



Models 47, 48

SPECIFICATIONS

MODEL 47

TYPE OF CIRCUIT—A five tube superheterodyne radio receiver with automatic volume control, pentode output, and an electro-dynamic speaker. A phono-jack provides input for a high impedance pickup.

POWER SUPPLY—115 volts A.C.

POWER CONSUMPTION—30 watts.

FREQUENCY RANGE—540-1600 K.C.

INTERMEDIATE FREQUENCY—460 K.C.

AUDIO OUTPUT—1.5 watts.

PHILCO TUBES USED—6A8EG converter, 6K7EG I.F., 6Q7G 2nd det., 1st. audio A.V.C., 6K6EG output, 80 rectifier.

CABINET DIMENSIONS—13" x 7-13/16" x 7".

MODEL 48

TYPE OF CIRCUIT—A five tube superheterodyne radio receiver with automatic volume control, pentode output, and an electro-dynamic speaker. A phono-jack provides input for a high impedance pickup. This model also has a short wave band covering 9.5-12 M.C.

POWER SUPPLY—115 volts A.C.

POWER CONSUMPTION—30 watts.

FREQUENCY RANGE—540-1600 K.C.
9.5-12 M.C.

INTERMEDIATE FREQUENCY—460 K.C.

AUDIO OUTPUT—1.5 watts.

PHILCO TUBES USED—6A8EG converter, 6K7EG I.F., 6Q7G 2nd det., 1st. audio A.V.C., 6K6EG output, 80 rectifier.

CABINET DIMENSIONS—13¼" x 7⅛" x 8".

ALIGNMENT OF COMPENSATORS

EQUIPMENT REQUIRED

1. **Signal Generator** with a frequency range from 115 to 32,500 K.C. such as Philco Model 070.

2. **Aligning Indicator**, Philco Model 028, vacuum tube voltmeter and circuit tester incorporates a sensitive audio output meter and vacuum tube voltmeter. This instrument can be used as an aligning indicator.

3. **Fibre Handled Screw Driver**—Philco Part No. 45-2610, and **Fibre Wrench**, Philco Part No. 3164.

Connecting Aligning Instruments—To align the receiver accurately, connect an audio output meter, such as Philco Model 028, to the speaker voice coil terminals or to the plate and screen terminals of the output tube. Adjust the compensators in the order as shown in the table below. If the aligning meter goes off scale when adjusting the compensators, reduce the strength of the signal from the generator.

MODEL 47

Operations in Order	SIGNAL GENERATOR		RECEIVER			SPECIAL INSTRUCTIONS
	OUTPUT CONNECTIONS TO RECEIVER	DIAL SETTING	DIAL SETTING	CONTROL SETTING	Adjust Compensators	
1	High Side to 6A8EG Grid Cap	460 K.C.	580 K.C.	Volume Maximum	9A 7B 7A	Note A
2	To Antenna Lead	1500 K.C.	1500 K.C.	Volume Maximum	2B 2A	Note B, C
3	To Antenna Lead	600 K.C.	600 K.C.	Volume Maximum		Check Calibration

MODEL 48

Operations in Order	SIGNAL GENERATOR		RECEIVER			SPECIAL INSTRUCTIONS
	Output Connections to Receiver	DIAL SETTING	DIAL SETTING	CONTROL SETTING	Adjust Compensators	
1	High Side to 6A8EG Grid Cap	460 K.C.	580 K.C.	Volume Max. Band SW B.C.	28A, 4B, 4A	Note A
2	To Antenna Lead	12 M.C.	12 M.C.	Volume Max. Band Switch S.W.	3B	Note E
3	To Antenna Lead	1500 K.C.	1500 K.C.	Volume Max. Band Switch B.C.	12, 3A	Note B
4	To Antenna Lead	600 K.C.	600 K.C.	Volume Max. Band SW B.C.	13	Note D
5	To Antenna Lead	1500 K.C.	1500 K.C.	Volume Max. Band SW B.C.	12, 3A	

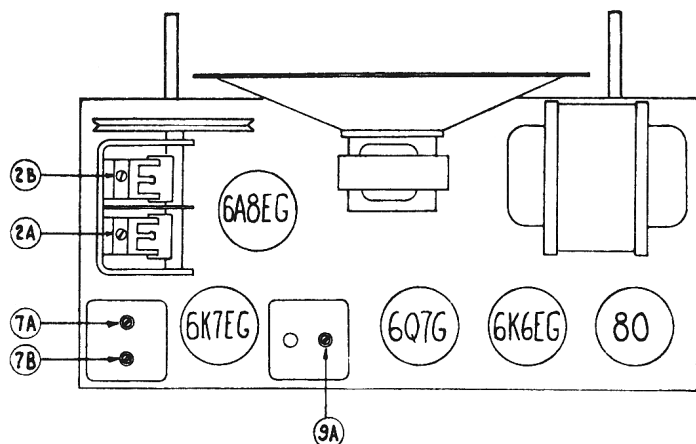
NOTE A—A dummy antenna consisting of a .1 mfd. condenser is connected in series with the high side of the signal generator output lead. This dummy is used for I.F. alignment only.

NOTE B—A dummy antenna for aligning the R.F. circuits consists of a 100 Mmfd. condenser in series with the high side of the signal generator output lead.

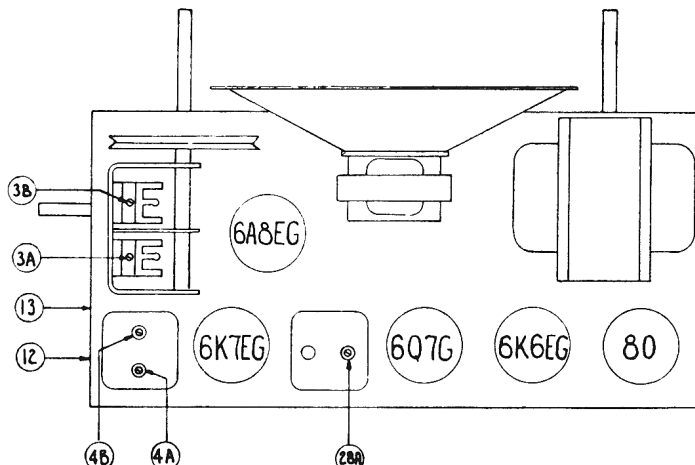
NOTE C—The dial must be aligned to track properly with the tuning condenser. This is accomplished by closing the tuning condenser (maximum capacity) and setting the pointer on the small line just before the 550 K.C. mark on the scale.

NOTE D—Roll gang.

NOTE E—A dummy antenna of 400 ohms should be connected in series with the high side of the signal generator output lead.



LOCATION OF COMPENSATORS — MODEL 47



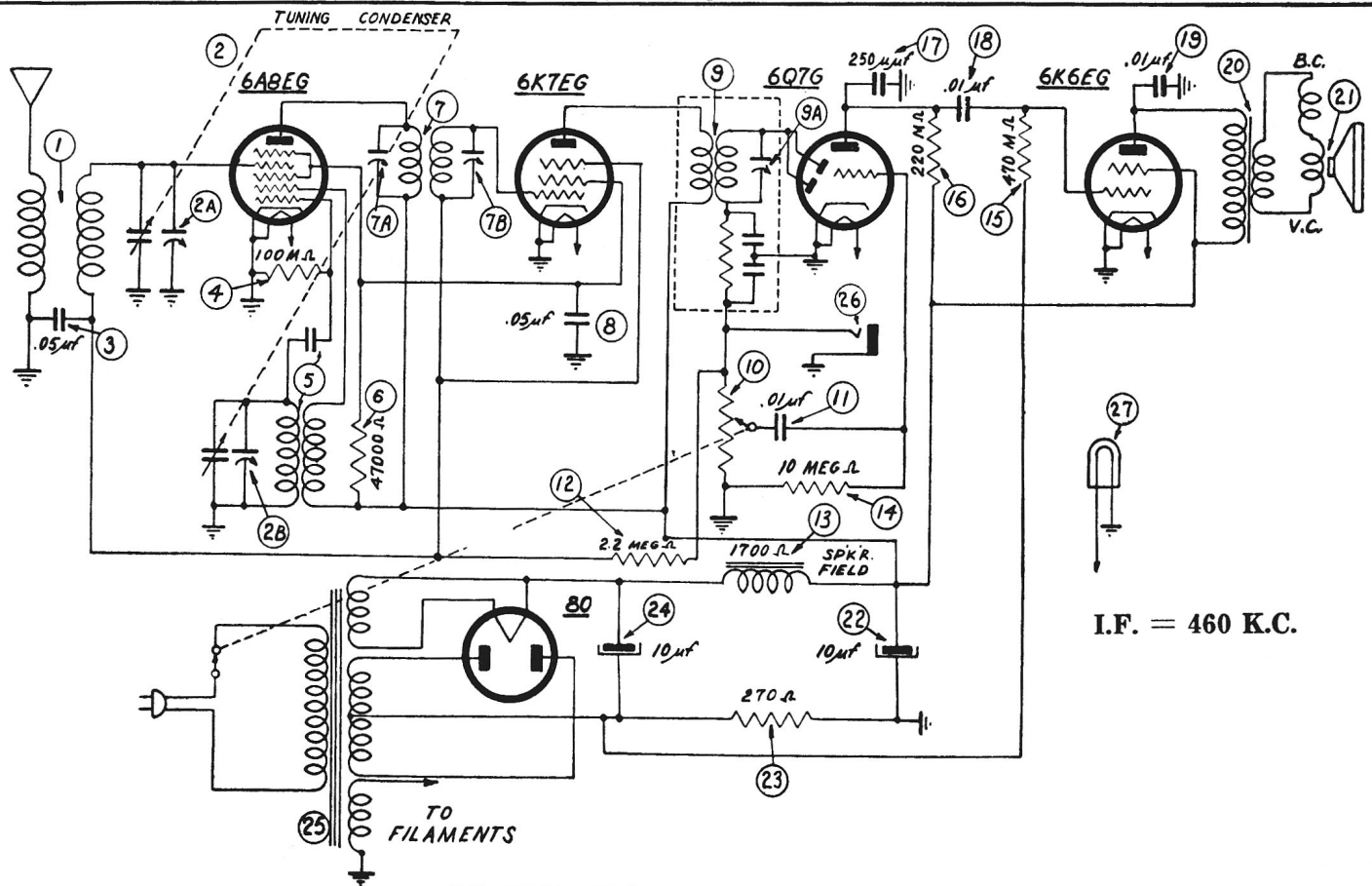
LOCATION OF COMPENSATORS — MODEL 48

REPLACEMENT PARTS LIST — MODEL 47

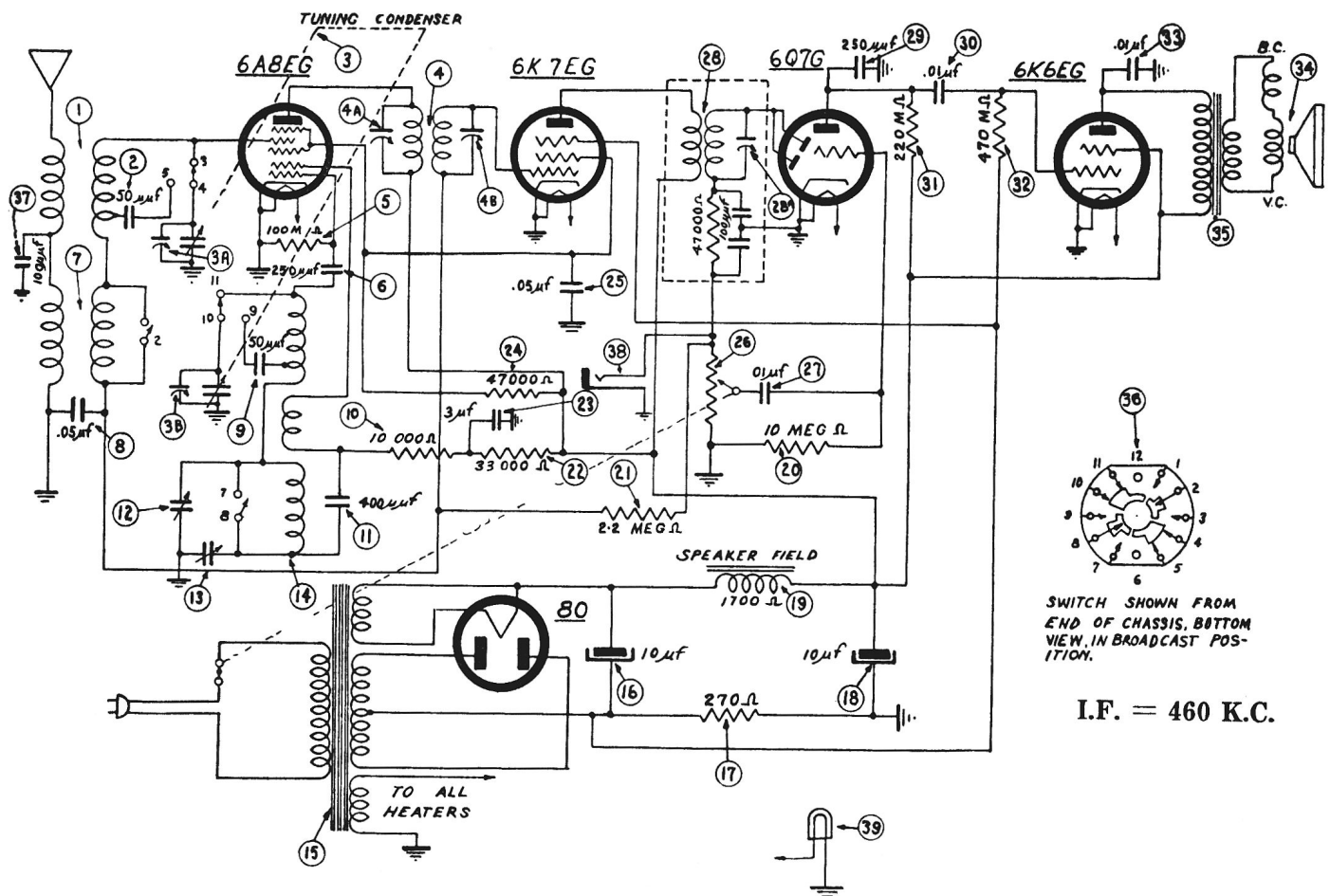
Schem No.	Description	Part No.	Schem No.	Description	Part No.
1	Antenna Transformer	32-3166	23	Res. (270 ohms, 1 watt)	33-127436
2	Tuning Condenser	11-0005	24	Elec. Condenser (Part of 22)	
3	Tub. Cond. (.05 mfd., 200v)	30-4519	25	Power Transformer	
4	Res. (100,000 ohms, 1/3 watt)	33-410254		25 cycle	12-0027
5	Oscillator Transformer	12-0024		60 cycle	12-0026
6	Res. (47,000 ohms, 1/2 w.)	33-347354	27	Pilot Lamp	34-2068
7	1st I.F. Transformer	12-0023		Tube Socket (octal)	07-0037
8	Tub. Cond. (.05 mfd., 200v)	30-4519		Tube Socket (4 prong)	07-0046
9	2nd I.F. Transformer	12-0025		Tube Shield	08-0019
10	Volume Control	33-5434		Tube Shield Ring	08-0020
11	Tub. Cond. (.01 mfd. 400v)	30-4572		Pilot Lamp Assembly	18-0030
12	Res. (2.2 meg. 1/3 watt)	33-522254		Dial Plate Pulley	27-4981
13	Speaker Field (not replaceable)			Phono Socket	27-6149
14	Res. (10 meg. 1/3 watt)	33-610254		Grid Clip	28-3888
15	Res. (470,000 ohms, 1/3w)	33-447254		Coil Clip	28-5002
16	Res. (220,000 ohms, 1/3w)	33-422254		Drive Cord Spring	28-8954
17	Mica Cond. (250 mmfd.)	60-125157		Tuning Shaft	31-2528
18	Tub. Cond. (.01 mfd. 400v)	30-4572		Drive Cord	31-2529
19	Tub. Cond. (.01 mfd. 400v)	30-4572		Lamp Bracket	56-2056
20	Output Transformer	12-0060		Dial Back Plate	56-2057
21	Speaker	16-0005-4		Ant. Coil Mtr. Bracket	56-2058
22	Elec. Cond. 10-10 mfd. 10-0008			Pointer	56-2076
				Cone & Voice Coil Assembly (Speaker 16-0005)	25-0033

REPLACEMENT PARTS LIST — MODEL 48

Schem No.	Description	Part No.	Schem No.	Description	Part No.
1	B.C. Antenna Coil	12-0028	29	Mica Cond. (250 mmfd.)	60-125157
2	Mica Cond. (50 mmfd.)	60-050327	30	Tub. Cond. (.01 mfd. 400v)	30-4572
3	Tuning Condenser	11-0006	31	Res. (220,000 ohms, 1/3w)	33-422254
4	1st I.F. Transformer	12-0023	32	470,000 ohms, 1/3 watt	33-447254
5	Res. (100,000 ohms, 1/3w)	33-410254	33	Tub. Cond. (.01 mfd. 400v)	30-4572
6	Mica Cond. (250 mmfd.)	60-110337	34	Speaker	16-0005
7	S.W. Antenna Coil	12-0030	35	Output Transformer	12-0060
8	Tub. Cond. (.05 mfd. 200v)	30-4519	36	Wave Switch	22-0011
9	Silver Mica Cond. (50 mmfd.)	61-0140	37	Mica Cond. (100 mmfd.)	60-110337
10	Res. (10,000 ohms, 1/3 w)	33-310254	38	Phono Socket	27-6149
11	Mica Cond. (400 mmfd.)	60-140157	39	Pilot Lamp	34-2068
12	Osc. Padding Condenser	11-0007		Tube Socket (octal)	07-0037
13	Osc. Tracking Cond. (Part of 12)			Tube Socket (4 prong)	07-0046
14	Osc. Transformer	12-0029		Tube Shield	08-0019
15	Power Transformer			Tube Shield Ring	08-0020
	60 cycle	12-0026		Antenna Coil Bracket	08-0030
	25 cycle	12-0027		Pilot Lamp Assembly	18-0030
16	Elec. Cond. 10-10 mfd. 10-0008			Dial Plate Pulley	27-4981
17	Res. (270 ohms, 1 watt)	33-127436		Coil Mtr. Bracket (brass)	28-3808
18	Elec. Condenser (Part of 16)			Grid Clip	28-3888
19	Speaker Field (not replaceable)			Drive Cord Spring	28-8954
20	Res. (10 meg., 1/3 watt)	33-610254		Tuning Shaft	31-2528
21	Res. (2.2 meg., 1/3 watt)	33-522254		Drive Cord	31-2529
22	Res. (33,000 ohms, 1/3w)	33-333254		Shield Clip	56-1567
23	Osc. Filter Cond. (3 mfd.)	30-2359		Lamp Bracket	56-2056
24	Res. (47,000 ohms, 1/2 w)	33-347354		Dial Back Plate	56-2057
25	Tub. Cond. (.05 mfd. 400v)	30-4519		Pointer	56-2076
26	Volume Control	33-5434		Cone & Voice Coil Assembly (Speaker 16-0005)	25-0033
27	Tub. Cond. (.01 mfd. 400v)	30-4572			
28	2nd I.F. Transformer	12-0025			



SCHEMATIC DIAGRAM MODEL 47



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