery cable to storage battery +, for Radio Receiver BC-1003-B.	..	....
..	611–4		Same as 611-1.	To connect battery cable to storage battery −, for Radio Receiver BC-1003-B.	..	....
#2	612–1		Cartridge, fuse holder, is 31/64" diam. x 2½" long. (Same as 612-2.) Littelfuse Type 1089-ZA.	Retains 15-amp 3-AG fuse for Radio Receiver BC-973-B.	45	P722-109
..	612–2		Same as 612-1.	Retains 15-amp 3-AG fuse for Radio Receiver BC-1003-B.	..	....

#2	613–1		Hubbell Connector Plug, female, polarized, 2-wire, 15-amp with cable clamp. The overall dimensions are 1″ diam. x 1 17/32″ long. (Same as 613-2.) Type #7464 polarized female base Twistlock.	To connect battery cable to dynamotor for Radio Receiver BC-973-B.	15	P720-120
..	613–2		Same as 613-1.	To connect battery cable to dynamotor for Radio Receiver BC-1003-B.	..	....
*#2	614–1		Fuse, 15-amp, 3AG, 25 volts. 1¼″ long x ¼″ diam. Mounts in cartridge fuse retainer. (Same as 614-2.) Type #1082.	To fuse power supply circuit for Radio Receiver BC-973-B.	45	P723-110
..	614–2		Same as 614-1.	To fuse power supply circuit for Radio Receiver BC-1003-B.	..	....
#2	615–1		Chest CH-103-B is carrying case for the receiver, Compass MC-323-B, 2 Headsets HS-29-E, Control Unit RM-35-B, spare tube kit, 2 spare pilot lights, Technical Manual TM 11-246B, Microphone T-35, tube puller, Bristol type wrench, and Covers BG-133-B and BG-134-B. It is made of plywood with vulcanized fibre covering. The dimensions are 15½″ x 26⅛″ x 16⅛″. (Same as 615-2.) Special.	Carrying case for Radio Receiver BC-973-B.	46	G-1559
..	615–2		Same as 615-1.	Carrying case for Radio Receiver BC-1003-B.	..	....

30. TABLE OF REPLACEABLE PARTS.— e. Miscellaneous Parts.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
#2	616–1		Chest CH-113-B is a carrying case for Dynamotor PE-133-B, Willard Storage Battery RH-9-6, two Tripods LG-15-B, Antenna AN-45-F, Cord CD-673-B, and two spare fuses. Chest is made of plywood with vulcanized fibre covering. Its dimensions are 27⅞" x 23⅞" x 9". (Same as 616-2.) Special.	Carrying case for parts to be used with Radio Receiver BC-973-B.	46	G-1560
..	616–2		Same as 616-1.	Carrying case for parts to be used with Radio Receiver BC-1003-B.	..	....
#2	617–1		Chest CH-139-C is a carrying case for spare Storage Battery RH-9-6, made of plywood with vulcanized fibre covering. Its dimensions are 15" x 12½" x 8¾". (Same as 617-2.) Special.	Carrying case for spare battery for Radio Receiver BC-973-B.	46	G-1561
..	617–2		Same as 617-1.	Carrying case for spare battery for Radio Receiver BC-1003-B.	..	....

2	618–1		Compass MC-323-B is calibrated 0° to 360° counterclockwise, and has front and rear sights. 24-thread reducing bushing, 5/8" to 1/4", for mounting. Declination adjustment is calibrated 60-0-60 minutes. Cardinal markings are N,W,S, and E in clockwise rotation. It has needle locking adjustment and 2 spirit levels. The housing is made of brass and the scales are made of nickel silver. It has a semi-gloss olive drab finish. The overall dimensions are 5 1/8" diam. x 5/8". (Same as 618-2.) Special.	Polar direction indicator for Radio Receiver BC-973-B.	22	P352-101
..	618–2		Same as 618-1.	Polar direction indicator for Radio Receiver BC-1003-B.	..	....
4	619–1		Cord CC-66 is a rubber-jacketed cord 1/4" diam. and 20 3/4" long with a plug in each end. (Same as 619-2, 619-3, 619-4.) Signal Corps Type CC-66.	Connects jack marked OUTPUT on the right side panel of Radio Receiver BC-973-B to jack marked RADIO SET on right side of panel of Control Unit RM-35-B.	Signal Corps.	

30. TABLE OF REPLACEABLE PARTS.— e. Miscellaneous Parts.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
..	619–2		Same as 619-1.	Connects jack marked MIC. SUPPLY on the left side panel of Radio Receiver BC-973-B to jack marked MIC. SUPPLY on left side panel of Control Unit RM-35-B.	..	
..	619–3		Same as 619-1.	Connects jack marked OUTPUT on the right side panel of Radio Receiver BC-1003-B to jack marked RADIO SET on right side panel of Control Unit RM-35-B.	..	
..	619–4		Same as 619-1	Connects jack marked MIC. SUPPLY on the left side panel of Radio Receiver BC-1003-B to jack marked MIC. SUPPLY on the left side panel of Control Unit RM-35-B.	..	

#2	620–1		Cord CD-673-B, consists of 4 strands of #14 stranded wire, shielded and rubber-covered overall, with a Plug PL-89 attached to each end. Overall size is ½″ diam. x 10′ long. (Same as 620-2.) Special.	Connects Radio Receiver BC-973-B to Dynamotor PE-133-B.	1	G-1539 or G-1636
..	620–2		Same as 620-1.	Connects Radio Receiver BC-1003-B to Dynamotor PE-133-B.	..	....
#4	621–1		Plug PL-89 consists of 4 female inserts, jacks, locking ring, and cable clamp. It is made of brass and its overall size is 1⅝″ diam. x 2⅝″. (Same as 621-2, 621-3, 621-4.) Signal Corps Type PL-89.	It is a connector plug and fits on one end of Cord CD-673-B for Radio Receiver BC-973-B.	16	P720-118
..	621–2		Same as 621-1.	It is a connector plug and fits on other end of Cord CD-673-B for Radio Receiver BC-973-B.	..	....
..	621–3		Same as 621-1.	It is a connector plug and fits on one end of Cord CD-673-B for Radio Receiver BC-1003-B.	..	....

30. TABLE OF REPLACEABLE PARTS.— e. Miscellaneous Parts.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
..	619–2		Same as 619-1.	Connects jack marked MIC. SUPPLY on the left side panel of Radio Receiver BC-973-B to jack marked MIC. SUPPLY on left side panel of Control Unit RM-35-B.	..	
..	619–3		Same as 619-1.	Connects jack marked OUTPUT on the right side panel of Radio Receiver BC-1003-B to jack marked RADIO SET on right side panel of Control Unit RM-35-B.	..	
..	619–4		Same as 619-1	Connects jack marked MIC. SUPPLY on the left side panel of Radio Receiver BC-1003-B to jack marked MIC. SUPPLY on the left side panel of Control Unit RM-35-B.	..	

#2	620–1		Cord CD-673-B, consists of 4 strands of #14 stranded wire, shielded and rubber-covered overall, with a Plug PL-89 attached to each end. Overall size is ½″ diam. x 10′ long. (Same as 620-2.) Special.	Connects Radio Receiver BC-973-B to Dynamotor PE-133-B.	1	G-1539 or G-1636
..	620–2		Same as 620-1.	Connects Radio Receiver BC-1003-B to Dynamotor PE-133-B.	..	....
#4	621–1		Plug PL-89 consists of 4 female inserts, jacks, locking ring, and cable clamp. It is made of brass and its overall size is 1⅝″ diam. x 2⅝″. (Same as 621-2, 621-3, 621-4.) Signal Corps Type PL-89.	It is a connector plug and fits on one end of Cord CD-673-B for Radio Receiver BC-973-B.	16	P720-118
..	621–2		Same as 621-1.	It is a connector plug and fits on other end of Cord CD-673-B for Radio Receiver BC-973-B.	..	....
..	621–3		Same as 621-1.	It is a connector plug and fits on one end of Cord CD-673-B for Radio Receiver BC-1003-B.	..	....

30. TABLE OF REPLACEABLE PARTS.— e. Miscellaneous Parts.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
..	619–2		Same as 619-1.	Connects jack marked MIC. SUPPLY on the left side panel of Radio Receiver BC-973-B to jack marked MIC. SUPPLY on left side panel of Control Unit RM-35-B.	..	
..	619–3		Same as 619-1.	Connects jack marked OUTPUT on the right side panel of Radio Receiver BC-1003-B to jack marked RADIO SET on right side panel of Control Unit RM-35-B.	..	
..	619–4		Same as 619-1	Connects jack marked MIC. SUPPLY on the left side panel of Radio Receiver BC-1003-B to jack marked MIC. SUPPLY on the left side panel of Control Unit RM-35-B.	..	

#2	620–1		Cord CD-673-B, consists of 4 strands of #14 stranded wire, shielded and rubber-covered overall, with a Plug PL-89 attached to each end. Overall size is ½″ diam. x 10′ long. (Same as 620-2.) Special.	Connects Radio Receiver BC-973-B to Dynamotor PE-133-B.	1	G-1539 or G-1636
..	620–2		Same as 620-1.	Connects Radio Receiver BC-1003-B to Dynamotor PE-133-B.	..	....
#4	621–1		Plug PL-89 consists of 4 female inserts, jacks, locking ring, and cable clamp. It is made of brass and its overall size is 1⅝″ diam. x 2⅝″. (Same as 621-2, 621-3, 621-4.) Signal Corps Type PL-89.	It is a connector plug and fits on one end of Cord CD-673-B for Radio Receiver BC-973-B.	16	P720-118
..	621–2		Same as 621-1.	It is a connector plug and fits on other end of Cord CD-673-B for Radio Receiver BC-973-B.	..	....
..	621–3		Same as 621-1.	It is a connector plug and fits on one end of Cord CD-673-B for Radio Receiver BC-1003-B.	..	....

30. TABLE OF REPLACEABLE PARTS.— e. Miscellaneous Parts.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
..	619–2		Same as 619-1.	Connects jack marked MIC. SUPPLY on the left side panel of Radio Receiver BC-973-B to jack marked MIC. SUPPLY on left side panel of Control Unit RM-35-B.	..	
..	619–3		Same as 619-1.	Connects jack marked OUTPUT on the right side panel of Radio Receiver BC-1003-B to jack marked RADIO SET on right side panel of Control Unit RM-35-B.	..	
..	619–4		Same as 619-1	Connects jack marked MIC. SUPPLY on the left side panel of Radio Receiver BC-1003-B to jack marked MIC. SUPPLY on the left side panel of Control Unit RM-35-B.	..	

#2	620–1		Cord CD-673-B, consists of 4 strands of #14 stranded wire, shielded and rubber-covered overall, with a Plug PL-89 attached to each end. Overall size is ½″ diam. x 10′ long. (Same as 620-2.) Special.	Connects Radio Receiver BC-973-B to Dynamotor PE-133-B.	1	G-1539 or G-1636
..	620–2		Same as 620-1.	Connects Radio Receiver BC-1003-B to Dynamotor PE-133-B.	..	....
#4	621–1		Plug PL-89 consists of 4 female inserts, jacks, locking ring, and cable clamp. It is made of brass and its overall size is 1⅝″ diam. x 2⅝″. (Same as 621-2, 621-3, 621-4.) Signal Corps Type PL-89.	It is a connector plug and fits on one end of Cord CD-673-B for Radio Receiver BC-973-B.	16	P720-118
..	621–2		Same as 621-1.	It is a connector plug and fits on other end of Cord CD-673-B for Radio Receiver BC-973-B.	..	....
..	621–3		Same as 621-1.	It is a connector plug and fits on one end of Cord CD-673-B for Radio Receiver BC-1003-B.	..	....

30. TABLE OF REPLACEABLE PARTS.— e. Miscellaneous Parts.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
..	621–4		Same as 621-1.	It is a connector plug and fits on other end of Cord CD-673-B for Radio Receiver BC-1003-B.	..	....
2	622–1		Cover BG-133-B is made of pantasote waterproof ducking. Its overall dimensions are 13″ x 16″ x 25″ high. (Same as 622-2.) Special.	It covers loop and Radio Receiver BC-973-B.	46	P999-146
..	622–2		Same as 622-1.	It covers loop and Radio Receiver BC-1003-B.	..	....
2	623–1		Cover BG-134-B is made of plastic film (Vinylite). Its overall dimensions are 26″ diam. x 10¼″ high. (Same as 623-2.) Special.	It is a waterproof cover for loop and azimuth scale on Radio Receiver BC-973-B.	47	P999-148
..	623–2		Same as 623-1.	It is a waterproof cover for loop and azimuth scale on Radio Receiver BC-1003-B.	..	....

2	624–1		Headset HS-29-E, is a lightweight headset consisting of dual headphones, rubber Cords CD-656-E and 2 Plugs PL-55. (Same as 624-2.) Signal Corps Type HS-29-E.	Headphones plug in OUTPUT jacks on front panel of Radio Receiver BC-973-B or in PHONE jacks on front panel of Control Unit RM-35-B.	
"	624–2		Same as 624-1.	Headphones plug in OUTPUT jacks on front panel of Radio Receiver BC-1003-B or in PHONE jacks on front panel of Control Unit RM-35-B.	"
#1	625–1		Loop LP-23-B, consisting of two windings, 4 turns per winding of #18 copper enamel wire, shielded overall; front and rear sights, and stud for mounting Antenna AN-45-F. It has an aluminum housing with a semi-gloss olive drab finish. Overall size is 10¼" x 10¼" x 10 13/32". Special.	To commute r-f signals to Radio Receiver BC-973-B.	1 G-1465
#1	626–1		Loop LP-33-B consisting of two windings, 52 turns per winding of #22 single cotton covered wire, shielded overall; front and rear sights, and stud for mounting Antenna AN-45-F. It has an aluminum housing with a semi-gloss olive drab finish. Overall size is 10¼" x 10¼" x 10 13/32". Special.	To commute r-f signals to Radio Receiver BC-1003-B.	1 G-1466

30. TABLE OF REPLACEABLE PARTS.— e. Miscellaneous Parts.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
..	621–4		Same as 621-1.	It is a connector plug and fits on other end of Cord CD-673-B for Radio Receiver BC-1003-B.	..	....
2	622–1		Cover BG-133-B is made of pantasote waterproof ducking. Its overall dimensions are 13″ x 16″ x 25″ high. (Same as 622-2.) Special.	It covers loop and Radio Receiver BC-973-B.	46	P999-146
..	622–2		Same as 622-1.	It covers loop and Radio Receiver BC-1003-B.	..	....
2	623–1		Cover BG-134-B is made of plastic film (Vinylite). Its overall dimensions are 26″ diam. x 10¼″ high. (Same as 623-2.) Special.	It is a waterproof cover for loop and azimuth scale on Radio Receiver BC-973-B.	47	P999-148
..	623–2		Same as 623-1.	It is a waterproof cover for loop and azimuth scale on Radio Receiver BC-1003-B.	..	....

2	624–1		Headset HS-29-E, is a lightweight headset consisting of dual headphones, rubber Cords CD-656-E and 2 Plugs PL-55. (Same as 624-2.) Signal Corps Type HS-29-E.	Headphones plug in OUTPUT jacks on front panel of Radio Receiver BC-973-B or in PHONE jacks on front panel of Control Unit RM-35-B.	Signal Corps	
..	624–2		Same as 624-1.	Headphones plug in OUTPUT jacks on front panel of Radio Receiver BC-1003-B or in PHONE jacks on front panel of Control Unit RM-35-B.	..	
#1	625–1		Loop LP-23-B, consisting of two windings, 4 turns per winding of #18 copper enamel wire, shielded overall; front and rear sights, and stud for mounting Antenna AN-45-F. It has an aluminum housing with a semi-gloss olive drab finish. Overall size is 10¼" x 10¼" x 10$^{13}/_{32}$". Special.	To commute r-f signals to Radio Receiver BC-973-B.	1	G-1465
#1	626–1		Loop LP-33-B consisting of two windings, 52 turns per winding of #22 single cotton covered wire, shielded overall; front and rear sights, and stud for mounting Antenna AN-45-F. It has an aluminum housing with a semi-gloss olive drab finish. Overall size is 10¼" x 10¼" x 10$^{13}/_{32}$". Special.	To commute r-f signals to Radio Receiver BC-1003-B.	1	G-1466

30. TABLE OF REPLACEABLE PARTS.— e. Miscellaneous Parts.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
2	627–1		Microphone T-35 is a chest type microphone with a carbon button ON-OFF switch and a manually operated ON position which operates when held in that position. (Same as 627-2.) Signal Corps Type T-35.	Transmitter microphone connects to MICROPHONE jack on left side panel of Control Unit RM-35-B and used with Radio Receiver BC-973-B.	Signal Corps	
..	627–2		Same as 627-1.	Transmitter microphone connects to MICROPHONE jack on left side panel of Control Unit RM-35-B and used with Radio Receiver BC-1003-B.	..	
2	628–1		Mounting Plate FT-363-B, has ¼" x 24-thread bushing for attaching to Tripod LG-15-B. Has two lock strips that fasten receiver to plate and two lock strips for fastening control unit to bottom of plate. It is made of #16 Ga. cold rolled steel and has a semi-gloss olive drab finish. (Same as 628-2.) Special.	Mounts Radio Receiver BC-973-B to Tripod LG-15-B.	1	G-1504

	628–2	Same as 628-1.	Mounts Radio Receiver BC-1003-B to Tripod LG-15-B.	..	....	
#4	629–1	Tripod LG-15-B consists of a brass mounting pedestal 5½″ diam. x ¼″ thick with a captive threaded bolt handle extending through ¼″ x 24-thread hole in the pedestal. Three wooden telescopic legs fasten to the pedestal and swing out to a 30° angle. The leg stops are made of brass. The tripod has an olive drab finish. The legs when extended are 39¾″ long and when collapsed are 23″ long. (Same as 629-2, 629-3, 629-4.) Special.	To mount Compass MC-323-B to be used with Radio Receiver BC-973-B.	22	P999-136	
..	629–2	Same as 629-1.	To mount Radio Receiver BC-973-B.	..	....	
..	629–3	Same as 629-1.	To mount Compass MC-323-B to be used with Radio Receiver BC-1003-B.	..	....	
..	629–4	Same as 629-1.	To mount Radio Receiver BC-1003-B.	..	....	
2	630–1	Base Plate Assembly consists of 4 lock slides mounted on steel plate, 6½″ x 4″, and wooden board that screws into Chest CH-113-B. (Same as 630-2.) Special.	For mounting Dynamotor PE-133-B to Chest CH-113-B for Radio Receiver BC-973-B.	1	G-1516	

30. TABLE OF REPLACEABLE PARTS.— c. Miscellaneous Parts.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
..	630–2		Same as 630-1.	For mounting Dynamotor PE-133-B to Chest CH-113-B for Radio Receiver BC-1003-B.	..	....
#2	631–1		Mounting Stud is made of brass and silver plated. It is 13/16" long x 5/16"—18-thread 1/4" x 11/16" counterbore. (Same as 631-2.) Special.	Mounting stud connects Antenna AN-45-F to Loop LP-23-B.	1	P251-141
..	631–2		Same as 631-1.	Mounting stud connects Antenna AN-45-F to Loop LP-33-B.	..	....
#2	632–1		Fuse Holder, 1 5/8" long x 1" wide bakelite base with nickel plated spring clips for mounting 1 1/4" x 1/4" diam. 3AG fuses. (Same as 632-2.) Special.	To mount spare fuses in Chest CH-113-B for Radio Receiver BC-973-B.	45	P722-108
..	632–2		Same as 632-1.	To mount spare fuses in Chest CH-113-B for Radio Receiver BC-1003-B.	..	....

2	633–1		Rear Loop Sight Assembly is made of bakelite with plastic sight vein. Its overall dimensions are 1″ x 2⅜″ x 1/16″. Two brass brackets attach sight to loop housing. Eccentric cam provides alignment. (Same as 633-2.) Special.	Rear sight for aligning Loop LP-23-B, to a fixed marker.	1	G-1524
..	633–2		Same as 633-1.	Rear sight for aligning Loop LP-33-B to a fixed marker.	..	....
2	634–1		Front Loop Sight Assembly is made of bakelite with a plastic sight vein. Its overall dimensions are 1″ x 2⅜″ x 1/16″. Two brass brackets attach sight to loop housing. Eccentric cam provides alignment. (Same as 634-2.) Special.	Front sight for aligning Loop LP-23-B to a fixed marker.	1	G-1525
..	634–2		Same as 634-1.	Front sight for aligning Loop LP-33-B to a fixed marker.	..	....
8	635–1		Loop Shield Insulator is 19/32″ x 7/32″ and has a shoulder cap 5/16″ diam. It is made of Le Natural Phenolic tubing. It has a 5/32″ hole through it. (Same as 635-2, 635-3, 635-4, 635-5, 635-6, 635-7, 635-8.) Special.	Insulates loop housing bolt, left front, on Radio Receiver BC-973-B.	38	P602-163
..	635–2		Same as 635-1.	Insulates loop housing bolt, right front, on Radio Receiver BC-973-B.	..	....

30. TABLE OF REPLACEABLE PARTS.— e. Miscellaneous Parts.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
..	635–3		Same as 635-1.	Insulates loop housing bolt, left rear, on Radio Receiver BC-973-B.	..	....
..	635–4		Same as 635-1	Insulates loop housing bolt, right rear, on Radio Receiver BC-973-B.	..	....
..	635–5		Same as 635-1.	Insulates loop housing bolt, left front, on Radio Receiver BC-1003-B.	..	....
..	635–6		Same as 635-1.	Insulates loop housing bolt, right front, on Radio Receiver BC-1003-B.	..	....
..	635–7		Same as 635-1.	Insulates loop housing bolt, left rear, on Radio Receiver BC-1003-B.	..	....

..	635–8		Same as 635-1.	Insulates loop housing bolt, right rear, on Radio Receiver BC-1003-B.	..	....
2	636–1		Loop Cap is made of Le Natural Phenolic and wax impregnated. It is 1″ x 14-thread x ¼″ with a ¼″ shoulder cap. The overall dimensions are 1⅜″ diam. x ½″. (Same as 636-2.) Special.	Insulates mounting stud for Antenna AN-45-F on Radio Receiver BC-973-B.	38	P602-164
..	636–2		Same as 636-1.	Insulates mounting stud for Antenna AN-45-F on Radio Receiver BC-1003-B.	..	....
#2	637–1		Loop Socket consists of five contacts, 1½″ mounting centers, silver plated lugs, bakelite XXXP wafers reinforced. Its overall size is 1⅞″ x 1 7/16″ x 1 1/16″. (Same as 637-2.) Special.	To connect electrical circuit of loop to loop commutator assembly in Radio Receiver BC-973-B.	28	P700-129
..	637–2		Same as 637-1.	To connect electrical circuit of loop to loop commutator assembly in Radio Receiver BC-1003-B.	..	....
2	638–1		Loop Face Plate is made of #11 Ga. brass and is 4 17/32″ in diam. It has a 1⅛″ diam. center hole and 5 entrance holes as well as 4 mounting holes. (Same as 638-2.) Special.	It mounts Socket 637-1 and loop housing for Radio Receiver BC-973-B.	1	P204-157

30. TABLE OF REPLACEABLE PARTS.— e. Miscellaneous Parts.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
..	635–3		Same as 635-1.	Insulates loop housing bolt, left rear, on Radio Receiver BC-973-B.	..	....
..	635–4		Same as 635-1	Insulates loop housing bolt, right rear, on Radio Receiver BC-973-B.	..	....
..	635–5		Same as 635-1.	Insulates loop housing bolt, left front, on Radio Receiver BC-1003-B.	..	....
..	635–6		Same as 635-1.	Insulates loop housing bolt, right front, on Radio Receiver BC-1003-B.	..	....
..	635–7		Same as 635-1.	Insulates loop housing bolt, left rear, on Radio Receiver BC-1003-B.	..	....

..	635–8		Same as 635-1.	Insulates loop housing bolt, right rear, on Radio Receiver BC-1003-B.	..	....
2	636–1		Loop Cap is made of Le Natural Phenolic and wax impregnated. It is 1″ x 14-thread x ¼″ with a ¼″ shoulder cap. The overall dimensions are 1⅜″ diam. x ½″. (Same as 636-2.) Special.	Insulates mounting stud for Antenna AN-45-F on Radio Receiver BC-973-B.	38	P602-164
..	636–2		Same as 636-1.	Insulates mounting stud for Antenna AN-45-F on Radio Receiver BC-1003-B.	..	....
#2	637–1		Loop Socket consists of five contacts, 1½″ mounting centers, silver plated lugs, bakelite XXXP wafers reinforced. Its overall size is 1⅞″ x 1 7/16″ x 1 1/16″. (Same as 637-2.) Special.	To connect electrical circuit of loop to loop commutator assembly in Radio Receiver BC-973-B.	28	P700-129
..	637–2		Same as 637-1.	To connect electrical circuit of loop to loop commutator assembly in Radio Receiver BC-1003-B.	..	....
2	638–1		Loop Face Plate is made of #11 Ga. brass and is 4 17/32″ in diam. It has a 1⅛″ diam. center hole and 5 entrance holes as well as 4 mounting holes. (Same as 638-2.) Special.	It mounts Socket 637-1 and loop housing for Radio Receiver BC-973-B.	1	P204-157

30. TABLE OF REPLACEABLE PARTS.— e. Miscellaneous Parts.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
..	638–2		Same as 638-1.	It mounts Socket 637-2 and loop housing for Radio Receiver BC-1003-B.	..	....
2	639–1		Loop Zero Setting Stop is made of #16 Ga. x ⅜" brass and electro-galvanized (zinc .0005"). It has 1¼" mounting centers. The overall dimensions are 1 17/32" x ⅜" x 7/32". (Same as 639-2.) Special.	Acts as zero setting stop for Loop LP-23-B.	1	P202-241
..	639–2		Same as 639-1.	Acts as zero setting stop for Loop LP-33-B.	..	....
#2	640–1		Loop Commutator Assembly consists of an aluminum casting, a guide stud, a phenolic assembly with 5 silver contact rings, connected to a 5-contact plug at top of assembly. (Same as 640-2.) Special.	Transfers r-f signals from Loop LP-23-B to Radio Receiver BC-973-B.	1	G-1515
..	640–2		Same as 640-1.	Transfers r-f signals from Loop LP-33-B to Radio Receiver BC-1003-B.	..	....

#2	641–1		Stud for azimuth guide is 15/16" x .265" diam. with 5/16" x 1/4"—28-thread. It is made of steel and satin chrome plated. (Same as 641-2.) Special.	It guides loop and azimuth plate when they are mounted on loop commutator assembly for Radio Receiver BC-973-B	1	P251-143-2
..	641–2		Same as 641-1.	It guides loop and azimuth plate when they are mounted on loop commutator assembly for Radio Receiver BC-1003-B.	..	....
#8	642–1		Capscrew, loop mounting. It is made of cold drawn steel and has a dull black nickel finish (.0003"). It is 1" long x 7/16" diam. (overall). 1/2" of it is threaded with a 1/4"—28-thread. (Same as 642-2, 642-3, 642-4, 642-5, 642-6, 642-7, 642-8.) Special.	Fastens Loop LP-23-B to commutator assembly of Radio Receiver BC-973-B. Front, left.	1	P251-173
..	642–2		Same as 642-1.	Fastens Loop LP-23-B to commutator assembly of Radio Receiver BC-973-B. Front, right.	..	....
..	642–3		Same as 642-1.	Fastens Loop LP-23-B to commutator assembly of Radio Receiver BC-973-B. Rear, left.	..	....

30. TABLE OF REPLACEABLE PARTS.— e. Miscellaneous Parts.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
..	642–4		Same as 642-1.	Fastens Loop LP-23-B to commutator assembly of Radio Receiver BC-973-B. Rear, right.	..	....
..	642–5		Same as 642-1.	Fastens Loop LP-33-B to commutator assembly of Radio Receiver BC-1003-B. Front, left.	..	....
..	642–6		Same as 642-1.	Fastens Loop LP-33-B to commutator assembly of Radio Receiver BC-1003-B. Front, right.	.	....
..	642–7		Same as 642 1	Fastens Loop LP-33-B to commutator assembly of Radio Receiver BC-1003-B. Rear, left.	..	....

..	642–8		Same as 642-1.	Fastens Loop LP-33-B to commutator assembly of Radio Receiver BC-1003-B. Rear, right.	..	....
2	643–1		Bearing Ring is made of #22 Ga C.R.S. and is chromium plated .0005″ and bearing surface is polished. It has a 1 13/16″ hole in the center and four 1/8″ diam. holes spaced 90° apart. Its overall dimensions are 3″ diam. x .031″ thick. (Same as 643-2.) Special.	Acts as a smooth bearing surface for loop commutator on Radio Receiver BC-973-B.	1	P202-243
..	643–2		Same as 643-1.	Acts as a smooth bearing surface for loop commutator on Radio Receiver BC-1003-B.	..	....
2	644–1		5-Contact Plug, 1 1/2″ mounting centers. 5 brass, silver plated prongs mounted on 2″ diam. x 1/8″ Le Phenolic disc, marked L, H, R, L in clockwise rotation. (Same as 644-2.) Special.	Connects loop circuit to commutator assembly for Radio Receiver BC-973-B.	28	P602-169
..	644–2		Same as 644-1.	Connects loop circuit to commutator assembly for Radio Receiver BC-1003-B.	..	....

30. TABLE OF REPLACEABLE PARTS.— e. Miscellaneous Parts.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
..	621–4		Same as 621-1.	It is a connector plug and fits on other end of Cord CD-673-B for Radio Receiver BC-1003-B.	..	....
2	622–1		Cover BG-133-B is made of pantasote waterproof ducking. Its overall dimensions are 13″ x 16″ x 25″ high. (Same as 622-2.) Special.	It covers loop and Radio Receiver BC-973-B.	46	P999-146
..	622–2		Same as 622-1.	It covers loop and Radio Receiver BC-1003-B.	..	....
2	623–1		Cover BG-134-B is made of plastic film (Vinylite). Its overall dimensions are 26″ diam. x 10¼″ high. (Same as 623-2.) Special.	It is a waterproof cover for loop and azimuth scale on Radio Receiver BC-973-B.	47	P999-148
..	623–2		Same as 623-1.	It is a waterproof cover for loop and azimuth scale on Radio Receiver BC-1003-B.	..	....

2	624–1	Headset HS-29-E, is a lightweight headset consisting of dual headphones, rubber Cords CD-656-E and 2 Plugs PL-55. (Same as 624-2.) Signal Corps Type HS-29-E.	Headphones plug in OUTPUT jacks on front panel of Radio Receiver BC-973-B or in PHONE jacks on front panel of Control Unit RM-35-B.		
"	624–2	Same as 624-1.	Headphones plug in OUTPUT jacks on front panel of Radio Receiver BC-1003-B or in PHONE jacks on front panel of Control Unit RM-35-B.	"	
#1	625–1	Loop LP-23-B, consisting of two windings, 4 turns per winding of #18 copper enamel wire, shielded overall; front and rear sights, and stud for mounting Antenna AN-45-F. It has an aluminum housing with a semi-gloss olive drab finish. Overall size is 10¼" x 10¼" x 10$^{13}/_{32}$". Special.	To commute r-f signals to Radio Receiver BC-973-B.	1	G-1465
#1	626–1	Loop LP-33-B consisting of two windings, 52 turns per winding of #22 single cotton covered wire, shielded overall; front and rear sights, and stud for mounting Antenna AN-45-F. It has an aluminum housing with a semi-gloss olive drab finish. Overall size is 10¼" x 10¼" x 10$^{13}/_{32}$". Special.	To commute r-f signals to Radio Receiver BC-1003-B.	1	G-1466

30. TABLE OF REPLACEABLE PARTS.— e. Miscellaneous Parts.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
2	627–1		Microphone T-35 is a chest type microphone with a carbon button ON-OFF switch and a manually operated ON position which operates when held in that position. (Same as 627-2.) Signal Corps Type T-35.	Transmitter microphone connects to MICROPHONE jack on left side panel of Control Unit RM-35-B and used with Radio Receiver BC-973-B.	Signal Corps	
..	627–2		Same as 627-1.	Transmitter microphone connects to MICROPHONE jack on left side panel of Control Unit RM-35-B and used with Radio Receiver BC-1003-B.	..	
2	628–1		Mounting Plate FT-363-B, has ¼″ x 24-thread bushing for attaching to Tripod LG-15-B. Has two lock strips that fasten receiver to plate and two lock strips for fastening control unit to bottom of plate. It is made of #16 Ga. cold rolled steel and has a semi-gloss olive drab finish. (Same as 628-2.) Special.	Mounts Radio Receiver BC-973-B to Tripod LG-15-B.	1	G-1504

	628–2		Same as 628-1.	Mounts Radio Receiver BC-1003-B to Tripod LG-15-B.	..	....
#4	629–1		Tripod LG-15-B consists of a brass mounting pedestal 5½″ diam. x ¼″ thick with a captive threaded bolt handle extending through ¼″ x 24-thread hole in the pedestal. Three wooden telescopic legs fasten to the pedestal and swing out to a 30° angle. The leg stops are made of brass. The tripod has an olive drab finish. The legs when extended are 39¾″ long and when collapsed are 23″ long. (Same as 629-2, 629-3, 629-4.) Special.	To mount Compass MC-323-B to be used with Radio Receiver BC-973-B.	22	P999-136
..	629–2		Same as 629-1.	To mount Radio Receiver BC-973-B.	..	....
..	629–3		Same as 629-1.	To mount Compass MC-323-B to be used with Radio Receiver BC-1003-B.	..	....
..	629–4		Same as 629-1.	To mount Radio Receiver BC-1003-B.	..	....
2	630–1		Base Plate Assembly consists of 4 lock slides mounted on steel plate, 6½″ x 4″, and wooden board that screws into Chest CH-113-B. (Same as 630-2.) Special.	For mounting Dynamotor PE-133-B to Chest CH-113-B for Radio Receiver BC-973-B.	1	G-1516

30. TABLE OF REPLACEABLE PARTS.— e. Miscellaneous Parts.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
..	630–2		Same as 630-1.	For mounting Dynamotor PE-133-B to Chest CH-113-B for Radio Receiver BC-1003-B.	..	....
#2	631–1		Mounting Stud is made of brass and silver plated. It is 13/16" long x 5/16"—18-thread 1/4" x 11/16" counterbore. (Same as 631-2.) Special.	Mounting stud connects Antenna AN-45-F to Loop LP-23-B.	1	P251-141
..	631–2		Same as 631-1.	Mounting stud connects Antenna AN-45-F to Loop LP-33-B.	..	....
#2	632–1		Fuse Holder, 1 5/8" long x 1" wide bakelite base with nickel plated spring clips for mounting 1 1/4" x 1/4" diam. 3AG fuses. (Same as 632-2.) Special.	To mount spare fuses in Chest CH-113-B for Radio Receiver BC-973-B.	45	P722-108
..	632–2		Same as 632-1.	To mount spare fuses in Chest CH-113-B for Radio Receiver BC-1003-B.	..	....

2	633–1		Rear Loop Sight Assembly is made of bakelite with plastic sight vein. Its overall dimensions are 1″ x 2⅜″ x 1/16″. Two brass brackets attach sight to loop housing. Eccentric cam provides alignment. (Same as 633-2.) Special.	Rear sight for aligning Loop LP-23-B, to a fixed marker.	1	G-1524
..	633–2		Same as 633-1.	Rear sight for aligning Loop LP-33-B to a fixed marker.	..	....
2	634–1		Front Loop Sight Assembly is made of bakelite with a plastic sight vein. Its overall dimensions are 1″ x 2⅜″ x 1/16″. Two brass brackets attach sight to loop housing. Eccentric cam provides alignment. (Same as 634-2.) Special.	Front sight for aligning Loop LP-23-B to a fixed marker.	1	G-1525
..	634–2		Same as 634-1.	Front sight for aligning Loop LP-33-B to a fixed marker.	..	....
8	635–1		Loop Shield Insulator is 19/32″ x 7/32″ and has a shoulder cap 5/16″ diam. It is made of Le Natural Phenolic tubing. It has a 5/32″ hole through it. (Same as 635-2, 635-3, 635-4, 635-5, 635-6, 635-7, 635-8.) Special.	Insulates loop housing bolt, left front, on Radio Receiver BC-973-B.	38	P602-163
..	635–2		Same as 635-1.	Insulates loop housing bolt, right front, on Radio Receiver BC-973-B.	..	....

30. TABLE OF REPLACEABLE PARTS.— e. Miscellaneous Parts.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
..	635–3		Same as 635-1.	Insulates loop housing bolt, left rear, on Radio Receiver BC-973-B.	..	....
..	635–4		Same as 635-1	Insulates loop housing bolt, right rear, on Radio Receiver BC-973-B.	..	....
..	635–5		Same as 635-1.	Insulates loop housing bolt, left front, on Radio Receiver BC-1003-B.	..	....
..	635–6		Same as 635-1.	Insulates loop housing bolt, right front, on Radio Receiver BC-1003-B.	..	....
..	635–7		Same as 635-1.	Insulates loop housing bolt, left rear, on Radio Receiver BC-1003-B.	..	....

..	635–8		Same as 635-1.	Insulates loop housing bolt, right rear, on Radio Receiver BC-1003-B.	..	....
2	636–1		Loop Cap is made of Le Natural Phenolic and wax impregnated. It is 1″ x 14-thread x ¼″ with a ¼″ shoulder cap. The overall dimensions are 1⅜″ diam. x ½″. (Same as 636-2.) Special.	Insulates mounting stud for Antenna AN-45-F on Radio Receiver BC-973-B.	38	P602-164
..	636–2		Same as 636-1.	Insulates mounting stud for Antenna AN-45-F on Radio Receiver BC-1003-B.	..	....
#2	637–1		Loop Socket consists of five contacts, 1½″ mounting centers, silver plated lugs, bakelite XXXP wafers reinforced. Its overall size is 1⅞″ x 1⁷⁄₁₆″ x 1¹⁄₁₆″. (Same as 637-2.) Special.	To connect electrical circuit of loop to loop commutator assembly in Radio Receiver BC-973-B.	28	P700-129
..	637–2		Same as 637-1.	To connect electrical circuit of loop to loop commutator assembly in Radio Receiver BC-1003-B.	..	....
2	638–1		Loop Face Plate is made of #11 Ga. brass and is 4¹⁷⁄₃₂″ in diam. It has a 1⅛″ diam. center hole and 5 entrance holes as well as 4 mounting holes. (Same as 638-2.) Special.	It mounts Socket 637-1 and loop housing for Radio Receiver BC-973-B.	1	P204-157

30. TABLE OF REPLACEABLE PARTS.— e. Miscellaneous Parts.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
..	638–2		Same as 638-1.	It mounts Socket 637-2 and loop housing for Radio Receiver BC-1003-B.	..	....
2	639–1		Loop Zero Setting Stop is made of #16 Ga. x 3/8" brass and electro-galvanized (zinc .0005"). It has 1 1/4" mounting centers. The overall dimensions are 1 17/32" x 3/8" x 7/32". (Same as 639-2.) Special.	Acts as zero setting stop for Loop LP-23-B.	1	P202-241
..	639–2		Same as 639-1.	Acts as zero setting stop for Loop LP-33-B.	..	....
#2	640–1		Loop Commutator Assembly consists of an aluminum casting, a guide stud, a phenolic assembly with 5 silver contact rings, connected to a 5-contact plug at top of assembly. (Same as 640-2.) Special.	Transfers r-f signals from Loop LP-23-B to Radio Receiver BC-973-B.	1	G-1515
..	640–2		Same as 640-1.	Transfers r-f signals from Loop LP-33-B to Radio Receiver BC-1003-B.	..	....

#2	641-1		Stud for azimuth guide is 15/16" x .265" diam. with 5/16" x 1/4"—28-thread. It is made of steel and satin chrome plated. (Same as 641-2.) Special.	It guides loop and azimuth plate when they are mounted on loop commutator assembly for Radio Receiver BC-973-B	1	P251-143-2
..	641-2		Same as 641-1.	It guides loop and azimuth plate when they are mounted on loop commutator assembly for Radio Receiver BC-1003-B.	..	....
#8	642-1		Capscrew, loop mounting. It is made of cold drawn steel and has a dull black nickel finish (.0003"). It is 1" long x 7/16" diam. (overall). 1/2" of it is threaded with a 1/4"—28-thread. (Same as 642-2, 642-3, 642-4, 642-5, 642-6, 642-7, 642-8.) Special.	Fastens Loop LP-23-B to commutator assembly of Radio Receiver BC-973-B. Front, left.	1	P251-173
..	642-2		Same as 642-1.	Fastens Loop LP-23-B to commutator assembly of Radio Receiver BC-973-B. Front, right.	..	....
..	642-3		Same as 642-1.	Fastens Loop LP-23-B to commutator assembly of Radio Receiver BC-973-B. Rear, left.	..	....

30. TABLE OF REPLACEABLE PARTS.— e. Miscellaneous Parts.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
..	642–4		Same as 642-1.	Fastens Loop LP-23-B to commutator assembly of Radio Receiver BC-973-B. Rear, right.	..	....
..	642–5		Same as 642-1.	Fastens Loop LP-33-B to commutator assembly of Radio Receiver BC-1003-B. Front, left.	..	....
..	642–6		Same as 642-1.	Fastens Loop LP-33-B to commutator assembly of Radio Receiver BC-1003-B. Front, right.	..	....
..	642–7		Same as 642 1	Fastens Loop LP-33-B to commutator assembly of Radio Receiver BC-1003-B. Rear, left.	..	....

	642–8	Same as 642-1.	Fastens Loop LP-33-B to commutator assembly of Radio Receiver BC-1003-B. Rear, right.	..	....
2	643–1	Bearing Ring is made of #22 Ga C.R.S. and is chromium plated .0005″ and bearing surface is polished. It has a 1 13/16″ hole in the center and four 1/8″ diam. holes spaced 90° apart. Its overall dimensions are 3″ diam. x .031″ thick. (Same as 643-2.) Special.	Acts as a smooth bearing surface for loop commutator on Radio Receiver BC-973-B.	1	P202-243
1	643–2	Same as 643-1.	Acts as a smooth bearing surface for loop commutator on Radio Receiver BC-1003-B.	..	....
2	644–1	5-Contact Plug, 1½″ mounting centers. 5 brass, silver plated prongs mounted on 2″ diam. x 1/8″ Le Phenolic disc, marked L, H, R, L in clockwise rotation. (Same as 644-2.) Special.	Connects loop circuit to commutator assembly for Radio Receiver BC-973-B.	28	P602-169
..	644–2	Same as 644-1.	Connects loop circuit to commutator assembly for Radio Receiver BC-1003-B.	..	....

30. TABLE OF REPLACEABLE PARTS.— e. Miscellaneous Parts.—(Cont'd)

Total Quant. in Equip.	Ref. Symbol	Signal Corps Stock Number	Name of Part and Description	Function	Mfr. Code	Contractor's Drawing or Part No.
#30	645–1		Rubber Grommet is made of black rubber. Its outside diameter is 11/32" and it is grooved to fit 1/4" chassis hole. It has a 1/8" diam. hole through the center. (Same as 645-2.) Type 901.	15 Insulating grommets for Radio Receiver BC-973-B.	48	P615-102-9
..	645–2		Same as 645-1.	15 Insulating grommets for Radio Receiver BC-1003-B.	..	....
#60	646–1		Terminal Lug is made of bronze and tinned. It fits a #6 screw and it has a 3/32" diam. wire hole. Type #2103-6.	Terminal connections for Radio Set SCR-503-B.	49	P930-102-1
4	647–1		Fibre Insulator is 3 9/16" long x 1" wide. It is made of .010 fibre fish paper. (Same as 647-2, 647-3, 647-4.) Special.	Insulates cable wires in Plug PL-89, 621-1.	40	P601-117
..	647–2		Same as 647-1.	Insulates cable wires in Plug PL-89, 621-2.	..	....
..	647–3		Same as 647-1.	Insulates cable wires in Plug PL-89, 621-3.	..	....
..	647–4		Same as 647-1.	Insulates cable wires in Plug PL-89, 621-4.	..	....

2	648–1		Wrench, Bristol. It is made of steel .076″ diam. and is L-shaped. It has 4 flutes and fits a #6 setscrew. Long arm is $1\frac{11}{16}$″ long and short arm is ½″ long. (Same as 648-2.) Type A18223-3.	Setscrew wrench is mounted in cover of Chest CH-103-B for Radio Receiver BC-973-B.	51	P999-117-3
..	648–2		Same as 648-1.	Setscrew wrench is mounted in cover of Chest CH-103-B for Radio Receiver BC-1003-B.	..	....
2	649–1		Tube Puller is made of #16 Ga. C.R.S. and zinc plated. It is U-shaped and its overall size is $4\frac{3}{16}$″ x $1\frac{1}{8}$″ x ¼″. (Same as 649-2.)	To extract tubes from sockets of Radio Receiver BC-973-B. It is mounted in cover of Chest CH-103-B.	52	P999-128
..	649–2		Same as 649-1.	To extract tubes from sockets of Radio Receiver BC-1003-B. It is mounted in cover of chest CH-103-B.	..	....

31. LIST OF MANUFACTURERS.—

Mfr. No.	*Name*	*Street Address*	*City*	*State*
1.	Admiral Corporation	3800 Cortland St.	Chicago 47	Illinois
2.	Industrial Condenser Corporation	1725 W. North Ave.	Chicago 22	Illinois
3.	Micamold Radio Corporation	1087 Flushing St.	Brooklyn 6	New York
4.	Aerovox Corporation		New Bedford	Massachusetts
5.	Speer Resistor Corporation		St. Marys	Pennsylvania
6.	Standard Coil Products Co.	2329 No. Pulaski Rd.	Chicago 39	Illinois
7.	Radio Condenser Company		Camden	New Jersey
8.	American Steel Package Co.		Defiance	Ohio
9.	Clarostat Manufacturing Co.	285 N. Sixth St.	Brooklyn	New York
10.	Chicago Telephone Supply Co.		Elkhart	Indiana
11.	General Electric Company	840 S. Canal St.	Chicago	Illinois
12.	Cutler Hammer, Inc.	324 N. 12th St.	Milwaukee	Wisconsin
13.	Advance Electric Company	1260 W. Second St.	Los Angeles 26	California
14.	Weston Electrical Instrument Corp.		Newark	New Jersey
15.	Harvey Hubbell, Inc.		Bridgeport	Connecticut
16.	A. J. Ulmer	90 Broadway (West)	New York 7	New York
17.	International Resistance Corp	401 N. Broad St.	Philadelphia 8	Pennsylvania
18.	Lord Manufacturing Company		Erie	Pennsylvania
19.	American Phenolic Corporation	1830 S. 54th Street	Cicero 50	Illinois
20.	Standard Transformer Corporation	1500 N. Halsted St.	Chicago 22	Illinois
21.	Pioneer Gen-E-Motor	5841 Dickens Ave.	Chicago	Illinois
22.	W. M. Welch Manufacturing Company	1515 N. Sedgwick Ave.	Chicago	Illinois
23.	Crowe Nameplate & Manufacturing Co.	3701 N. Ravenswood Ave.	Chicago 13	Illinois
24.	Ohmite Manufacturing Co.	4835 Flournoy St.	Chicago 44	Illinois
25.	Oak Manufacturing Company	1260 Clybourn Ave.	Chicago 10	Illinois
26.	American Radio Hardware Company	476 Broadway	New York 13	New York

Mfr. No.	*Name*	*Street Address*	*City*	*State*
27.	Guardian Electric Company	1621 W. Walnut Street	Chicago	Illinois
28.	Cinch Manufacturing Company	2335 West Van Buren St.	Chicago 12	Illinois
29.	Micarta Fabricators, Inc.	5324 N. Ravenswood Ave.	Chicago 40	Illinois
30.	Boston Gear Works		North Quincy	Massachusetts
31.	National Lock Company		Rockford	Illinois
32.	Allen D. Cardwell Mfg. Corp.	81 Prospect St.	Brooklyn	New York
33.	Solar Manufacturing Company		Bayonne	New Jersey
34.	RCA Victor Div. of Radio Corp. of America		Camden	New Jersey
35.	Raytheon Production Corp.	55 Chapel St.	Newton	Massachusetts
36.	Ken-Rad Transmitting Tube Corp.		Owensboro	Kentucky
37.	Argus Manufacturing Company	1134 N. Kilbourn Ave.	Chicago 51	Illinois
38.	Lamicoid Fabricators	3600 Potomac Ave.	Chicago 51	Illinois
39.	Advance Spring Corp.	1749 Carroll Ave.	Chicago 12	Illinois
40.	Felt Products Manufacturing Company	1504 Carroll Ave.	Chicago 7	Illinois
41.	Nicoud Manufacturing Company	1900 No. Kilbourn Ave.	Chicago 39	Illinois
42.	Snyder Manufacturing Company	22nd and Ontario Sts.	Philadelphia 40	Pennsylvania
43.	Willard Storage Battery Company	246 E. 143rd St.	Cleveland 1	Ohio
44.	Ilsco Copper Tube & Products, Inc.	Mariemont	Cincinnati	Ohio
45.	Littelfuse, Inc.	4757 Ravenswood Ave.	Chicago 40	Illinois
46.	Abel & Bach, Inc.		Milwaukee	Wisconsin
47.	Plastic Film Corporation	37 Williams Street	New York 5	New York
48.	Lavelle Rubber Company	424 N. Wood St.	Chicago	Illinois
49.	Shakeproof, Inc.	2501 N. Keeler Ave.	Chicago 39	Illinois
50.	Canfield Rubber Company	Railroad Ave. & Garden St.	Bridgeport	Connecticut
51.	The Bristol Company		Waterbury	Connecticut
52.	The Muter Company	1255 S. Michigan Ave.	Chicago 5	Illinois
53.	Simpson Electric Company	5200-18 W. Kinzie St.	Chicago 44	Illinois
54.	Meissner Manufacturing Company		Mt. Carmel	Illinois

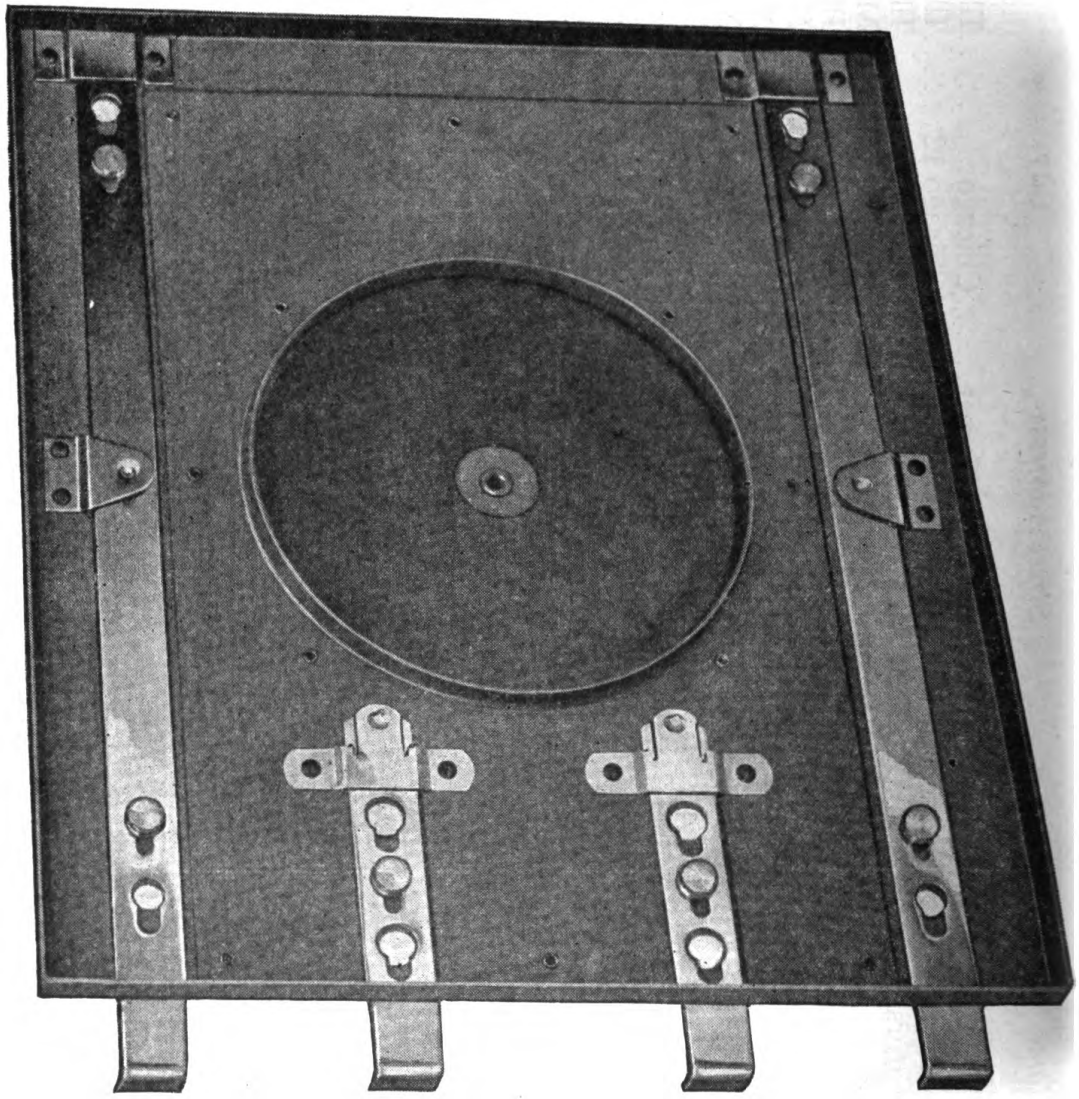


FIGURE 46. Mounting Plate FT-363-B, bottom view.

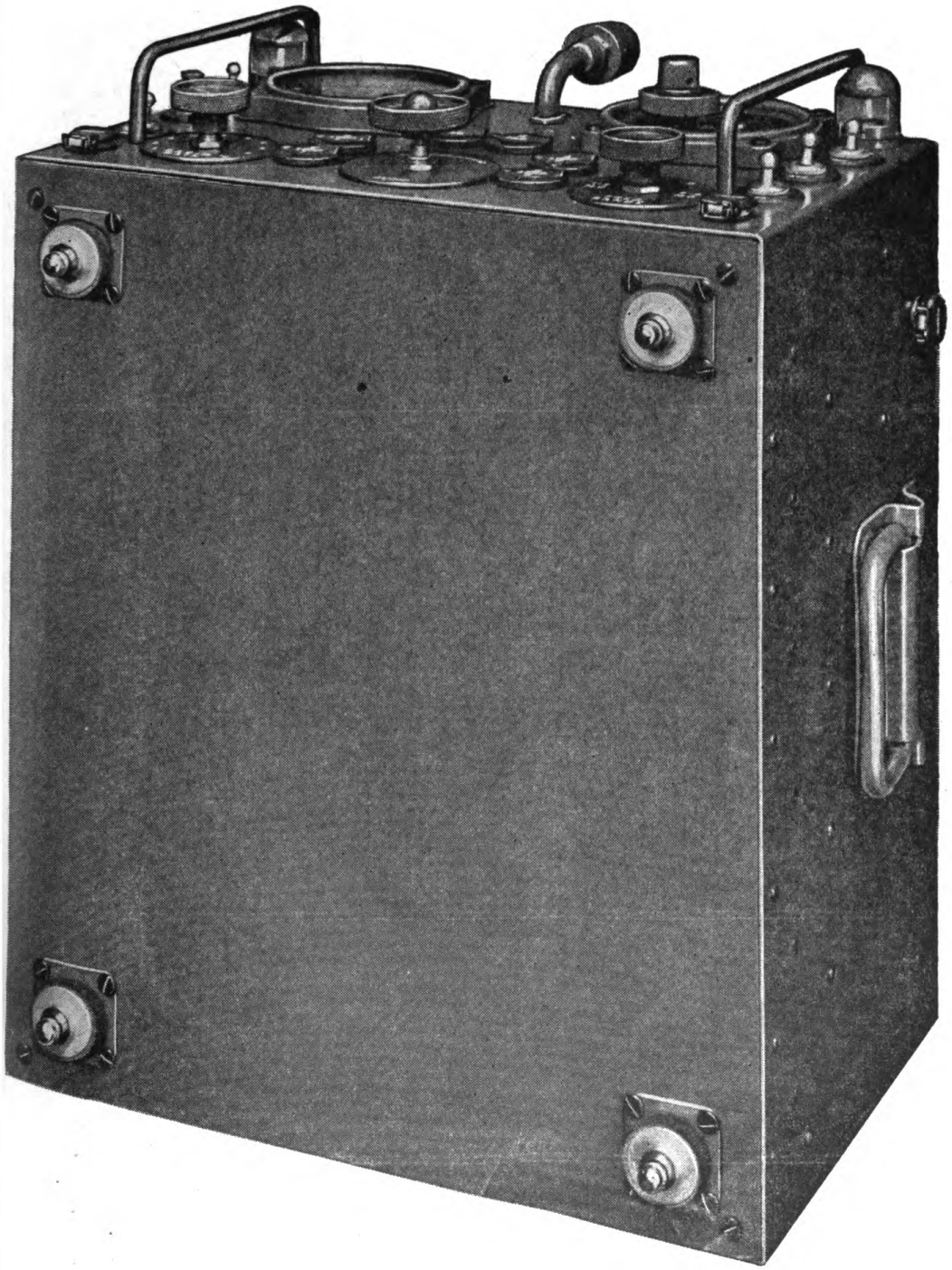


FIGURE 47. Radio Receiver BC-973-B, bottom view showing shock mounts.

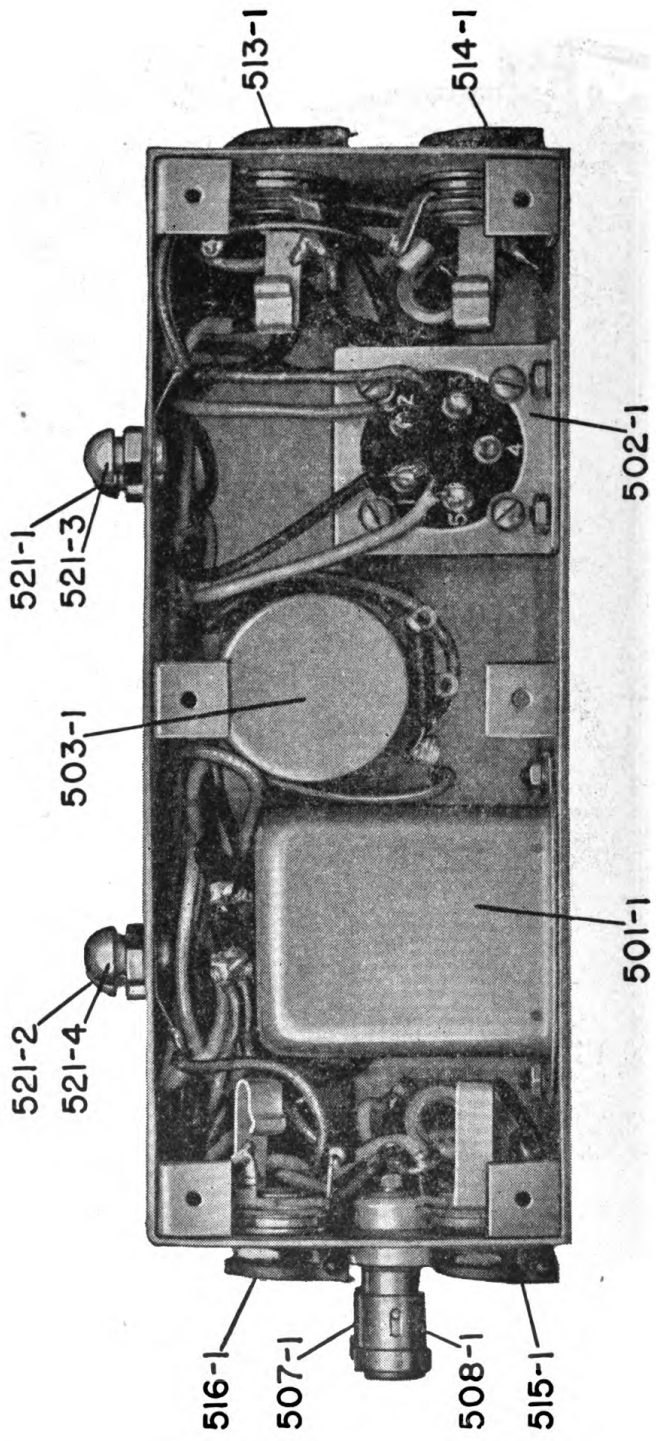


FIGURE 48. Control Unit RM-35-B, bottom view showing wiring.

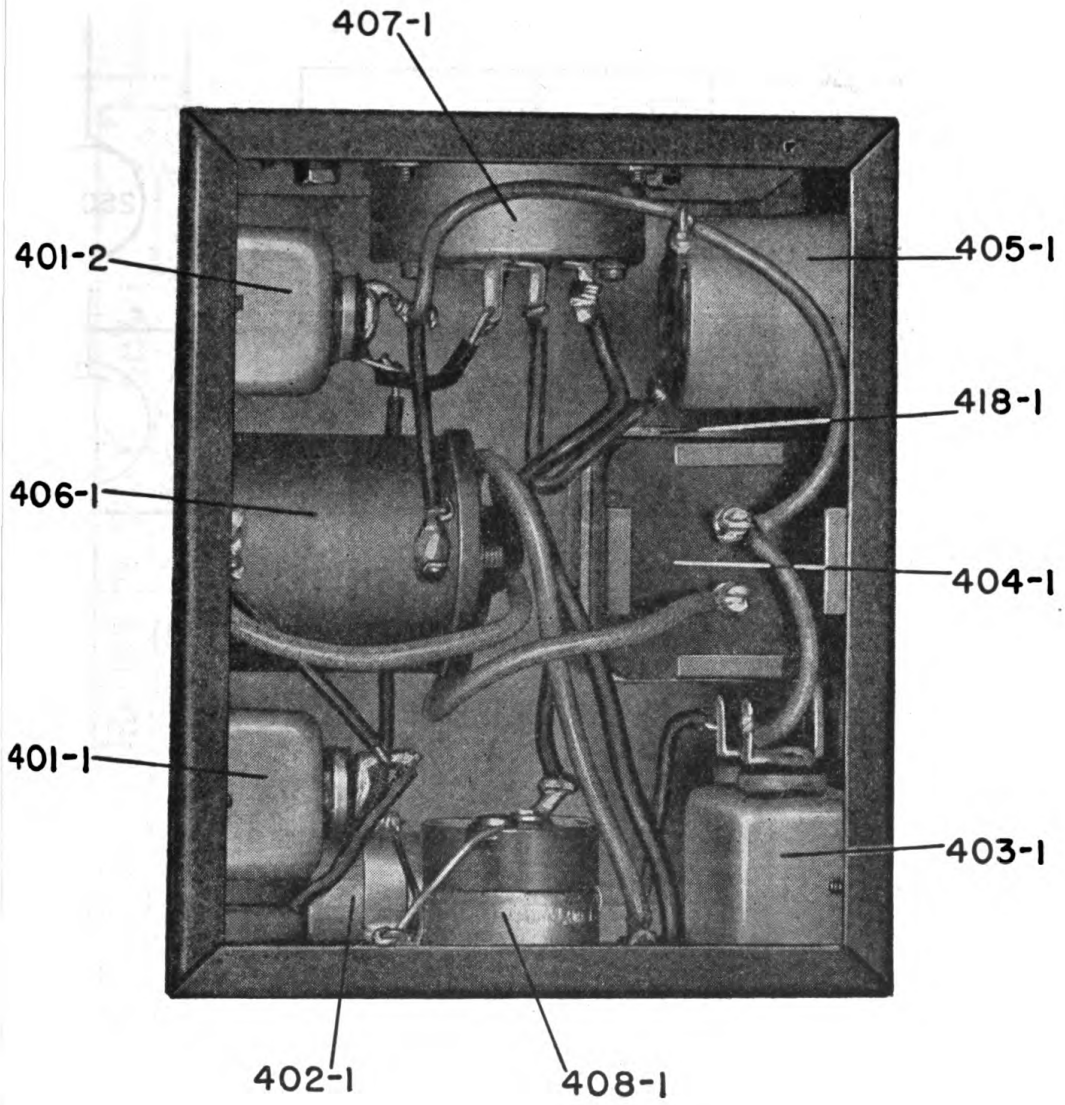
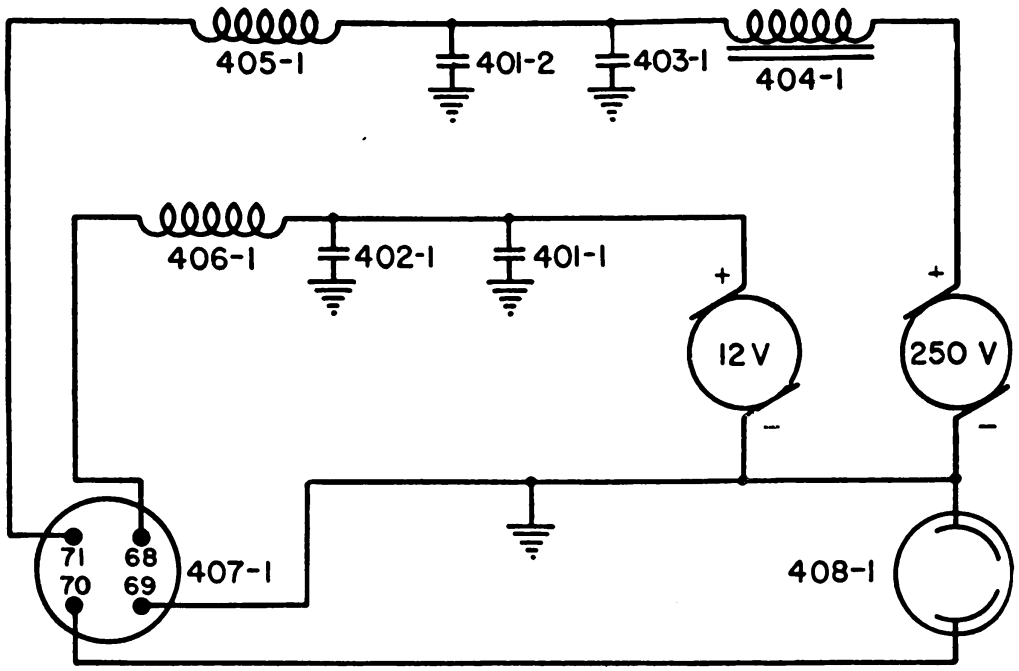


FIGURE 49. Dynamotor Unit PE-133-B, bottom view showing wiring.



DYNAMOTOR & FILTER UNIT (PE-133-B)

CIRCUIT SYMBOL	DESCRIPTION
401-1	.5 MFD. 400 W.V. CAPACITOR
401-2	.5 MFD. 400 W.V. CAPACITOR
402-1	50 MFD. 25 W.V. ELECTROLYTIC
403-1	8 MFD. 400 W.V. ELECTROLYTIC
404-1	B^+ FILTER CHOKE
405-1	B^+ R.F. CHOKE
406-1	A^+ CHOKE
407-1	ULMER SOCKET (SO-69)
408-1	HUBBELL SOCKET

FIGURE 50. Dynamotor Unit PE-133-B, schematic diagram.

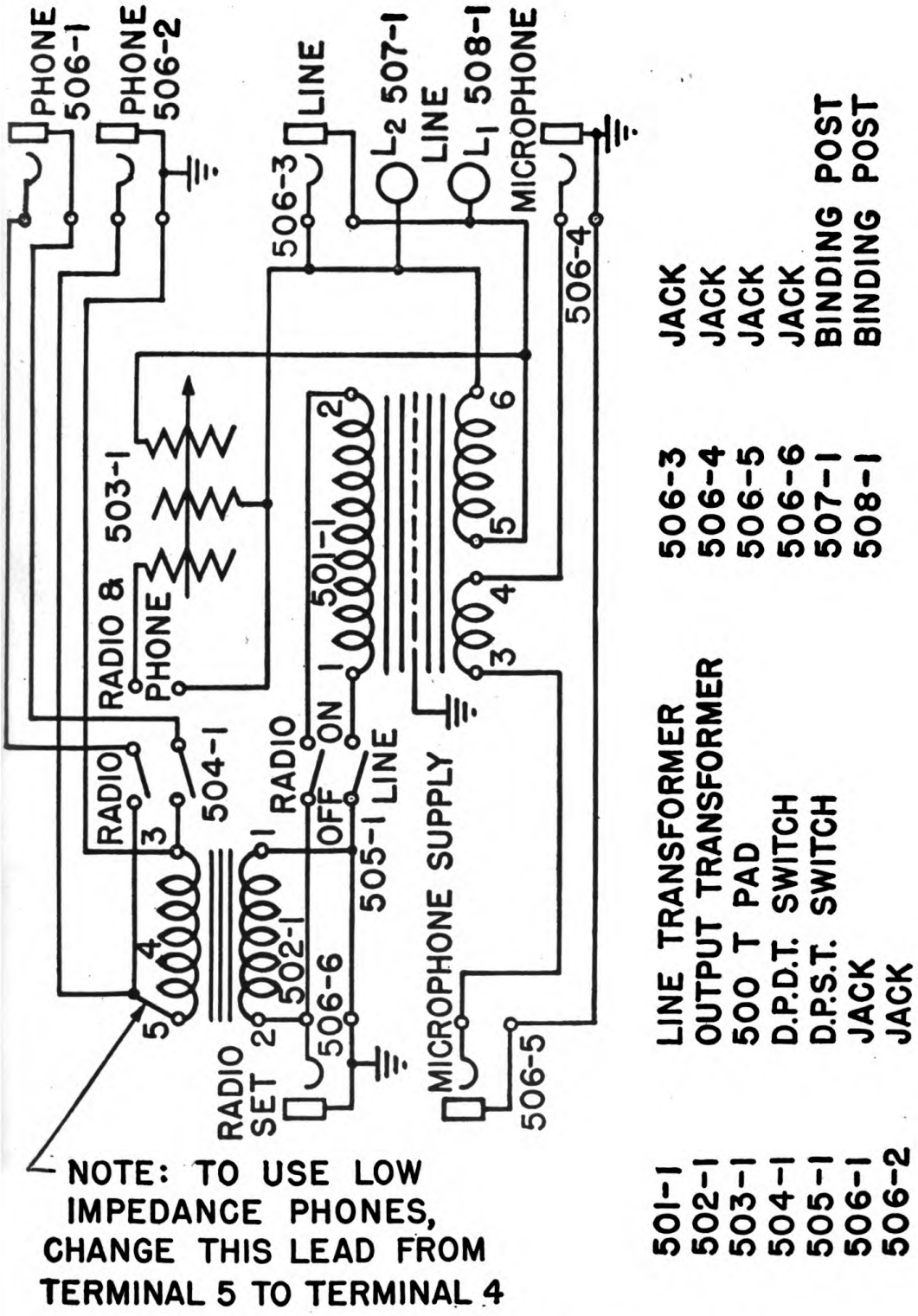


FIGURE 51. Control Unit RM-35-B, schematic diagram.

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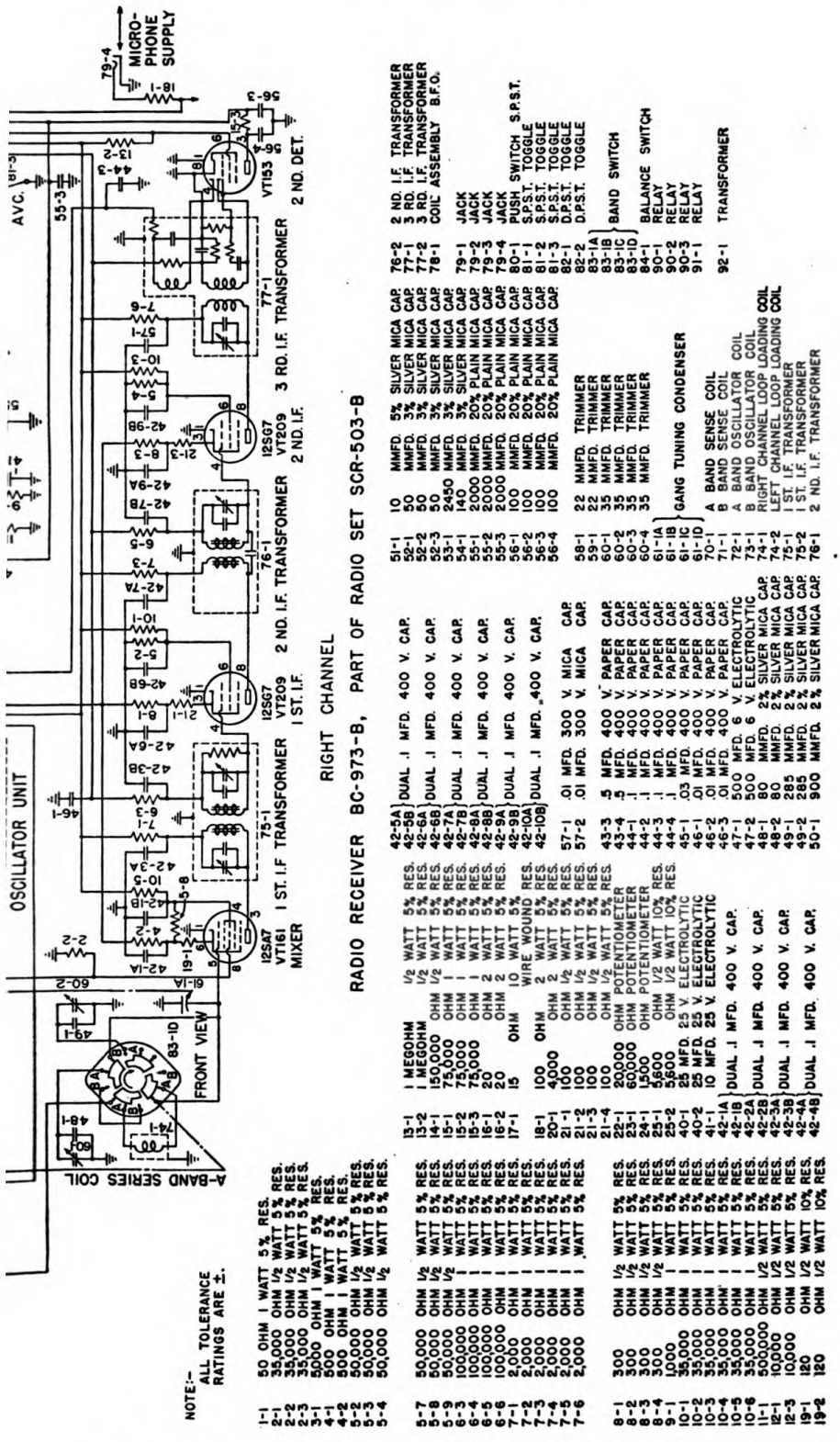
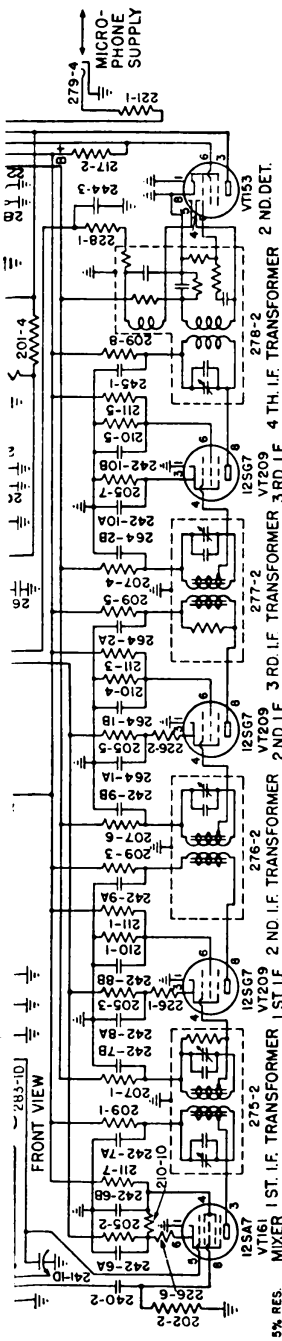


1-1	50 OHM	1	WATT	5%	RES.					
2-1	35,000	OHM	1/2	WATT	5%	RES.				
2-2	35,000	OHM	1/2	WATT	5%	RES.				
3-1	5,000	OHM	1/2	WATT	5%	RES.				
4-1	500	OHM	1	WATT	5%	RES.				
4-2	50,000	OHM	1/2	WATT	5%	RES.				
5-3	50,000	OHM	1/2	WATT	5%	RES.				
5-4	50,000	OHM	1/2	WATT	5%	RES.				
5-7	50,000	OHM	1/2	WATT	5%	RES.	13-1	1 MEGOHM	1/2 WATT	5% RES.
5-8	50,000	OHM	1/2	WATT	5%	RES.	13-2	1 MEGOHM	1/2 WATT	5% RES.
5-9	50,000	OHM	1/2	WATT	5%	RES.	14-1	150,000	OHM 1/2 WATT	5% RES.
6-3	100,000	OHM	1	WATT	5%	RES.	15-1	75,000	OHM 1 WATT	5% RES.
6-4	100,000	OHM	1	WATT	5%	RES.	15-2	75,000	OHM 1 WATT	5% RES.
6-5	100,000	OHM	1	WATT	5%	RES.	15-3	75,000	OHM 1 WATT	5% RES.
6-6	100,000	OHM	1	WATT	5%	RES.	16-1	20	OHM 2 WATT	5% RES.
7-1	2,000	OHM	1	WATT	5%	RES.	16-2	20	OHM 2 WATT	5% RES.
7-2	2,000	OHM	1	WATT	5%	RES.	17-1	15	OHM 10 WATT	5% WIRE WOUND RES.
7-3	2,000	OHM	1	WATT	5%	RES.	18-1	100	OHM 2 WATT	5% RES.
7-4	2,000	OHM	1	WATT	5%	RES.	20-1	4,000	OHM 2 WATT	5% RES.
7-5	2,000	OHM	1	WATT	5%	RES.	21-1	100	OHM 1/2 WATT	5% RES.
7-6	2,000	OHM	1	WATT	5%	RES.	21-2	100	OHM 1/2 WATT	5% RES.
							21-3	100	OHM 1/2 WATT	5% RES.
							21-4	100	OHM 1/2 WATT	5% RES.
8-1	300	OHM	1/2	WATT	5%	RES.	22-1	20000	OHM POTENTIOMETER	
8-2	300	OHM	1/2	WATT	5%	RES.	23-1	60,000	OHM POTENTIOMETER	
8-3	300	OHM	1/2	WATT	5%	RES.	24-1	1,500	OHM POTENTIOMETER	
8-4	300	OHM	1/2	WATT	5%	RES.	25-1	5,600	OHM 1/2 WATT	10% RES.
9-1	1,000	OHM	1	WATT	5%	RES.	25-2	5,600	OHM 1/2 WATT	10% RES.
10-1	35,000	OHM	1	WATT	5%	RES.	40-1	25 MFD.	25 V. ELECTROLYTIC	
10-2	35,000	OHM	1	WATT	5%	RES.	40-2	25 MFD.	25 V. ELECTROLYTIC	
10-3	35,000	OHM	1	WATT	5%	RES.	41-1	10 MFD.	25 V. ELECTROLYTIC	
10-4	35,000	OHM	1	WATT	5%	RES.	42-1A	DUAL .1 MFD.	400 V. CAP.	
10-5	35,000	OHM	1	WATT	5%	RES.	42-1B	DUAL .1 MFD.	400 V. CAP.	
10-6	35,000	OHM	1	WATT	5%	RES.	42-2A	DUAL .1 MFD.	400 V. CAP.	
11-1	500,000	OHM	1/2	WATT	5%	RES.	42-2B	DUAL .1 MFD.	400 V. CAP.	
12-1	10,000	OHM	1/2	WATT	5%	RES.	42-3A	DUAL .1 MFD.	400 V. CAP.	
12-3	10,000	OHM	1/2	WATT	5%	RES.	42-3B	DUAL .1 MFD.	400 V. CAP.	
19-1	120	OHM	1/2	WATT	10%	RES.	42-4A	DUAL .1 MFD.	400 V. CAP.	
19-2	120	OHM	1/2	WATT	10%	RES.	42-4B	DUAL .1 MFD.	400 V. CAP.	
							42-5A	DUAL .1 MFD.	400 V. CAP.	
							42-5B	DUAL .1 MFD.	400 V. CAP.	
							42-6A	DUAL .1 MFD.	400 V. CAP.	
							42-6B	DUAL .1 MFD.	400 V. CAP.	
							42-7A	DUAL .1 MFD.	400 V. CAP.	
							42-7B	DUAL .1 MFD.	400 V. CAP.	
							42-8A	DUAL .1 MFD.	400 V. CAP.	
							42-8B	DUAL .1 MFD.	400 V. CAP.	
							42-9A	DUAL .1 MFD.	400 V. CAP.	
							42-9B	DUAL .1 MFD.	400 V. CAP.	
							42-10A	DUAL .1 MFD.	400 V. CAP.	
							42-10B	DUAL .1 MFD.	400 V. CAP.	
							57-1	.01 MFD.	300 V. MICA	CAP.
							57-2	.01 MFD.	300 V. MICA	CAP.
							43-3	.5 MFD.	400 V. PAPER	CAP.
							43-4	.5 MFD.	400 V. PAPER	CAP.
							44-1	.1 MFD.	400 V. PAPER	CAP.
							44-2	.1 MFD.	400 V. PAPER	CAP.
							44-3	.1 MFD.	400 V. PAPER	CAP.
							44-4	.1 MFD.	400 V. PAPER	CAP.
							45-1	.03 MFD.	400 V. PAPER	CAP.
							46-1	.01 MFD.	400 V. PAPER	CAP.
							46-2	.01 MFD.	400 V. PAPER	CAP.
							46-3	.01 MFD.	400 V. PAPER	CAP.
							47-1	500 MFD.	6 V. ELECTROLYTIC	
							47-2	500 MFD.	6 V. ELECTROLYTIC	
							48-1	80 MMFD.	2% SILVER MICA	CAP.
							48-2	80 MMFD.	2% SILVER MICA	CAP.
							49-1	285 MMFD.	2% SILVER MICA	CAP.
							49-2	285 MMFD.	2% SILVER MICA	CAP.
							50-1	900 MMFD.	2% SILVER MICA	CAP.
							51-1	10 MMFD.	5% SILVER MICA	CAP.
							52-1	50 MMFD.	3% SILVER MICA	CAP.
							52-2	50 MMFD.	3% SILVER MICA	CAP.
							52-3	50 MMFD.	3% SILVER MICA	CAP.
							53-1	2450 MMFD.	3% SILVER MICA	CAP.
							54-1	140 MMFD.	3% SILVER MICA	CAP.
							55-1	2000 MMFD.	20% PLAIN MICA	CAP.
							55-2	2000 MMFD.	20% PLAIN MICA	CAP.
							55-3	2000 MMFD.	20% PLAIN MICA	CAP.
							56-1	100 MMFD.	20% PLAIN MICA	CAP.
							56-2	100 MMFD.	20% PLAIN MICA	CAP.
							56-3	100 MMFD.	20% PLAIN MICA	CAP.
							56-4	100 MMFD.	20% PLAIN MICA	CAP.
							58-1	22 MMFD.	TRIMMER	
							59-1	22 MMFD.	TRIMMER	
							60-1	35 MMFD.	TRIMMER	
							60-2	35 MMFD.	TRIMMER	
							60-3	35 MMFD.	TRIMMER	
							60-4	35 MMFD.	TRIMMER	
							61-1A	GANG TUNING CONDENSER		
							61-1B			
							61-1C			
							61-1D			
							70-1	A BAND SENSE COIL		
							71-1	B BAND SENSE COIL		
							72-1	A BAND OSCILLATOR COIL		
							73-1	B BAND OSCILLATOR COIL		
							74-1	RIGHT CHANNEL LOOP LOADING COIL		
							74-2	LEFT CHANNEL LOOP LOADING COIL		
							75-1	I ST. I.F. TRANSFORMER		
							75-2	I ST. I.F. TRANSFORMER		
							76-1	2 ND. I.F. TRANSFORMER		
							76-2	2 ND. I.F. TRANSFORMER		
							77-1	3 RD. I.F. TRANSFORMER		
							77-2	3 RD. I.F. TRANSFORMER		
							78-1	COIL ASSEMBLY B.F.O.		
							79-1	JACK		
							79-2	JACK		
							79-3	JACK		
							79-4	JACK		
							80-1	PUSH SWITCH S.P.S.T.		
							81-1	S.P.S.T. TOGGLE		
							81-2	S.P.S.T. TOGGLE		
							81-3	S.P.S.T. TOGGLE		
							82-1	D.P.S.T. TOGGLE		
							82-2	D.P.S.T. TOGGLE		
							83-1A	BAND SWITCH		
							83-1B			
							83-1C			
							83-1D			
							84-1	BALANCE SWITCH		
							90-1	RELAY		
							90-2	RELAY		
							90-3	RELAY		
							91-1	RELAY		
							92-1	TRANSFORMER		

FIGURE 52. Radio Receiver BC-973-B, schematic diagram.



201-1	10,000	OHM	1/2	WATT	5%	RES.	241-1A	GANG TUNING CONDENSER	246-6	35	MMFD.	TRIMMER	273-1	A.B. & C. BAND OSC. COIL
201-2	10,000	OHM	1/2	WATT	5%	RES.	241-1B		248-1	100	MMFD.	SILVER MICA 3% CAP.	274-1	LEFT CHANNEL LOOP LOADING COIL
201-3	10,000	OHM	1/2	WATT	5%	RES.	241-1C		248-2	100	MMFD.	SILVER MICA 3% CAP.	274-2	RIGHT CHANNEL LOOP LOADING COIL
201-4	10,000	OHM	1/2	WATT	5%	RES.	241-1D		250-2	22	MMFD.	TRIMMER	275-1	1 ST. I.F. TRANSFORMER
202-1	35,000	OHM	1/2	WATT	5%	RES.	241-1E		250-3	22	MMFD.	TRIMMER	275-2	1 ST. I.F. TRANSFORMER
202-2	35,000	OHM	1/2	WATT	5%	RES.	242-1A	DUAL .1 MFD. 400 V. CAP.	251-1A	26	MMFD.	TRIMMER	276-1	2 ND. I.F. TRANSFORMER
202-3	35,000	OHM	1/2	WATT	5%	RES.	242-1B		251-1B	26	MMFD.	TRIMMER	276-2	2 ND. I.F. TRANSFORMER
203-1	5,000	OHM	1	WATT	5%	RES.	242-2A	DUAL .1 MFD. 400 V. CAP.	252-1	80	MMFD.	SILVER MICA 2% CAP.	277-1	3 RD. I.F. TRANSFORMER
204-1	1,000	OHM	1/2	WATT	5%	RES.	242-2B		252-2	80	MMFD.	SILVER MICA 2% CAP.	277-2	3 RD. I.F. TRANSFORMER
205-1	300	OHM	1/2	WATT	5%	RES.	242-3A	DUAL .1 MFD. 400 V. CAP.	254-1	22	MMFD.	TRIMMER	278-1	4 TH. I.F. TRANSFORMER
205-2	300	OHM	1/2	WATT	5%	RES.	242-3B		254-2	22	MMFD.	TRIMMER	278-2	4 TH. I.F. TRANSFORMER
205-3	300	OHM	1/2	WATT	5%	RES.	242-4A	DUAL .1 MFD. 400 V. CAP.	255-1	160	MMFD.	SILVER MICA 3% CAP.	279-1	JACK
205-4	300	OHM	1/2	WATT	5%	RES.	242-4B		255-2	160	MMFD.	SILVER MICA 3% CAP.	279-2	JACK
205-5	300	OHM	1/2	WATT	5%	RES.	242-5A	DUAL .1 MFD. 400 V. CAP.	256-1	.01	MFD.	400 V. PAPER CAP.	279-3	JACK
205-6	300	OHM	1/2	WATT	5%	RES.	242-5B		256-2	.01	MFD.	400 V. PAPER CAP.	279-4	JACK
205-7	300	OHM	1/2	WATT	5%	RES.	242-6A	DUAL .1 MFD. 400 V. CAP.	258-1	.03	MFD.	400 V. PAPER CAP.		
205-8	300	OHM	1/2	WATT	5%	RES.	242-6B		259-1	10	MFD.	25 V. ELECTROLYTIC	280-1	S.P.S.T. TOGGLE
205-9	300	OHM	1/2	WATT	5%	RES.	242-7A	DUAL .1 MFD. 400 V. CAP.	260-1	300	MMFD.	SILVER MICA 2% CAP.	280-2	S.P.S.T. TOGGLE
206-1	1,000	OHM	1/2	WATT	5%	RES.	242-7B		261-1	500	MFD.	6 V. ELECTROLYTIC	280-3	S.P.S.T. TOGGLE
207-1	100,000	OHM	1	WATT	5%	RES.	242-8A	DUAL .1 MFD. 400 V. CAP.	261-2	500	MFD.	6 V. ELECTROLYTIC	281-1	PUSH SWITCH S.P.S.T.
207-2	100,000	OHM	1	WATT	5%	RES.	242-8B		262-1	105	MMFD.	SILVER MICA 2% CAP.	282-1	D.P.S.T. TOGGLE
207-3	100,000	OHM	1	WATT	5%	RES.	242-9A	DUAL .1 MFD. 400 V. CAP.					282-2	D.P.S.T. TOGGLE
207-4	100,000	OHM	1	WATT	5%	RES.	242-9B							
207-5	100,000	OHM	1	WATT	5%	RES.	242-10A	DUAL .1 MFD. 400 V. CAP.	263-1	25	MFD.	25 V. ELECTROLYTIC	283-1A	BAND SWITCH
207-6	100,000	OHM	1	WATT	5%	RES.	242-10B		264-1A	DUAL .1 MFD. 400 V. CAP.			283-1B	
208-1	100,000	OHM	1/2	WATT	5%	RES.	243-1	.5 MFD. 400 V. CAP.	264-1B				283-1C	
209-1	2,000	OHM	1/2	WATT	5%	RES.	243-2	.5 MFD. 400 V. CAP.	264-2A	DUAL .1 MFD. 400 V. CAP.			283-1D	
209-2	2,000	OHM	1/2	WATT	5%	RES.	244-1	1 MFD. 400 V. PAPER CAP.	264-2B				284-1	BALANCE SWITCH
209-3	2,000	OHM	1/2	WATT	5%	RES.	244-2	1 MFD. 400 V. PAPER CAP.	264-3A	DUAL .1 MFD. 400 V. CAP.			290-1	RELAY
209-4	2,000	OHM	1/2	WATT	5%	RES.	244-3	1 MFD. 400 V. PAPER CAP.	264-3B				290-2	RELAY
209-5	2,000	OHM	1/2	WATT	5%	RES.	244-4	1 MFD. 400 V. PAPER CAP.	264-4A	DUAL .1 MFD. 400 V. CAP.			290-3	RELAY
209-6	2,000	OHM	1/2	WATT	5%	RES.	244-5	1 MFD. 400 V. PAPER CAP.	264-4B				291-1	RELAY
209-7	2,000	OHM	1/2	WATT	5%	RES.	244-6	1 MFD. 400 V. PAPER CAP.	265-1	40	MMFD.	SILVER MICA 3% CAP.	292-1	TRANSFORMER
209-8	2,000	OHM	1/2	WATT	5%	RES.	245-1	.01 MFD. 300 V. MICA CAP.	265-2	2000	MMFD.	20% PLAIN MICA CAP.	293-1	COIL, B F.O.
210-1	50,000	OHM	1/2	WATT	5%	RES.	245-2	.01 MFD. 300 V. MICA CAP.	266-1	2000	MMFD.	20% PLAIN MICA CAP.	294-1	C BAND SHUNT COIL
							246-1	35 MMFD. TRIMMER	266-2	2000	MMFD.	20% PLAIN MICA CAP.		
210-2	50,000	OHM	1/2	WATT	5%	RES.	246-2	35 MMFD. TRIMMER	266-3	2000	MMFD.	20% PLAIN MICA CAP.		
210-3	50,000	OHM	1/2	WATT	10%	RES.	246-3	35 MMFD. TRIMMER	266-4	2000	MMFD.	20% PLAIN MICA CAP.		
210-4	50,000	OHM	1/2	WATT	10%	RES.	246-4	35 MMFD. TRIMMER	270-1	A BAND SENSE COIL				
210-5	50,000	OHM	1/2	WATT	5%	RES.	246-5	35 MMFD. TRIMMER	271-1	B BAND SENSE COIL				
									272-1	C BAND SENSE COIL				

NOTE:- ALL TOLERANCE RATINGS ARE ±.

210-6	50,000	OHM	1/2	WATT	5%	RES.	241-1A	GANG TUNING CONDENSER	246-6	35	MMFD.	TRIMMER	273-1	A.B. & C. BAND OSC. COIL
210-9	50,000	OHM	1/2	WATT	5%	RES.	241-1B		248-1	100	MMFD.	SILVER MICA 3% CAP.	274-1	LEFT CHANNEL LOOP LOADING COIL
210-10	50,000	OHM	1/2	WATT	5%	RES.	241-1C		248-2	100	MMFD.	SILVER MICA 3% CAP.	274-2	RIGHT CHANNEL LOOP LOADING COIL
210-11	35,000	OHM	1/2	WATT	5%	RES.	241-1D		250-2	22	MMFD.	TRIMMER	275-2	1 ST. I.F. TRANSFORMER
211-1	35,000	OHM	1	WATT	5%	RES.	241-1E		250-3	22	MMFD.	TRIMMER	275-1	1 ST. I.F. TRANSFORMER
211-2	35,000	OHM	1	WATT	5%	RES.	242-1B		251-1A	26	MMFD.	TRIMMER	276-1	2 ND. I.F. TRANSFORMER
211-3	35,000	OHM	1	WATT	5%	RES.	242-2A	DUAL .1 MFD. 400 V. CAP.	251-1B	26	MMFD.	TRIMMER	276-2	2 ND. I.F. TRANSFORMER
211-4	35,000	OHM	1	WATT	5%	RES.	242-2B		252-1	80	MMFD.	SILVER MICA 2% CAP.	277-1	3 RD. I.F. TRANSFORMER
211-5	35,000	OHM	1	WATT	5%	RES.	242-3A	DUAL .1 MFD. 400 V. CAP.	252-2	80	MMFD.	SILVER MICA 2% CAP.	277-2	3 RD. I.F. TRANSFORMER
211-6	35,000	OHM	1	WATT	5%	RES.	242-3B		254-1	22	MMFD.	TRIMMER	278-1	4 TH. I.F. TRANSFORMER
211-7	35,000	OHM	1	WATT	5%	RES.	242-4A	DUAL .1 MFD. 400 V. CAP.	254-2	22	MMFD.	TRIMMER	278-2	4 TH. I.F. TRANSFORMER
211-8	35,000	OHM	1	WATT	5%	RES.	242-4B		255-1	160	MMFD.	SILVER MICA 3% CAP.	279-1	JACK
212-1	20,000	OHM	2	WATT	5%	RES.	242-5A	DUAL .1 MFD. 400 V. CAP.	255-2	160	MMFD.	SILVER MICA 3% CAP.	279-2	JACK
							242-5B		256-1	.01	MFD.	400 V. PAPER CAP.	279-3	JACK
213-1	1500	OHM	POTENTIOMETER				242-6A	DUAL .1 MFD. 400 V. CAP.	256-2	.01	MFD.	400 V. PAPER CAP.	279-4	JACK
214-1	60,000	OHM	POTENTIOMETER				242-6B		258-1	.03	MFD.	400 V. PAPER CAP.		
216-1	500,000	OHM	1/2	WATT	5%	RES.	242-7A	DUAL .1 MFD. 400 V. CAP.	259-1	10	MFD.	25 V. ELECTROLYTIC	280-1	S.P.S.T. TOGGLE
217-1	1	MEGOHM	1/2	WATT	5%	RES.	242-7B		260-1	300	MMFD.	SILVER MICA 2% CAP.	280-2	S.P.S.T. TOGGLE
217-2	1	MEGOHM	1/2	WATT	5%	RES	242-8A	DUAL .1 MFD. 400 V. CAP.	261-1	500	MFD.	6 V. ELECTROLYTIC	280-3	S.P.S.T. TOGGLE
218-1	20,000	OHM	POTENTIOMETER				242-8B		261-2	500	MFD.	6 V. ELECTROLYTIC	281-1	PUSH SWITCH S.P.S.T.
219-1	20	OHM	2	WATT	5%	RES.	242-9A	DUAL .1 MFD. 400 V. CAP.	262-1	105	MMFD.	SILVER MICA 2% CAP.	282-1	D.P.S.T. TOGGLE
220-1	75,000	OHM	1	WATT	5%	RES	242-9B						282-2	D.P.S.T. TOGGLE
221-1	100	OHM	2	WATT	5%	RES	242-10A	DUAL .1 MFD. 400 V. CAP.	263-1	25	MFD.	25 V. ELECTROLYTIC	283-1A	BAND SWITCH
222-1	200,000	OHM	1/2	WATT	5%	RES.	242-10B		264-1A	DUAL .1 MFD. 400 V. CAP.			283-1B	
226-1	100	OHM	1/2	WATT	5%	RES.	243-3	.5 MFD. 400 V. CAP.	264-1B				283-1C	
226-2	100	OHM	1/2	WATT	5%	RES.	243-4	.5 MFD. 400 V. CAP.	264-2A	DUAL .1 MFD. 400 V. CAP.			283-1D	
226-3	100	OHM	1/2	WATT	5%	RES.	244-1	1 MFD. 400 V. PAPER CAP.	264-2B				284-1	BALANCE SWITCH
226-4	100	OHM	1/2	WATT	5%	RES.	244-2	1 MFD. 400 V. PAPER CAP.	264-3A	DUAL .1 MFD. 400 V. CAP.			290-1	RELAY
226-5	100	OHM	1/2	WATT	5%	RES.	244-3	1 MFD. 400 V. PAPER CAP.	264-3B				290-2	RELAY
226-6	100	OHM	1/2	WATT	5%	RES.	244-4	1 MFD. 400 V. PAPER CAP.	264-4A	DUAL .1 MFD. 400 V. CAP.			290-3	RELAY
227-1	5,600	OHM	1/2	WATT	10%	RES.	244-5	1 MFD. 400 V. PAPER CAP.	264-4B				291-1	RELAY
227-2	5,600	OHM	1/2	WATT	10%	RES.	244-6	1 MFD. 400 V. PAPER CAP.	265-1	40	MMFD.	SILVER MICA 3% CAP.	292-1	TRANSFORMER
228-1	2,200	OHM	1/2	WATT	10%	RES.	245-1	.01 MFD. 300 V. MICA CAP.	265-2	2000	MMFD.	20% PLAIN MICA CAP.	293-1	COIL, B F.O.
228-2	2,200	OHM	1/2	WATT	10%	RES.	245-2	.01 MFD. 300 V. MICA CAP.	266-1	2000	MMFD.	20% PLAIN MICA CAP.	294-1	C BAND SHUNT COIL
229-1	22	OHM	1/2	WATT	10%	RES.	246-1	35 MMFD. TRIMMER	266-2	2000	MMFD.	20% PLAIN MICA CAP.		
229-2	22	OHM	1/2	WATT	10%	RES.	246-2	35 MMFD. TRIMMER	266-3	2000	MMFD.	20% PLAIN MICA CAP.		
240-1	50	MMFD.	SILVER	MICA	3%	CAP.	246-3	35 MMFD. TRIMMER	266-4	2000	MMFD.	20% PLAIN MICA CAP.		
240-2	50	MMFD.	SILVER	MICA	3%	CAP.	246-4	35 MMFD. TRIMMER	270-1	A BAND SENSE COIL				
240-3	50	MMFD.	SILVER	MICA	3%	CAP.	246-5	35 MMFD. TRIMMER	271-1	B BAND SENSE COIL				
240-4	50	MMFD.	SILVER	MICA	3%	CAP.			272-1	C BAND SENSE COIL				

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FIGURE 53. Radio Receiver BC-1003-B, schematic diagram.