INSTRUCTIONS

FOR

RADIO RECEIVER BC-946-B

MANUFACTURED BY

COLONIAL RADIO CORPORATION

BUFFALO, N. Y.

ORDER No. 8129-WF-43

RESTRICTED

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OF

THE CHIEF SIGNAL OFFICER

FOR AIRPLANE TYPE_____

AAF SERIAL No._____

THE CENTRAL PRINTING CO. 1-43-15M

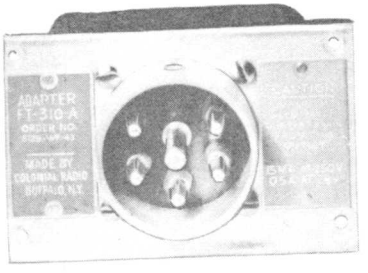
JANUARY 7, 1943

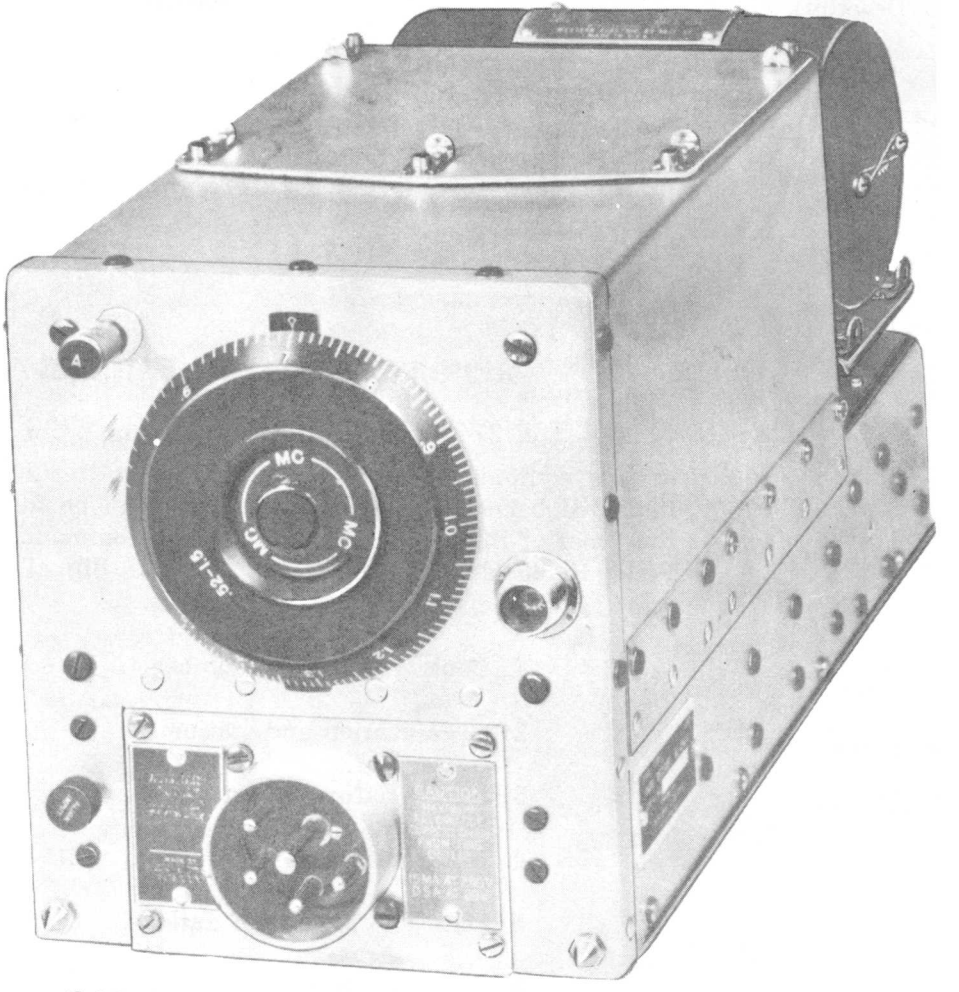
REPORT OF MAJOR FAILURE

In the event of major failure of any of the component units of this equipment, a report shall be submitted in the form indicated below. Copies of this report shall be forwarded to the Chief of Signal Section, Air Service Command, Patterson Field, Fairfield, Ohio, and to the Director, Signal Corps Aircraft Signal Service, Wright Field, Ohio.

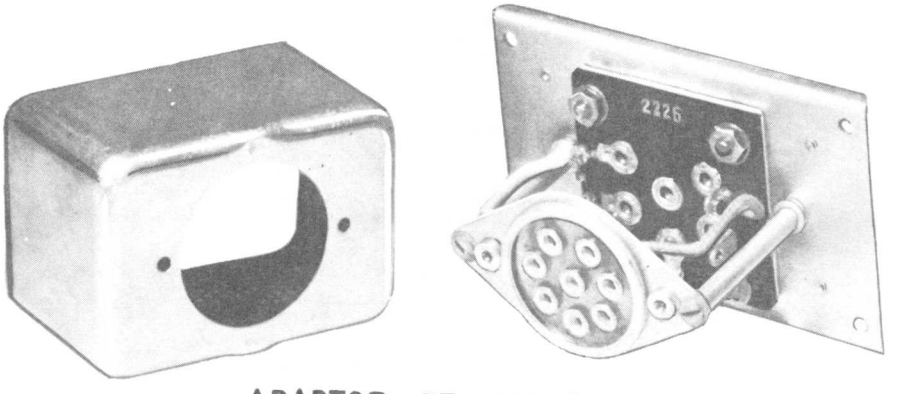
1. Contract or order number.
2. Organization and station.
3. Nomenclature of equipment.
4. Nomenclature of component unit.
5. Date and nature of failure.
6. Type of airplane in which installed.
7. Recommendations.

ADAPTOR
FT-310-A
FRONT VIEW





RADIO RECEIVER BC-946-B



ADAPTOR FT-310-A
INTERIOR VIEW

INSTRUCTIONS
FOR
RADIO RECEIVER BC-946-B

1. Description

a. *General*

Radio Receiver BC-946-B is identical in mechanical design with the other receivers, such as Radio Receiver BC-453-B of Radio Set SCR-274-N, and uses the same tube complement, variable condenser, control box, etc. The radio frequency coil units are externally the same, although the coil details are different internally. Adapter FT-310-A is used with Radio Receiver BS-453-B and other receivers of Radio Set SCR-274-N. The following instructions will cover the differences between Radio Receiver BC-946-B and Radio Receiver BC-453-B.

b. *Frequency Range*

The frequency range of Radio Receiver BC-946-B is .52 mc to 1.5 mc.

c. *Intermediate Amplifier Frequency*

The intermediate frequency of Radio Receiver BC-946-B is 239 kc.

d. *Dial MC-415*

This dial is interchangeable with any of the other dials used on Radio Control Box BC-450-A. The calibration is identical with that of the dial for Radio Receiver BC-946-B.

e. *Adapter Ft-310-A*

This adapter, which is a part of Radio Receiver BC-946-B, provides both high and low voltage outlet. It is mechanically interchangeable with Adapter FT-230-A.

CAUTION: The current drawn by equipment connected to Adapter FT-310-A must not exceed 15 milliamperes at 250 volts and .5 ampere at 28 volts, because the performance of the radio receiver will be adversely affected and the life of the dynamotor reduced.

2. Installation

a. *Radio Receiver BC-946-B*

This receiver may be used interchangeably with any of the other receivers for Radio Set SCR-274-N by following instructions given for them.

b. *Dial MC-415*

This dial is used on the radio control box.

3. Operation

The operation of this receiver is the same as that given for Radio Receiver BC-453-B.

4. Performance

The performance of this receiver is the same as that for Radio Receiver BC-453-B except as tabulated below. (For test conditions see Instruction Book for Operation and Maintenance of Radio Set SCR-274-N.)

Sensitivity

Circuits	Locations	Microvolts	KC
ANTENNA	Antenna Binding Post	8	1500
R-F	R-F Control Grid at Terminal 4	120	1500
MIXER	R-F Control Grid at Top Cap	600	1500
MIXER	I-F Control Grid at Top Cap	470	239
1st I-F	I-F Control Grid at Terminal 4	8600	239
2nd I-F	I-F Control Grid at Terminal 4	100,000	239

Selectivity (520 kc)

MCW Selectivity Factor

2X	10X	100X	1000X
2.9	4.9	6.7	8.7

5. Alignment

a. *Procedure*

The alignment procedure, symbol numbers and trimmer position views are the same as those given for Radio Receiver BC-453-B.

b. *Alignment Frequencies*

Intermediate Frequency .....239 kc
High-end alignment frequency for
C4E, C4D, and C2.....1.40 mc
Low-end alignment frequency for C9 .57 mc

c. *Setting of Cross Mark*

The setting of cross mark on auxiliary gang trimmers is indicated below:

C4F	C4G
Min +	Half +

6. Output Impedence

To change from a 4,000 ohm output connection to 300 ohms proceed as follows:

(1) Remove Capacitor C35

(2) Disconnect black lead from terminal 3 on output transformer T-1 and connect it to terminal 6

(3) Connect a new lead from X on C20B to terminal 6 on output transformer, or to the same terminal from which C35 was disconnected on the power plug.

7. Schematic Diagram

Schematic diagram (Figure 2) is similar to the one for Radio Receiver BC-453-B, and the same symbol numbers are used. The principal differences, however, between the two receivers are as follows:

C 10A and C 10B....slightly different capacity
C 33.....is capacitance of wiring only instead of 3 mmf
R 16 and R 17.....are 100,000 ohms instead of 150,000 ohms
C 39.....is omitted

Add wire from high side of R 10 to terminal 9 on J-1.

LIST SHOWING DIFFERENCES IN REPLACEABLE PARTS
FOR BC-453-B AND BC-946-B RECEIVERS

Contractor—COLONIAL RADIO CORP. Date 12-29-42

Ref. No.	Name of Part	Stock No.	Description	Function	Drawing Numbers Used On BC-453-B	Drawing Numbers Used On BC-946-B
C-9 C-10	Capacitor		Variable, air, △ C approx. 40 mmfd. and fixed mica 400 volts. 690 ± 5 mmfd.	R.F. Osc. series capacitor.	6075	.....
	Capacitor		Variable, air, △ C approx. 40 mmfd. and fixed mica 400 volts, 670 ± 5 mmfd.	R.F. Osc. series capacitor.	.....	6076
C-26	Capacitor	3B9100-59	Fixed 400 volts mica			
			200 mmfd. ± 5%	CW Osc. Blocking.	4513	.....
			100 mmfd. ± 5%	CW Osc. Blocking.	.....	4520
C-27	Capacitor		Fixed, 400 volts, mica ± 2.5 mmfd. from nominal. Part of CW Osc. assembly Z-4	Fixed capacitor part of CW Osc. Tuning		
			Nominal 345 mmfd.		6701	.....
			335 mmfd.		.....	49143
C-33	Capacitor		Fixed, 3 mmfd. ± ½ mmfd. (Wiring capacity only for BC-946-B)	CW Osc. Coupling.	7020	.....
					.....	None
C-39	Capacitor		Fixed, 120 mmf., 2½% 400 volts mica	Across pri. of R.F.	8013	None
J-1	Receptacle		Coupling Receptacle Assembly; 7 Circuit.	To adapter.	4724	49129
?	Plug		Plug Assembly; 4 Circuit.	Adapter to Receiver.	.....	48930
?	Receptacle		Receptacle Plate Assembly.	Adapter receptacle.	.....	2226
N-1	Dial		Dial.	Rec. Tuning Dial.	5613	5610
R-6	Resistor		510000 ohms ± 10% ⅓W Carbon.	R.F. Osc. Series.	4570	.....
	Resistor		300000 ohms ± 10% ⅓W Carbon.	R.F. Osc. Series.	.....	4530

LIST SHOWING DIFFERENCES IN REPLACEABLE PARTS FOR BC-453-B AND BC-946-B RECEIVERS (Continued)

Ref. No.	Name of Part	Stock No.	Description	Function	Drawing Numbers Used On BC-453-B	Drawing Numbers Used On BC-946-B
R-14	Resistor	3Z6700-48	51000 ohms ± 10% ⅓W Carbon.	CW Osc. Grid.	4569	.....
	Resistor		100000 ohms ± 10% ⅓W Carbon.	CW Osc. Grid.	.....	4501
R-16	Resistor		150000 ohms ± 10% ⅓W Carbon.	CW Osc. Plate Dropping.	4571	.....
	Resistor		100000 ohms ± 10% ⅓W Carbon.	CW Osc. Plate Dropping.	.....	4501
R-17	Resistor		Same as R-16.	CW Osc. Plate Dropping.		
R-28	Resistor	3Z6651-3	51000 ohms ± 10% ⅓W Carbon.	R.F. Primary Load.	None	4569
Z-1	Coupling Unit		1st I.F. Coupling Unit, complete assembly including shield can and mtg. plate.	1st I.F.	4698	7268
Z-2	Coupling Unit		2nd I.F. Coupling Unit, complete.	2nd I.F.	7267	7269
Z-3	Coupling Unit		3rd I.F. Coupling Unit, complete.	3rd I.F.	4677	7270
Z-4	CW Osc.		CW Osc. Complete Assy.	CW Osc.	5852	5853
Z-5	RF Coil Set		R.F. Coil Set Assy. including Ant. Z-5A, R.F. Amp. Z-5B, R.F. Osc. Z-5C in shield cans mounted on a cover.	R.F. Coil Set.	6184	7975

INDEX OF MANUFACTURERS

Abbrev.	Name and Address
A	The Muter Company, Chicago, Ill.
B	Centralab, Milwaukee, Wis.
C	F. W. Sickles Co., Chicopee, Mass.
D	Cornell-Dubilier Electric Corp., So. Plainfield, N. J.
E	Solar Mfg. Co., Bayonne, N. J.
F	Aerovox Corp., New Bedford, Mass.
G	Eastman Kodak, Rochester, N. Y.
H	Sprague Specialties Co., North Adams, Mass.
I	General Electric Co., Schenectady, N. Y.
J	Colonial Radio Corp., Buffalo, N. Y.
K	The Rola Co., Cleveland, Ohio
L	Allen-Bradley, Milwaukee, Wis.
M	International Resistance Co., Philadelphia, Pa.
N	Ward-Leonard Electric Co., Mount Vernon, N. Y.
O	Ohmite Mfg. Co., Chicago, Ill.
P	American Phenolic Corp., Chicago, Ill.
R	Cinch Mfg. Co., Chicago, Ill.
S	Groov-Pin Corp., Long Island City, N. Y.

COMPLETE TABLE OF REPLACEABLE PARTS

FOR RADIO RECEIVER BC-946-B

Quant.	Ref. No.	Stock No.	Name of Part	Description	Function	*Mfr.	Dwg. No.
2	C-1		Capacitor	Ceramic—11 MMF ±½ MMF.	Ant. Series.	A, B,	9046
2	C-2		Capacitor-Shunt	Variable, Air, △C. Approximately 15 MMF.	Input Alignment.	C	5676
2	C-3		Capacitor	Fixed Mica—.0001 MFD. ±5% 400V.—C D Type 5 or Equivalent.	R. F. Amp. Grid Blocking.	D, E, F,	4520
1	C-4		Capacitor	Three Equal—Section Gang with Trimmers.	Preselector and R. F. Oscillator.	G	3936
3	C-5		Capacitor	3 MFD. Dry Electrolytic. Impedance at 60 Cycles Not Over 1750 Ohms.	Gain Control. Line Filter.	F, H, D,	7582 or ESL692651
2	C-6		Capacitor	.05/.05/.05 MFD. ±15%. 300 Volts Paper.		F, H, D,	5414 or ESL692644
				A Section.	Mixer Plate By-Pass.		
				B Section.	Gain Control Line By-Pass.		
				C Section.	1st R. F. Cathode By-Pass.		
2	C-7		Capacitor	Same as C-6.		F, H, D,	
				A Section.	Mixer Screen By-Pass.		
				B Section.	Mixer Cathode By-Pass.		
				C Section.	AGC line By-Pass .		
2	C-8		Capacitor	Fixed Mica—.0002 MFD. ±5%, 400V. △D Type 5 or Equivalent.	R. F. Osc. Grid Blocking.	D. E, F,	4513
2	C-9 & C-10		Capacitor	Variable, Air, DC Approximately 40 MMF—and Fixed Mica 400 Volts 670 ±5 MMF.	R. F. Osc. Series Capacitor.	C	6076

*See Index to Manufacturers.

COMPLETE TABLE OF REPLACEABLE PARTS—(Continued)

Quant.	Ref. No.	Stock No.	Name of Part	Description	Function	*Mfr.	Dwg. No.
2	C-11		Capacitor	Ceramic—Compensator, 3 MMF. ±½ MMF with Temperature Coefficient of—.00075 MMF. per MMF. per Degree Centigrade ±15%, Centralab Co., Type 807 or Equivalent.	R. F. Osc. Temperature Compensation.	A, B,	7020
2	C-15		Capacitor	Same as C-6. A Section B Section. C Section.	Grid Return By-Pass. 1st & 2nd IF. 1st IF Cathode By-Pass. CW Osc. Plate Line Filter.		
2	C-16		Capacitor	.22/.22/.22 MFD. ±20%, 300 Volts Paper. A Section. B Section. C Section.	 2nd IF Screen By-Pass. Dyn. H. V. Filter. Dyn. L. V. Filter.	F, H, D,	5413 or ESL692643
2	C-20		Capacitor	.05/.01/.05 MFD. ±15%, 300 Volts Paper. A Section. B. Section. C Section.	 2nd IF Amp. Cathode By-Pass. Not Used. 2nd IF Amp. Plate By-Pass.	F, H, D,	5415
1	C-29		Capacitor	Fixed Mica—.006 MFD. ±5% , 400 Volts, Aerovox Type 1461 or Equivalent.	Audio Coupling.	D, E, F,	4091
3	C-30		Capacitor	15 MFD., Dry Electrolytic Impedance at 60 Cycles Not Greater Than 350 Ohms.	Audio Amp. Cathode By-Pass.	F, H, D,	5416 or ESL692646
1	C-31		Capacitor	Fixed Mica—.001 MFD., ±5%, 400 Volts, Aerovox 1461 or Equivalent.	Output Filter.	D, E, F,	4114

*See Index to Manufacturers.

COMPLETE TABLE OF REPLACEABLE PARTS—(Continued)

Quant.	Ref. No.	Stock No.	Name of Part	Description	Function	*Mfr.	Dwg. No.
3	C-32		Capacitor	5 MFD., Dry Electrolytic. Impedance at 60 Cycles Not Greater than 1050 Ohms.	Dyn. H. V. Filter.	F, H, D,	6350 or ESL692649
1	C-35		Capacitor	Fixed Mica—750 MMF., ±5% 400 Volts.	Rec. Output Audio Filter.	D, E, F,	4522
2	E-1		Binding Post	Antenna Binding Post "A."	Ant. Binding Post.		4667
2			Clip	Neon Lamp.	Mounting for Neon Lamp.	J	ESA691038
1	E-8		Clip	Grid.	Connects to Mixer Control Grid.	J	4754
1	E-4		Insulator	Insulators for Antenna. Binding Post.	Insulation.		
				A Section, Outside.			3485
				B Section, Inside.			6597
				1 Washer 6481, and 1 Washer 5727 Req'd. to Complete Assembly.			
1	E-9		Knob	Input Alignment Control Knob.	Ant. Input Alignment.	J	ESA690856
5	H-3		Snapslide	Formed Snapslide. Parts of the Mechanism Includes:	Fastener.		
				Snapslide (On Cover).		J	3888
				Snapslide Guide (On Cover).		J	3887
				Snapslide Button (On Cover).		J	3890
				Snapslide Stud (On Shield).		J	4708
				Washers (On Cover).		J	3889
4	H-6		Panel	Typical Resistor Panel Assembly.	For Carbon Resistors.	J	Col. 48861
2	H-10		Stud	Conical Stud.	For Rec. Locking.	J	4710

*See Index to Manufacturers.

COMPLETE TABLE OF REPLACEABLE PARTS—(Continued)

Quant.	Ref. No.	Stock No.	Name of Part	Description	Function	*Mfr.	Dwg. No.
1	J-1		Receptacle	Coupling Receptacle Assem., 7 Circuit.	To Adapter.	J	Col. 49129
1	J-2		Receptacle	Coupling Receptacle Assem., 3 Circuit.	To Dynamotor.	J	4718
1	J-3		Plug	Plug Assem., 7 Circuit.	To Rec. Rack.	J	5488
1			Plug	Plug Assem., 4 Circuit.	Adapter to Rec.	J	Col. 48930
1			Receptacle	Receptacle Plate Assem.	Adapter Receptacle.	J	2226
3	J-28		Receptacle	Typical IF Coupling Unit Receptacle Assem.	To IF Coupling Unit.	J	4723
3	J-29		Receptacle	Typical RF Coil Receptacle Assem.	To RF Coil.	J	4722
7			Jack				5228
1	L-14		Inductor	RF Choke, 112 Microhenries ± 10%, DC Resistance Not Over .15 Ohms.	RF Choke.	C	5546
1	L-15		Inductor	AF Choke, 3 Henries with .05 Amperes DC, DC Resistance 325 Ohms, ±15%.	AF Choke.	K	5634
1	N-1		Dial	Dial.	Rec. Tuning Dial.		5610
23	P-5		Plug	Pin Plug Assem. (On Dyn. Receptacle Assem.)	Connector.		7949
2	R-1		Resistor	620 ohms, ± 10%, 1/3 W. Carbon, A-B Type E.	1st RF Cathode Auto-Bias.	L	6004
2	R-2		Resistor	2 Megohms, ± 10%, 1/3 W., Metalized, Int. Resistance Co., Type F 1/3.	RF Amp. Grid.	M	4439
2	R-4		Resistor	Same as R-1.	Mixer Cathode Auto-Bias.	L	
2	R-5		Resistor	150M Ohms ± 10%, 1/3W. Carbon, A-B Type E.	AGC Line Decoupling.	L	4571

*See Index to Manufacturers.

COMPLETE TABLE OF REPLACEABLE PARTS—(Continued)

Quant.	Ref. No.	Stock No.	Name of Part	Description	Function	*Mfr.	Dwg. No.
2	R-7		Resistor	200 Ohms, ± 10%, 1/3W. Carbon, A-B Type E.	Mixer Plate Decoupling.	L	4497
2	R-8		Resistor	Same as R-7.	RF Amp. and Mixer Screen Decoupling.	L	
2	R-9		Resistor	Same as R-1.	1st IF Cathode Auto-Bias.	L	
2	R-10		Resistor	360M Ohms. ± 10%, 1/3W. Carbon, A-B Type E.	H. V. Bleeder to Gain Control.	L	8032
2	R-11		Resistor	100M Ohms. ± 10%, 1/3W. Carbon, A-B Type E.	AGC Resistor.	L	4501
2	R-12		Resistor	510 Ohms. ± 10%, 1/3W. Carbon, A-B Type E.	2nd IF Cathode Auto-Bias.	L	6005
2	R-13		Resistor	Same as R-7.	2nd IF Plate Decoupling.	L	
2	R-14		Resistor	Same as R-11.	CW Osc. Grid.	L	
2	R-15		Resistor	20M Ohms. ± 10%, 1/3W. Carbon, A-B Type E.	CW Osc. Plate Decoupling and Dropping.	L	4510
2	R-16		Resistor	Same as R-11.	CW Osc. Plate Dropping.	L	
2	R-17		Resistor	Same as R-11.	Same as R-16.	L	
2	R-18		Resistor	510M Ohms. ± 10%, 1/3W. Carbon, A-B Type E.	Diode Series.	L	4570
2	R-19		Resistor	Same as R-11.	RF Decoupling.	L	
2	R-20		Resistor	2 Megohms. ± 10%, 1/3W. Carbon, A-B Type E.	Grid Resistor Audio Amp.	L	4503
2	R-21		Resistor	1500 Ohms. ± 10%, 1/3W. Carbon, A-B Type E.	Audio Amp. Cathode Auto-Bias.	L	4506

*See Index to Manufacturers.

COMPLETE TABLE OF REPLACEABLE PARTS—(Continued)

Quant.	Ref. No.	Name of Part	Description	Function	*Mfr.	Dwg. No.
2	R-22	Resistor	7M Ohms. ± 2%, 7W. Wire Wound, Vitreous.	High Voltage Bleeder.	N, O,	5895
2	R-23	Resistor	Same as R-22.	Same as R-22.	N, O,	
2	T-1	Transformer	Primary, 4000 Turns #40 E. Wire, Secondary, 1800 Turns #38 E.Wire. Primary DC Resistance 1028-1300 Ohms. Secondary DC Resistance 272-350 Ohms.	Rec. Output.	K	ESL691027
3	V-1	Neon Lamp	Neon Lamp, G.E. Co., Type T-2, Modified.	RF Input Voltage Limiter.	I	5913
3	V-2	Neon Lamp	Same as V-1.	AF Output Voltage Limiter.	I	
6	X-1	Socket	Octal Base Tube Socket. Does Not Include Bakelite Washer 6566 which Should Be Specified if Required. American Phenolic Corp., Type S-8, Modifies, or Equivalent. Amphenol #4 Retainer Ring is Part of Assembly.	For All Octal-Base Tubes in Rec.	P, R,	6559
2	Z-1	Coupling Unit	1st IF Coupling Unit, Complete Assembly, Including Shield Can and Mounting Plate.	1st IF.	C	7268
2	Z-2	Coupling Unit	2nd IF Coupling Unit, Complete Assembly, Including Shield Can and Mounting Plate.	2nd IF.	C	7269
2	Z-3	Coupling Unit	3rd IF Coupling Unit, Complete Assembly, Including Shield Can and Mounting Plate.	3rd IF.	C	7270
1	Z-4	CW Osc.	CW Osc. Complete Assem., Including Shield Can.	CW Osc.	C	5853

*See Index to Manufacturers.

COMPLETE TABLE OF REPLACEABLE PARTS—(Continued)

Quant.	Ref. No.	Stock No.	Name of Part	Description	Function	*Mfr.	Dwg. No.
1	Z-5 (A, B, C,)		RF Coil Set	RF Coil Set Assem., Complete, Including Ant. Coil Z-5A, RF Amp. Z-5B, and RF Osc. Z-5C, in Shield Cans, Mounted on a Cover.	RF Coil Set	C	7975
1			Groov-Pin	Groov-Pin 3/64 x 1/8		S	4160
2			Groov-Pin	Groov-Pin 3/64 x 3/16		S	4166
13			Pin—Plug			G	4628
5			Pin—Plug			G	9081

*See Index to Manufacturers.

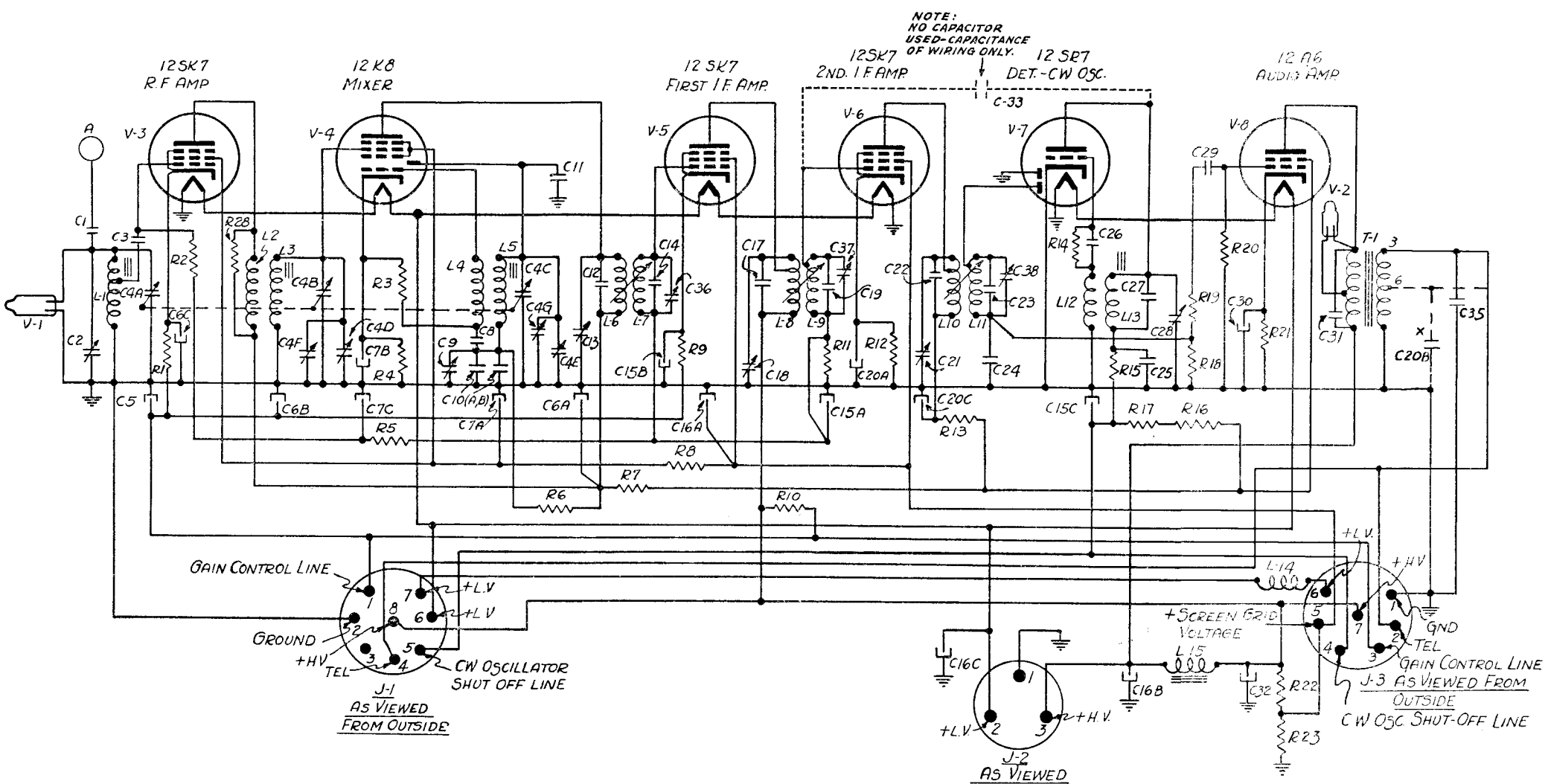
COMPLETE TABLE OF REPLACEABLE PARTS—(Continued)

Miscellaneous Parts Apt To Be Required In Servicing Receiver BC-946-B

Quant.	Description	Dwg. No.
26	Screw, Binding Head, #3-48 x 3/16 Nickle Plated	4058
2	Screw, Binding Head, #3-48 x 1/8 Nickle Plated	4134
4	Screw, Fillister Head, #6-32 x 3/8 Black Nickle Plated	4138
16	Screw, Binding Head, #3-48 x 1/4 Nickle Plated	4168
2	Screw, Binding Head, #4-40 x 1/4 Nickle Plated	6008
2	Screw, Phillips Flat Head, #3-48 x 3/16 Black Nickle Plated	6010
19	Screw, Binding Head, #3-48 x 7/32 Black Nickle Plated	6017
4	Screw, Binding Head, #3-48 x 7/16 Nickle Plated	6018
4	Screw, Binding Head, #4-40 x 3/16 Black Nickle Plated	6019
33	Screw, Binding Head, #3-48 x 5/32 Black Nickle Plated	6020
2	Screw, Binding Head, #3-48 x 5/32 Nickle Plated	7002
6	Screw, Binding Head, #3-48 x 3/16 Black Nickle Plated	Col. 48920
2	Washer—Flat	5402
7	Washer—Flat	5520
6	Washer—Flat (Bakelite)	6566
2	Washer—Shakeproof #6 Int. Tooth	4042
100	Washer—Shakeproof #3 Int. Tooth	4558
4	Washer—Shakeproof #4 Int. Tooth	4242
1	Washer—Special (Hard Rubber)	6481
1	Washer—Spring	5727
2	Nut—Hex.—#6-32 x 5/64 Nickle Plated	4041
1	Nut—Hex.—1/2-27 x 1/8 Cadmium Plated	1285
1	Nut—Hex.—1/2 x 27	5863
4	Nut—Hex.—3-48 x 1/16 Nickle Plated	4561
1	Nut—Hex.—4-40 x 5/64 Nickle Plated	6009
1	Sleeve	6397

RADIO RECEIVER BC-946-B

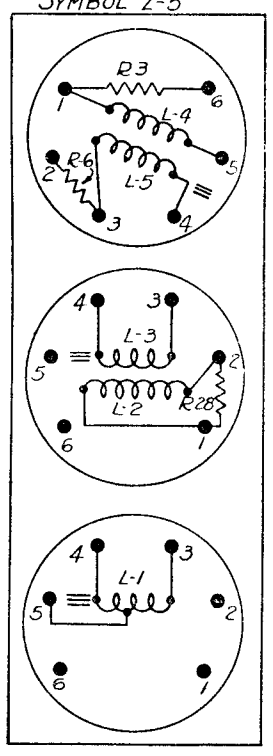
Schematic Wiring Diagram



CAPACITANCES		INDUCTANCES		RESISTANCES	
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	OHMS
C-1	11 MMF	L-1	ANT. INPUT	R-1	620
C-2	15 MMF	L-2, L-3	R F AMP	R-2	2,000,000
C-3	100 MMF	L-4, L-5	R F OSC	R-3	51,000
C-4(A TO C)	GANG (346 MMF)	L-6, L-7	IN FIRST IF	R-4	620
C-5	3 MFD	L-8, L-9	IN 2ND IF	R-5	150,000
C-6(A,B,C)	.05/.05/.05 MFD.	L-10, L-11	IN 3RD IF	R-6	300,000
C-7(A,B,C)	.05/.05/.05 MFD	L-12, L-13	CW OSC	R-7	200
C-8	200 MMF	L-14	RF CHOKE	R-8	200
C-9	40 MMF		112 MICRO-	R-9	620
C-10 (AB)	670 MMF TOTAL		HENRIES	R-10	380,000
C-11	3 MMF	L-15	AF CHOKE	R-11	100,000
C-12	180 MMF		3 HENRIES	R-12	510
C-13	17 MMF			R-13	200
C-14	180 MMF			R-14	100,000
C-15(A,B,C)	.05/.05/.05 MFD			R-15	20,000
C-16(A,B,C)	.22/.22/.22 MFD			R-16	100,000
C-17	180 MMF			R-17	100,000
C-18	17 MMF			R-18	510,000
C-19	180 MMF			R-19	100,000
C-20(A,B,C)	.05/.01/.05 MFD			R-20	2,000,000
C-21	17 MMF			R-21	1500
C-22	180 MMF			R-22	7000
C-23	180 MMF			R-23	7000
C-24	200 MMF			R-28	51,000
C-25	.001 MFD				
C-26	100 MMF				
C-27	335 MMF				
C-28	34 MMF				
C-29	.006 MFD				
C-30	15 MFD				
C-31	.001 MFD				
C-32	5 MFD				
C-33	WIRING CAPACITANCE LESS THAN 2 MMF				
C-35	750 MMFD (SEE NOTE ④ BELOW)				
C-36	17 MMF				
C-37	17 MMF				
C-38	17 MMF				

CIRCUITS IN RF COIL SET, IF COUPLING UNITS, CW OSCILLATOR, & OUTPUT TRANSFORMER THE TERMINAL NUMBERS ON THESE UNITS AGREE WITH THOSE SHOWN AT THE CORRESPONDING LOCATIONS ON THE WIRING DIAGRAM

RF COIL SET
SYMBOL Z-5

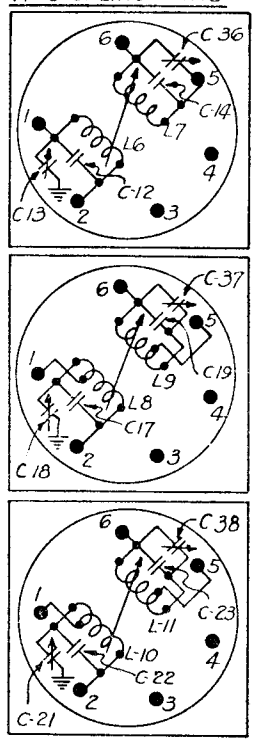


SYMBOL Z-5C
RF OSCILLATOR

SYMBOL Z-5B
RF AMPLIFIER

SYMBOL Z-5A
RF ANTENNA

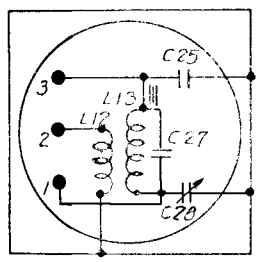
IF COUPLING UNITS



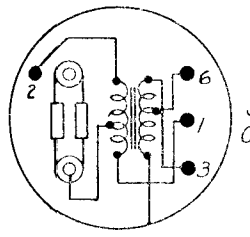
SYMBOL Z-1
1ST I.F
(239 KC)

SYMBOL Z-2
2ND I.F
(239 KC)

SYMBOL Z-3
3RD I.F
(239 KC)



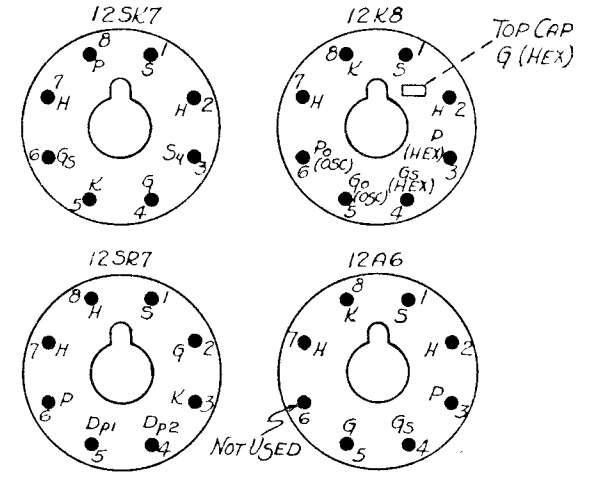
SYMBOL Z-4
CW OSCILLATOR
(239 KC)



SYMBOL T-1
OUTPUT TRANSFORMER

④ C35 & TERMINAL 3 TO BE USED FOR 4000 OHM OUTPUT
C20B & TERMINAL 6 TO BE USED FOR 300 OHM OUTPUT

TUBE SOCKET TERMINALS
AS VIEWED FROM BOTTOM



TUBE TERMINAL CODE

S = SHELL
H = HEATER
K = CATHODE
S_4 = SUPPRESSOR GRID
D_{P1} = FIRST DIODE PLATE
D_{P2} = SECOND DIODE PLATE
G = CONTROL GRID
G_5 = SCREEN GRID
G_5 (HEX) = SCREEN GRID, HEXODE SECTION
G_0 (OSC) = CONTROL GRID, OSC. SECTION
P = PLATE
P (HEX) = PLATE, HEXODE SECTION
P_0 (OSC) = PLATE, OSC. SECTION
G (HEX) = CONTROL GRID, (HEXODE SECTION)