

Most - Often - Needed

1926-1938

**RADIO
DIAGRAMS**
and Servicing Information

Compiled by

M. N. BEITMAN



SUPREME PUBLICATIONS
CHICAGO

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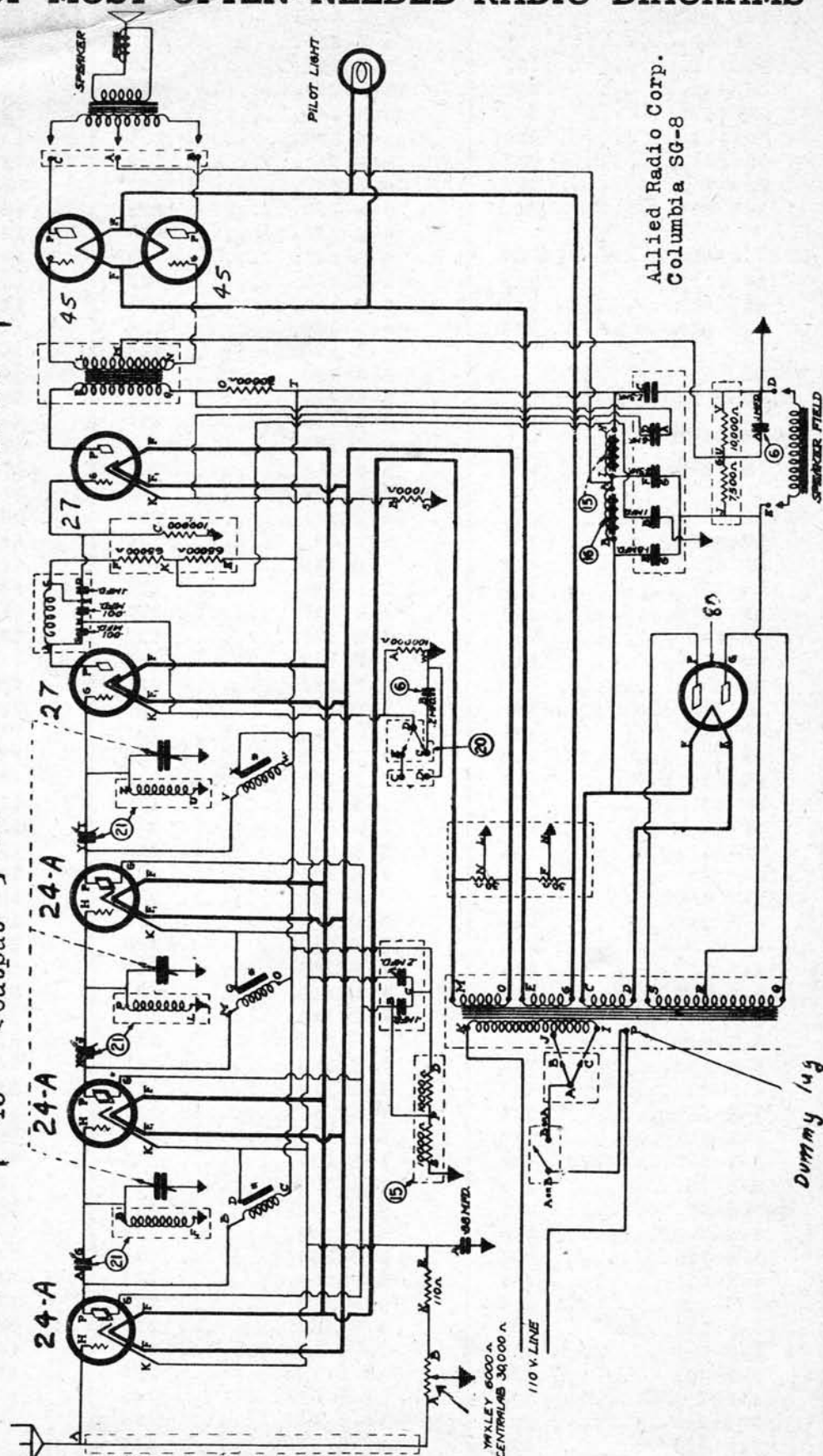
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MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

Tube	Position	Plate Volts	Screen Volts	Grid Volts	Plate Current
24-A	1st R.F.	180	80	-1.5	4.5 ma.
24-A	2nd R.F.	180	80	-1.5	4.5 ma.
24-A	3rd R.F.	180	80	-1.5	4.5 ma.
27	Detector	106		-14.5	0.2 ma.
27	1st A.F.	162		-3	3.2 ma.
45	{ Final PP }	230			20. ma
45	{ Output }				



Allied Radio Corp.
Columbia SG-8

Dummy lug

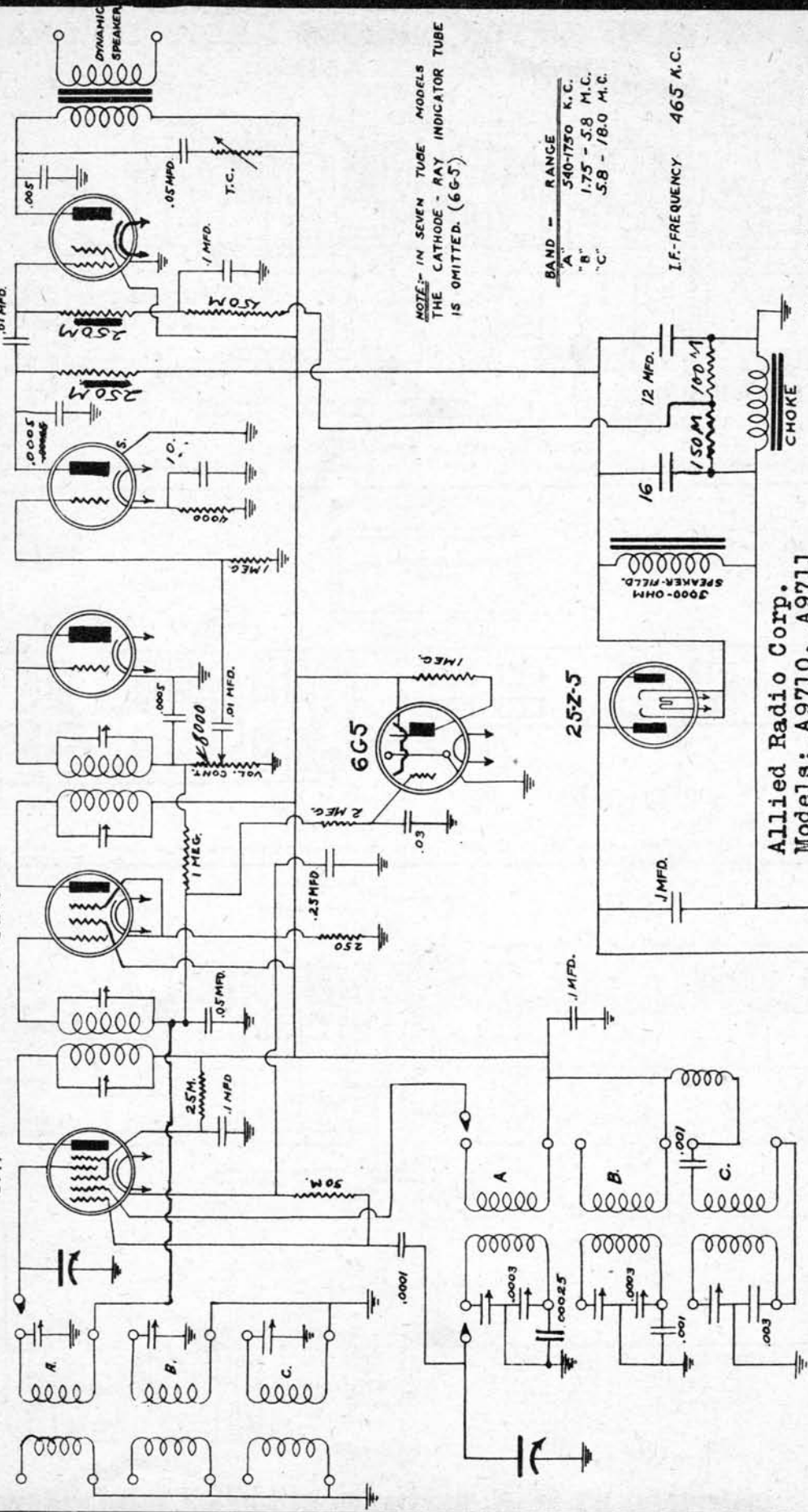
25L6

6K5

6D6

6A7

76



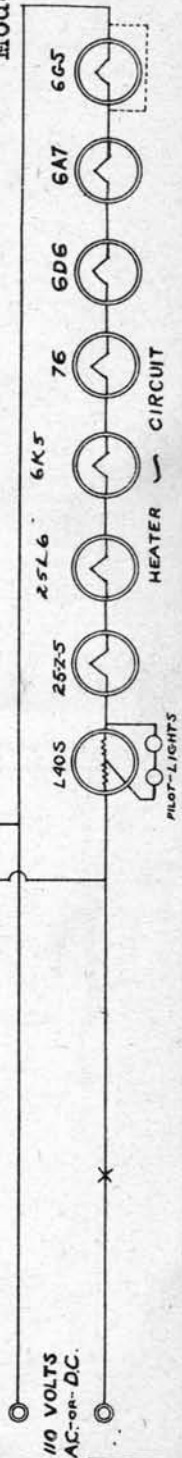
NOTE: IN SEVEN TUBE MODELS THE CATHODE - RAY INDICATOR TUBE IS OMITTED. (6G5)

BAND	RANGE
"A"	540-1750 K.C.
"B"	1.75 - 5.8 M.C.
"C"	5.8 - 18.0 M.C.

I.F. FREQUENCY 465 K.C.

Allied Radio Corp.
Models: A9710, A9711
A9711E, A9712, A9712E

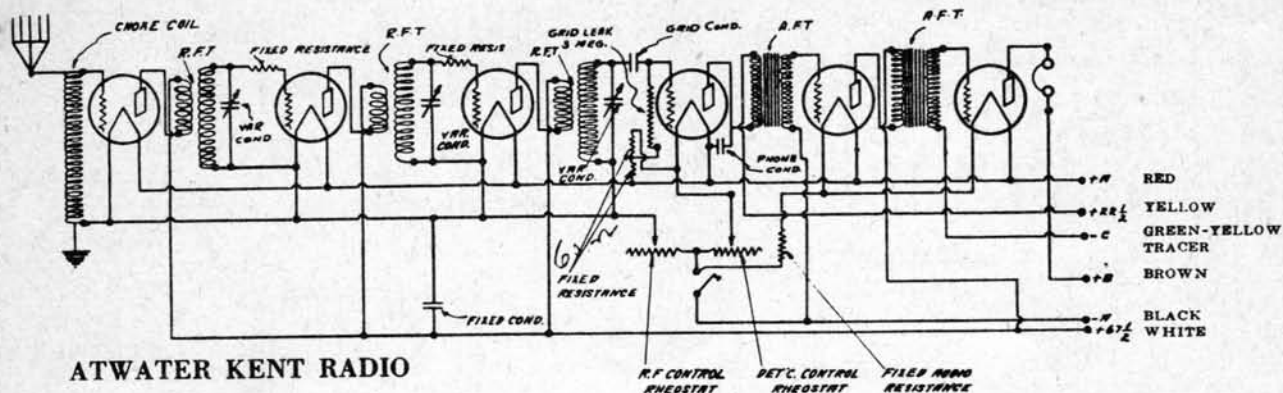
Pacific Radio Corp.
Model 40MB1



110 VOLTS
AC-OR-DC.

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

MODEL 30, 32, 35 AND 48



WIRING DIAGRAM OF MODEL 30, 35 AND 48.

In Model 35, one rheostat controls the three R. F. filaments and a fixed resistor is connected in series with the detector and two A. F. filaments

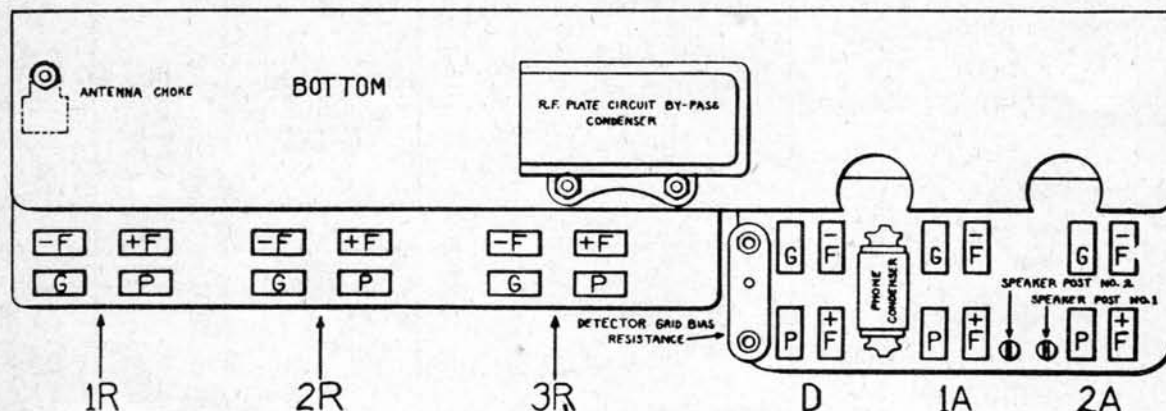


CHART FOR MODEL 30, 35 AND 48.

Early Model 30 Sets have separate R. F. sockets, but the socket contacts are in same relative position as shown in above chart.

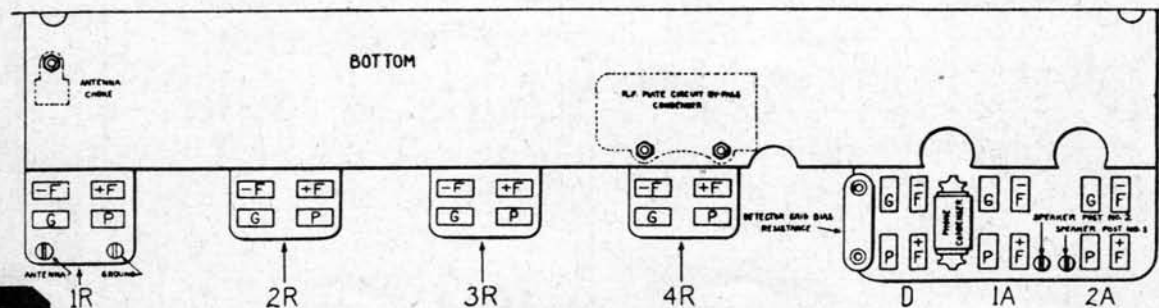
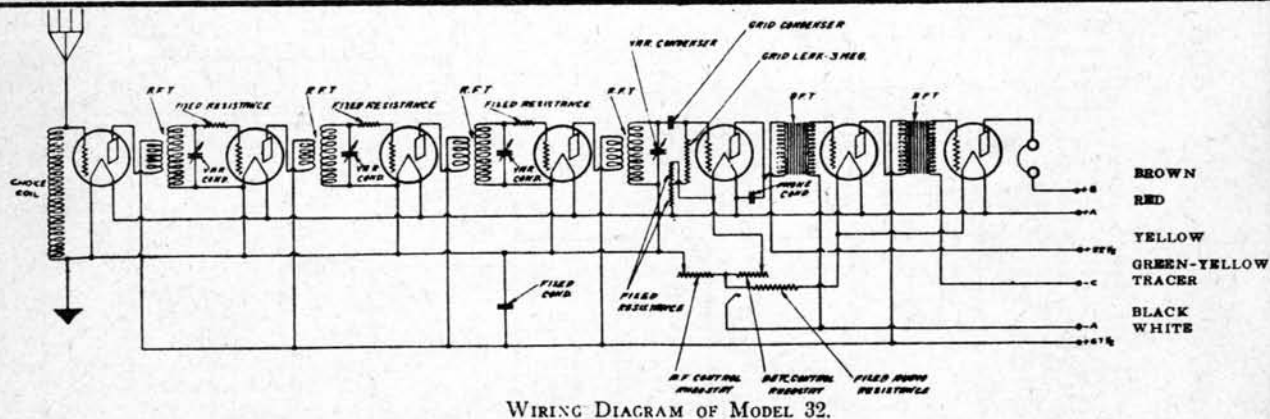
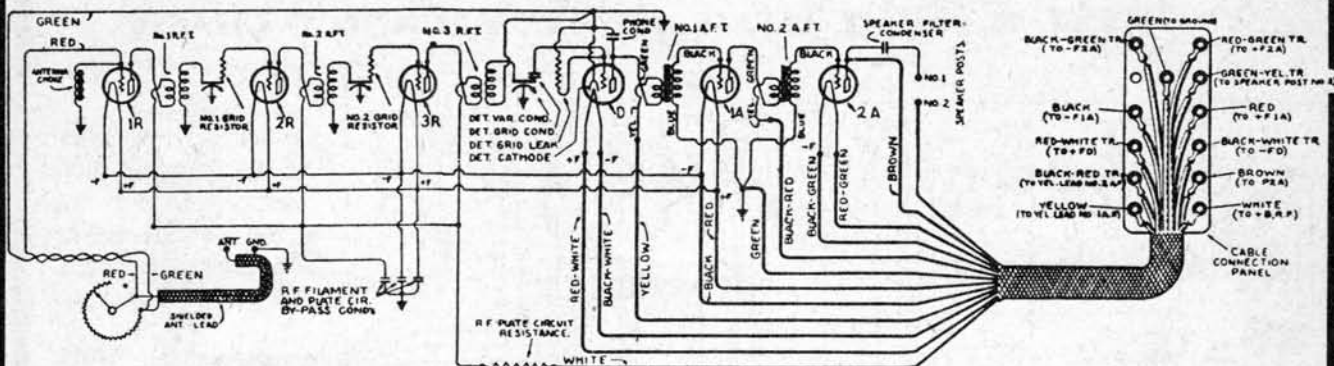


CHART FOR MODEL 32.

COMPILED BY M. N. BEITMAN, SUPREME PUBLICATIONS

MODEL 37, 37-F. 37-C CHASSIS



In Model 37-C the on-off switch is connected to the two terminals on either side of the ground eyelet. A 2nd A. F. filament-shunt resistor is used in the chassis of all Model 37-C receivers.

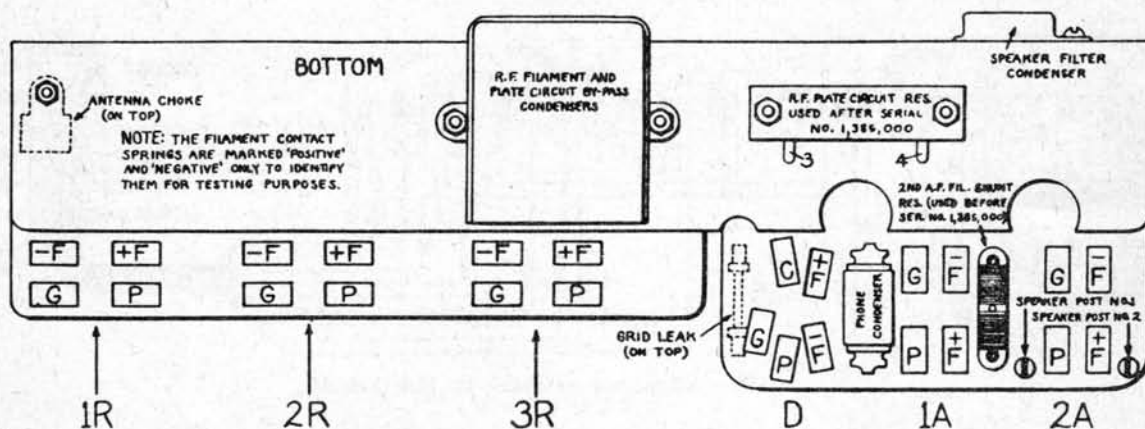
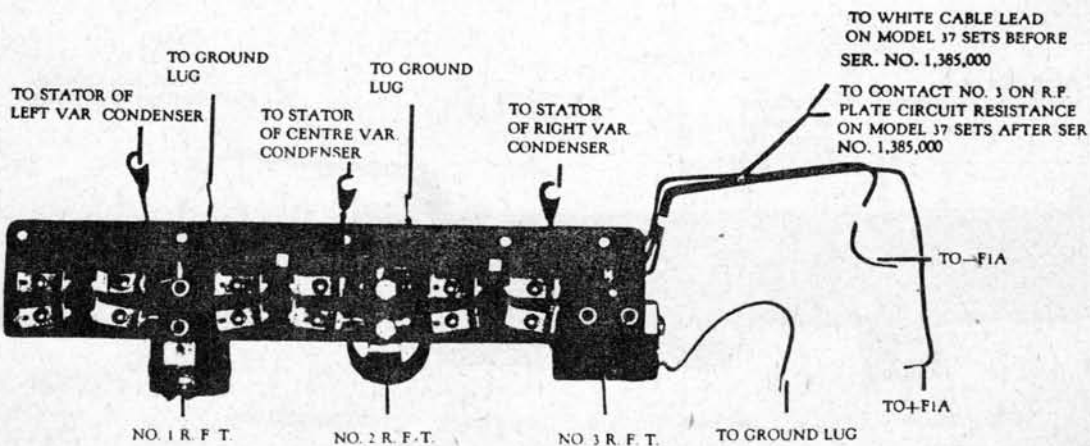


CHART FOR MODEL 37, 37-F, 37-C.

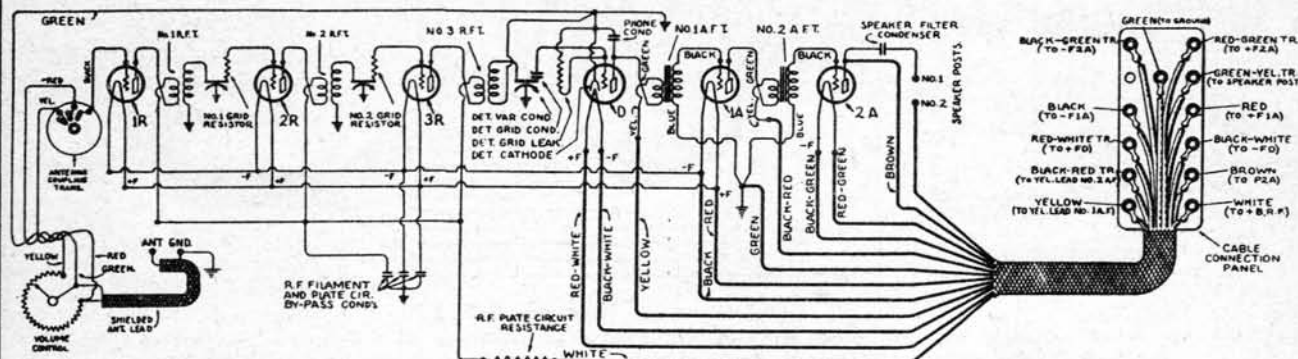


VIEW OF R. F. AMPLIFIER.

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

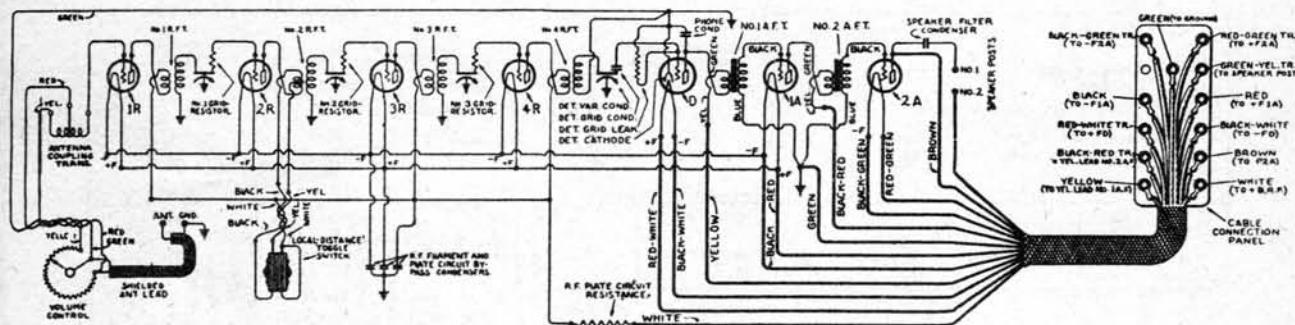
ATWATER KENT RADIO

MODEL 40, 40-F, 42, 42-F, 44, 44-F, 45, 52, 56 AND 57 CHASSIS

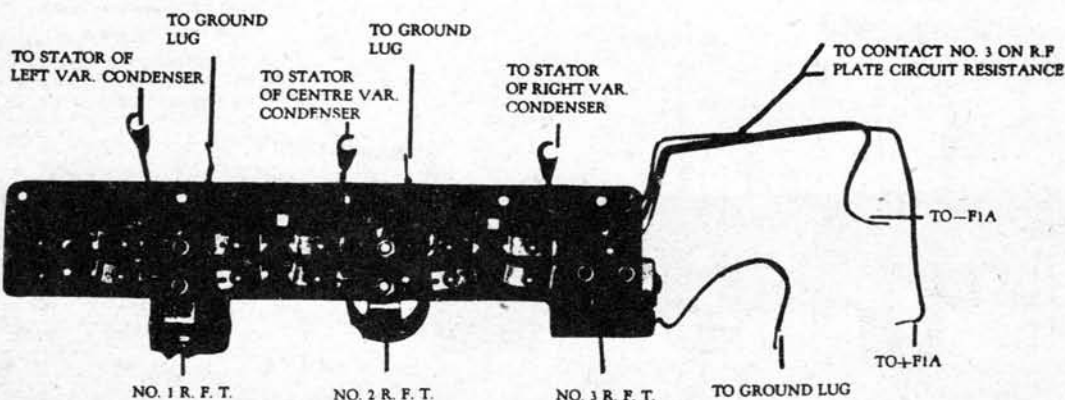


WIRING DIAGRAM OF MODEL 40, 40-F, 42, 42-F, 52, 56 AND 57.

Model 52 does not have the shielded antenna lead, but is provided with two twenty-foot leads which are connected to the volume control, black antenna and black-green tracer for ground. Model 56 and 57 have antenna and ground posts at the bottom of the cabinet.



WIRING DIAGRAM OF MODEL 44, 44-F AND 45.



VIEW OF R.F. AMPLIFIER ASSEMBLY IN MODEL 40, 40-F, 42, 42-F, 52, 56 AND 57.

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

ATWATER KENT RADIO

MODEL 43, 46, 47 AND 53

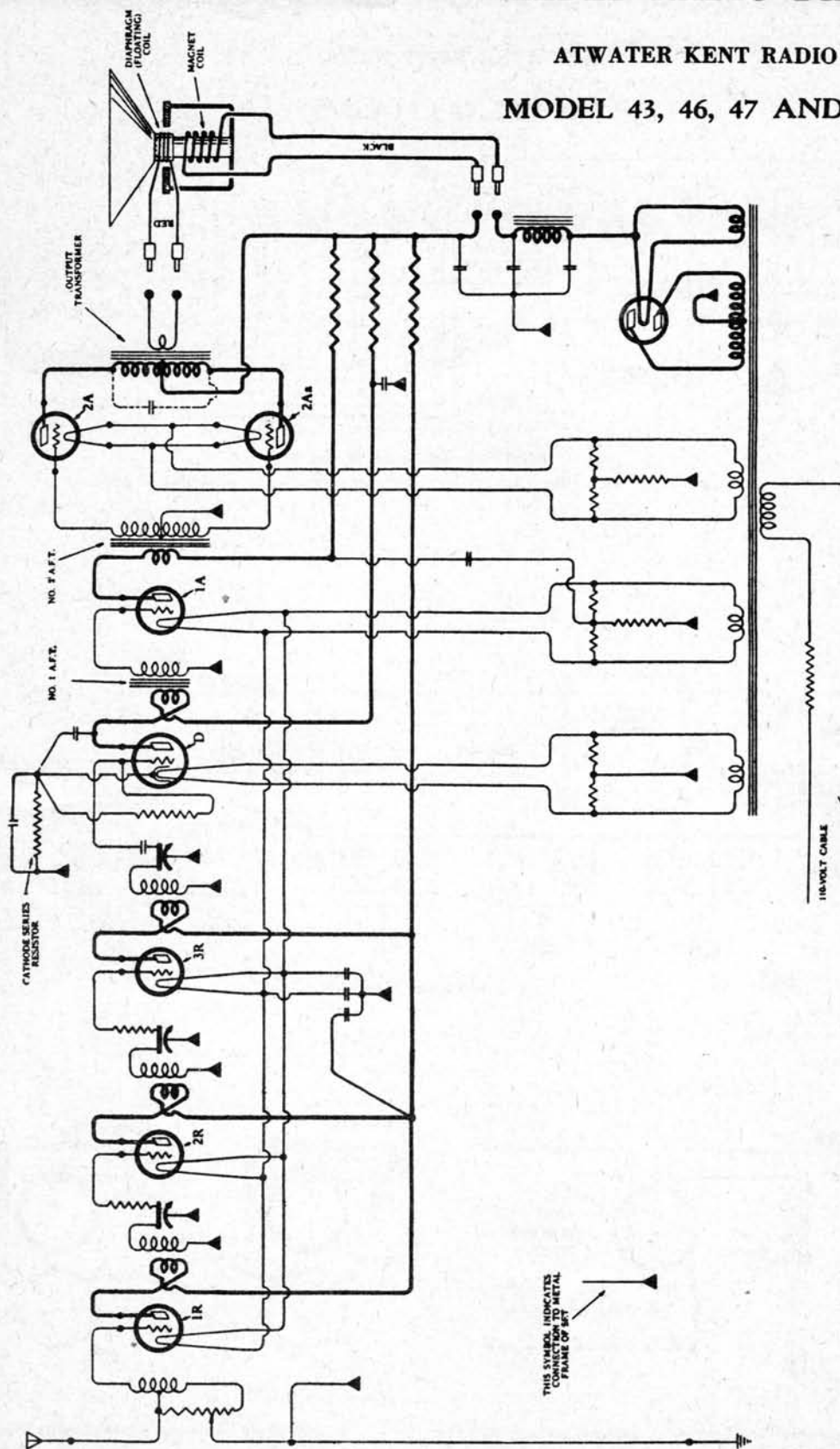
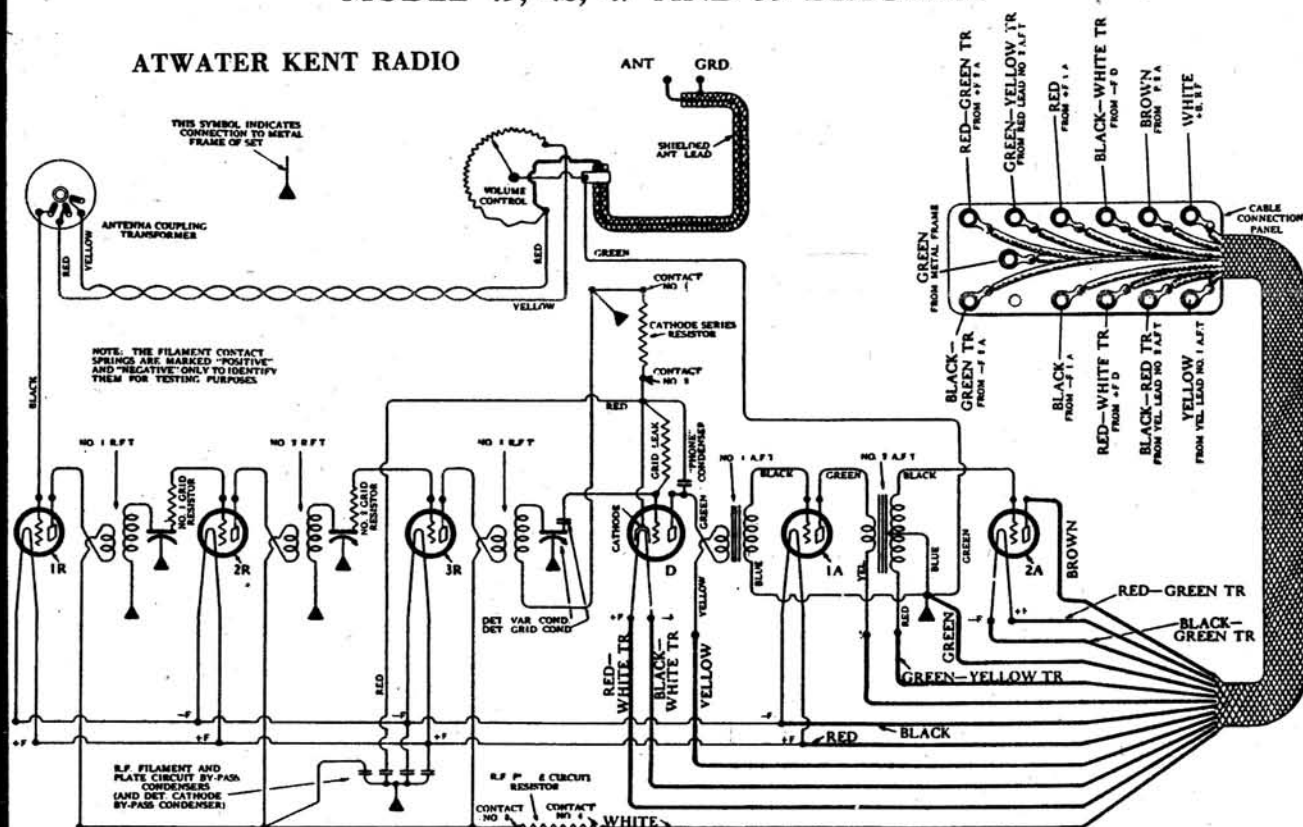


DIAGRAM OF MODEL 43, 46 AND 53. (The output transformer is sealed in the power unit.)
Model 47 is similar to this but has one extra stage of R. F. amplification and a local-distance switch similar to that in Model 44.

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

MODEL 43, 46, 47 AND 53 DIAGRAM

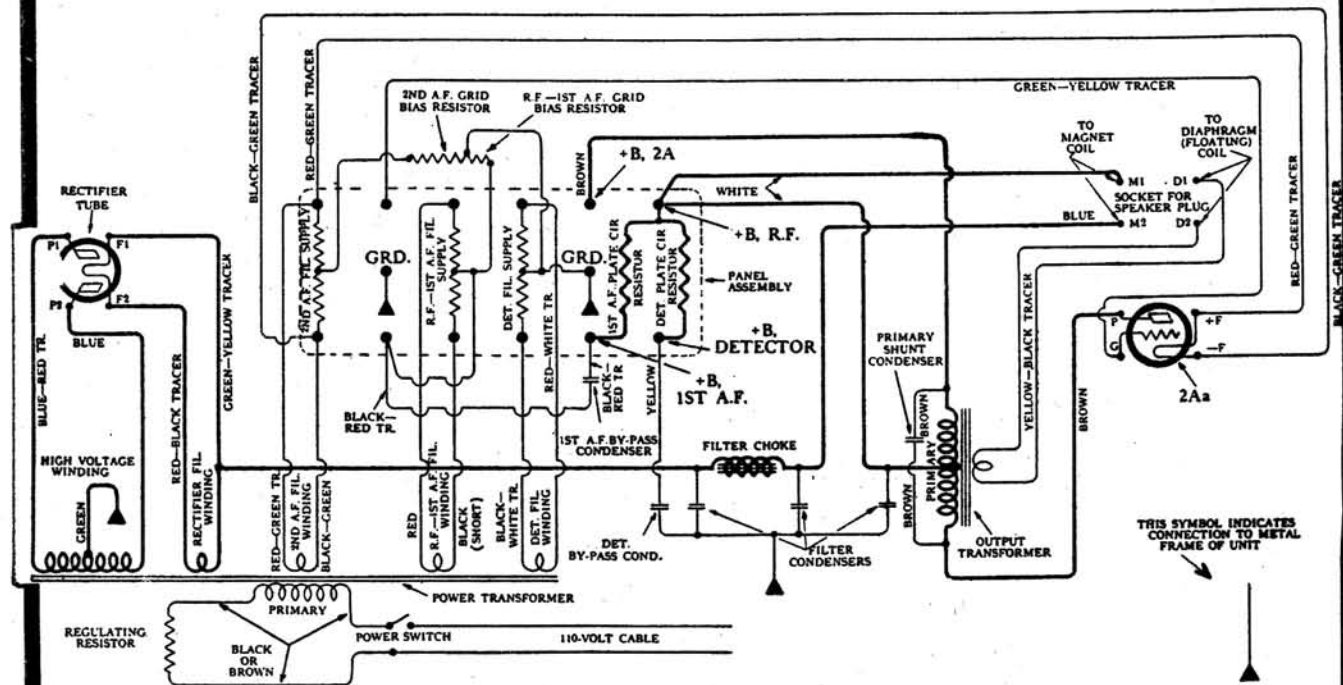
ATWATER KENT RADIO



WIRING DIAGRAM OF MODEL 43, 46 AND 53.

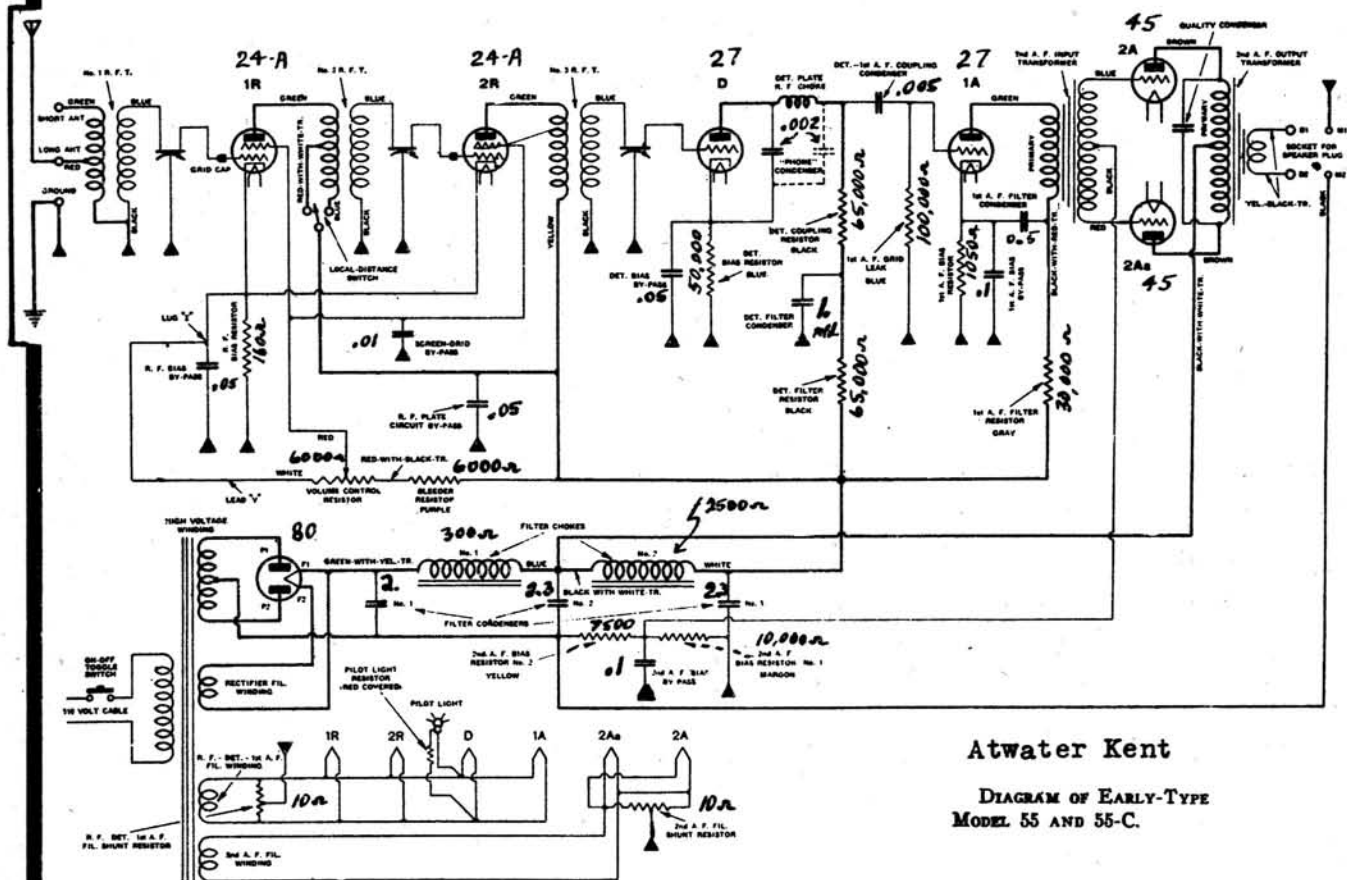
The +B, 1st A. F. cable lead is black with a red tracer.

Model 47 is similar but has one additional stage of R. F. amplification and a local-distance switch like that on Model 44.



WIRING DIAGRAM OF POWER UNIT IN MODEL 43.

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



Atwater Kent

DIAGRAM OF EARLY-TYPE
MODEL 55 AND 55-C.

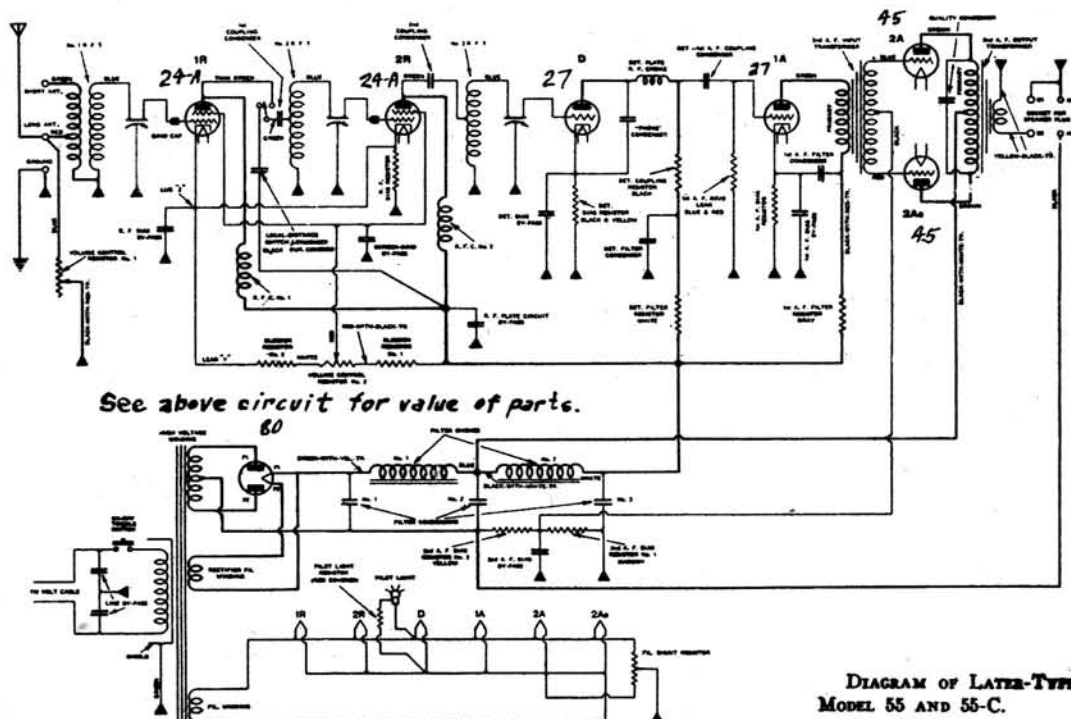
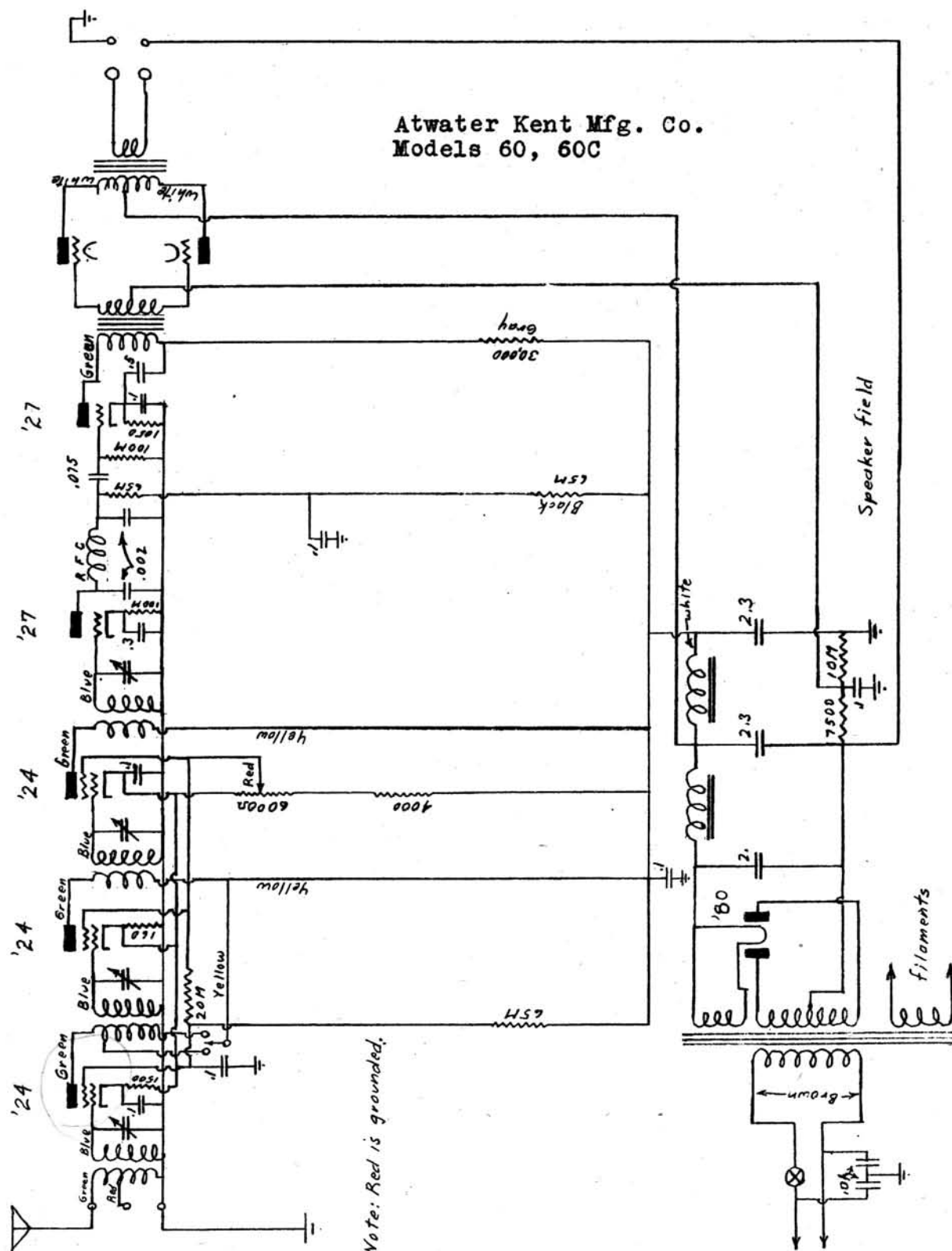


DIAGRAM OF LATER-TYPE
MODEL 55 AND 55-C.

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



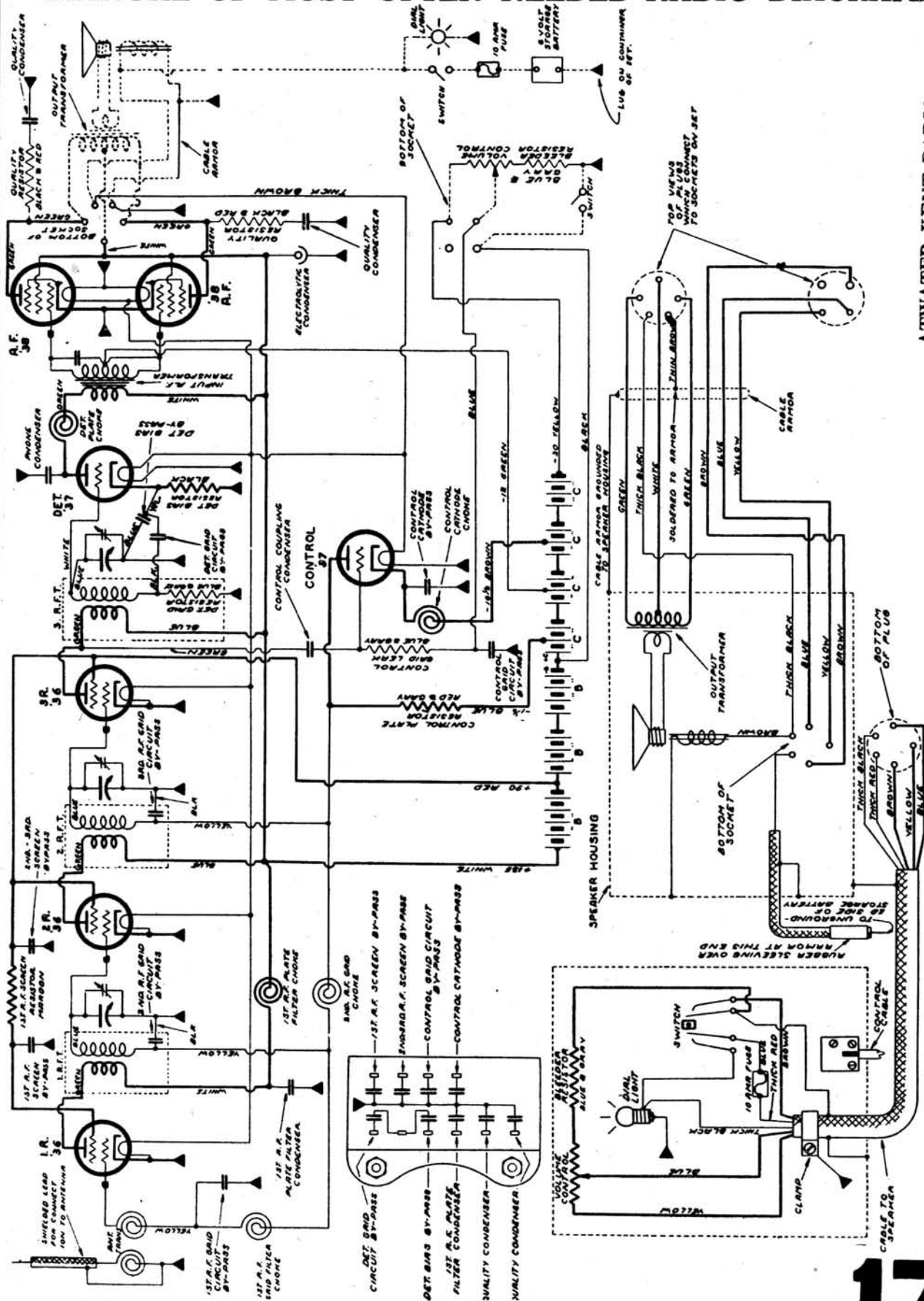
Model 70

WIRING DIAGRAM OF TYPE F CHASSIS.



COMPILED BY M. N. BEITMAN, SUPREME PUBLICATIONS

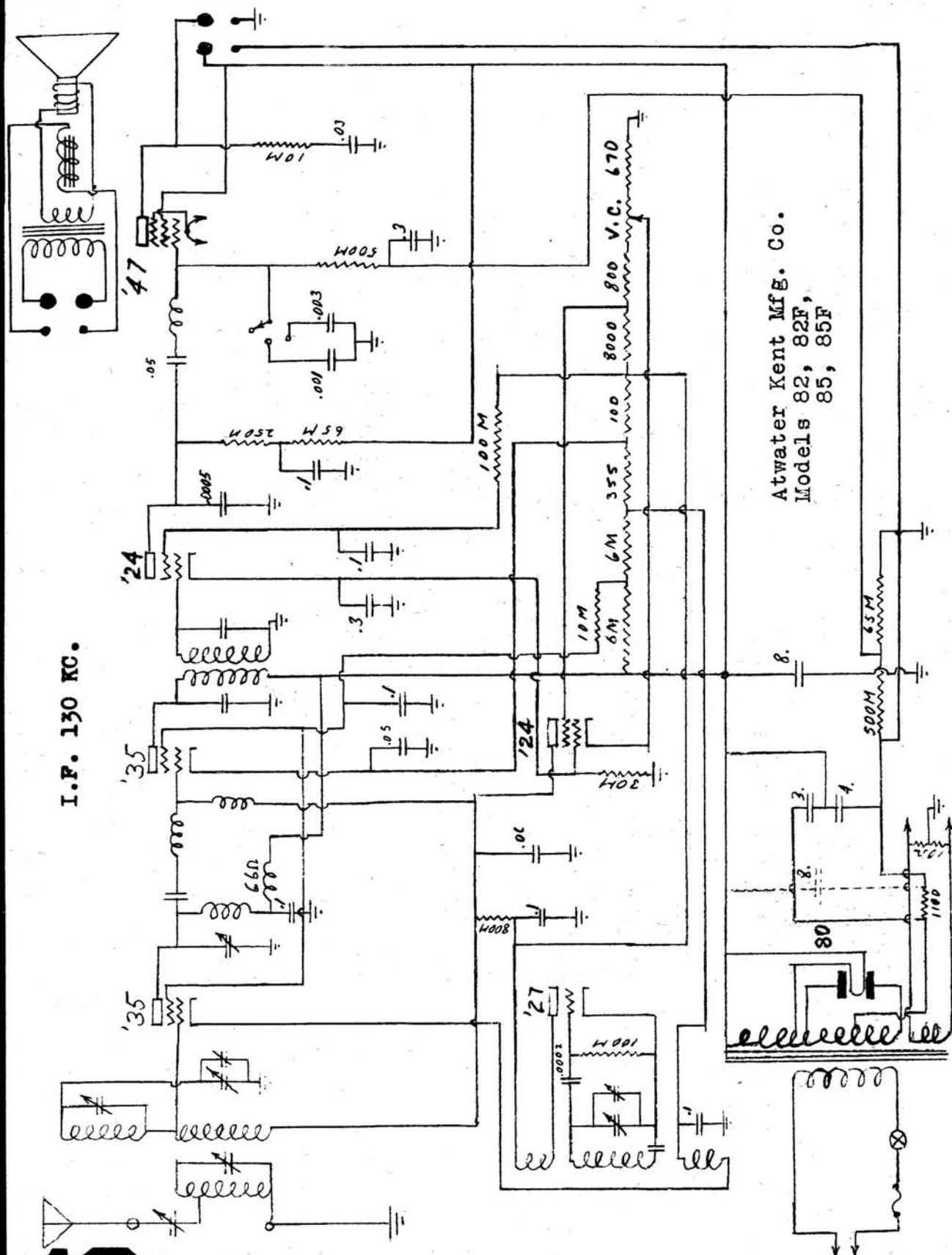
MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



ATWATER KENT RADIO

DIAGRAM OF MODEL 81 MOTOR CAR RADIO (BATTERY-OPERATED).

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



Atwater Kent Mfg. Co.
Models 82, 82F,
85, 85F

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

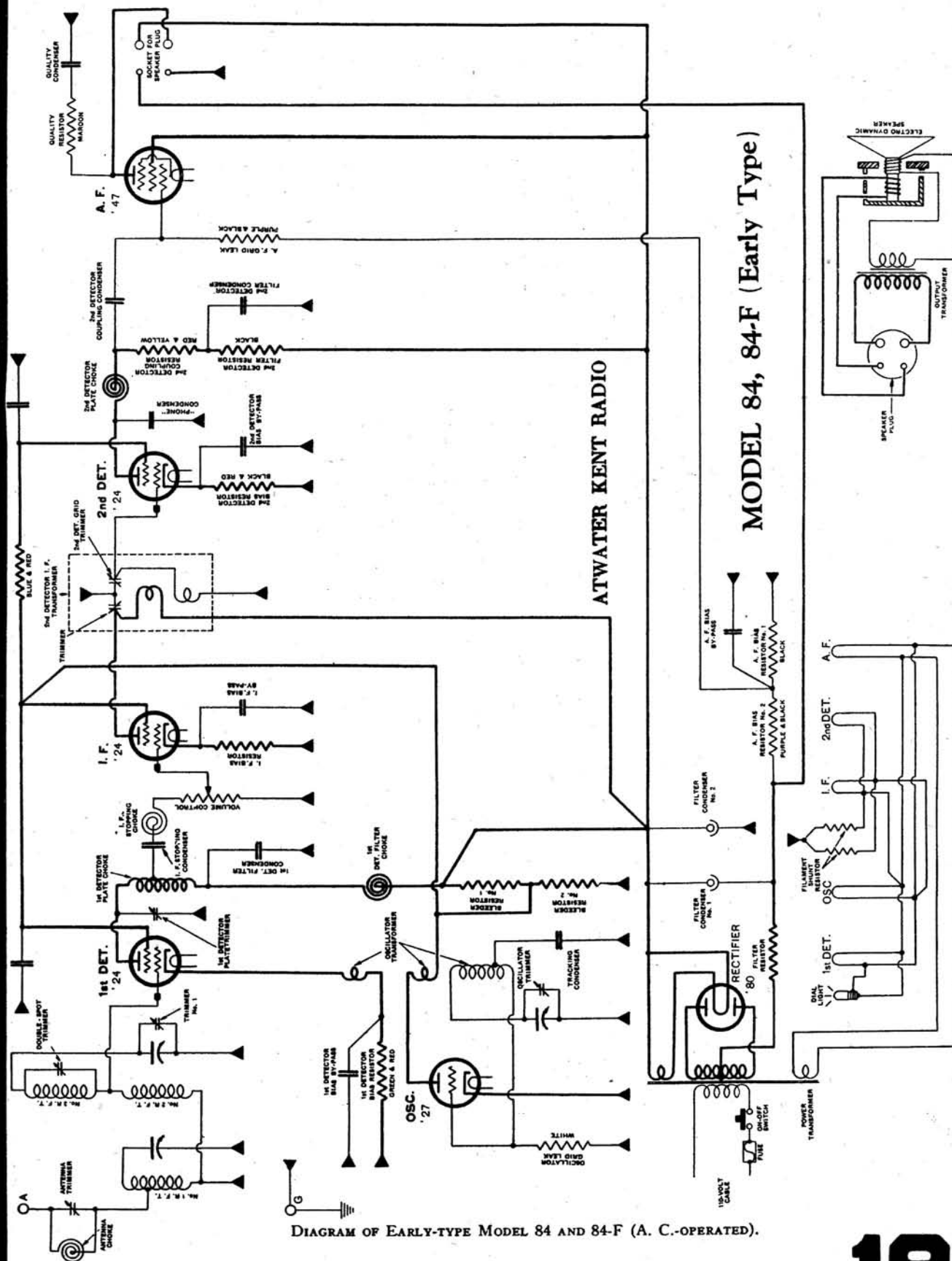
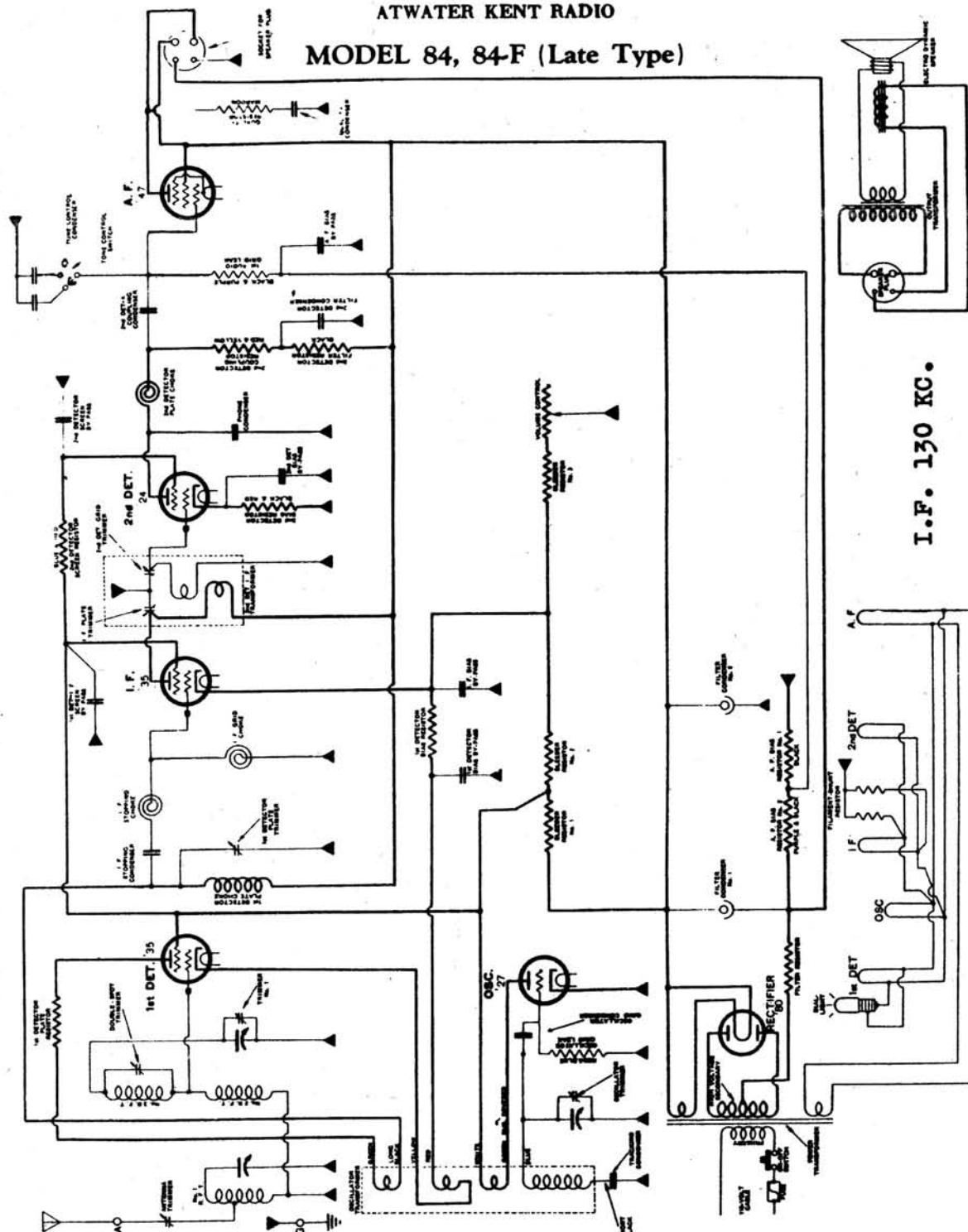


DIAGRAM OF EARLY-TYPE MODEL 84 AND 84-F (A. C.-OPERATED).

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

ATWATER KENT RADIO MODEL 84, 84-F (Late Type)

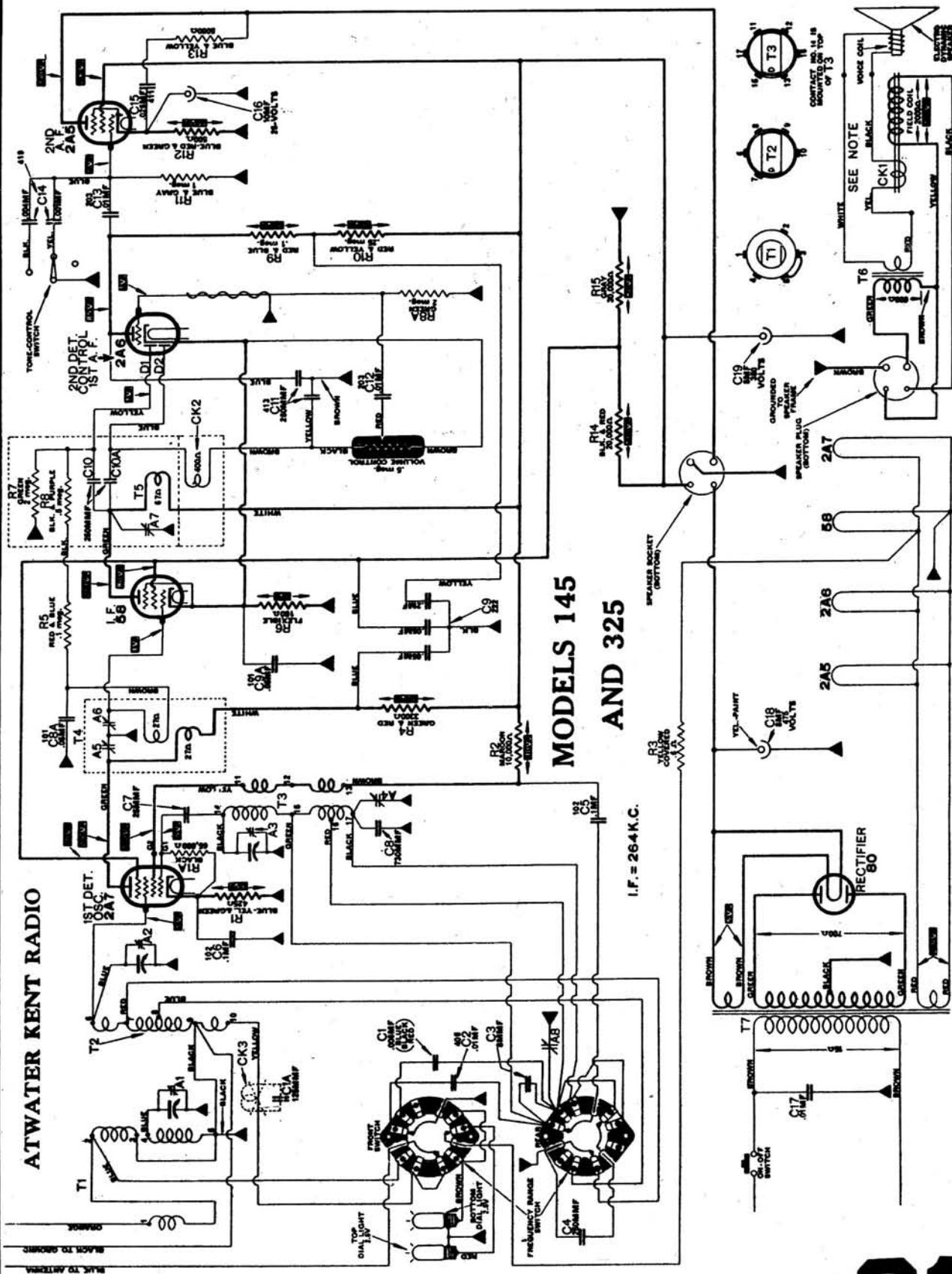


I.F. 130 KC.

DIAGRAM OF LATE-TYPE MODEL 84 AND 84-F (A. C.-OPERATED).

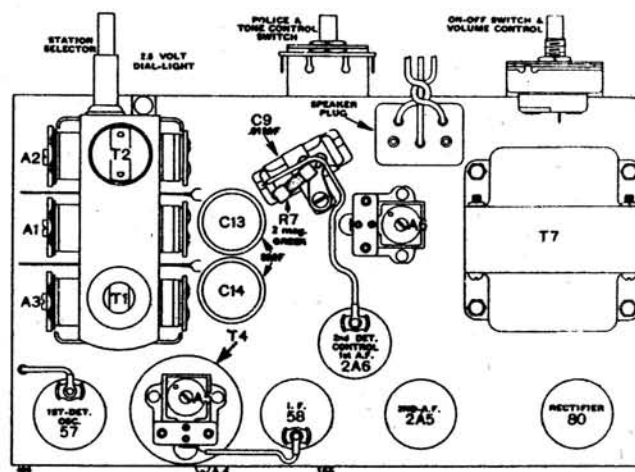
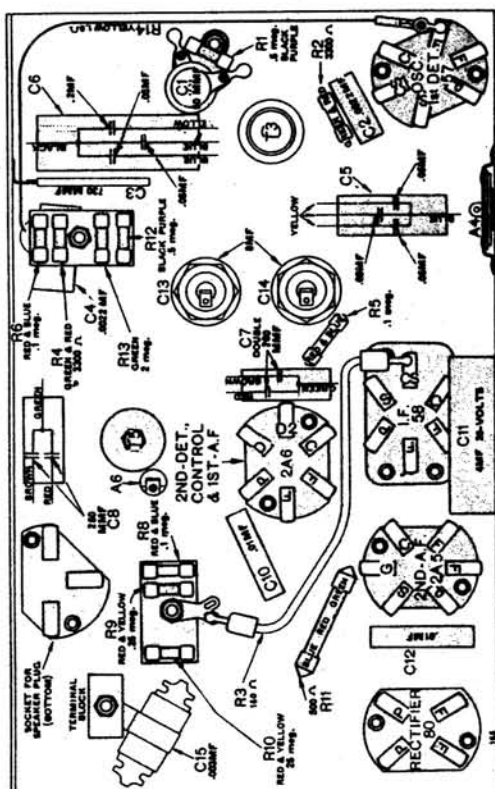
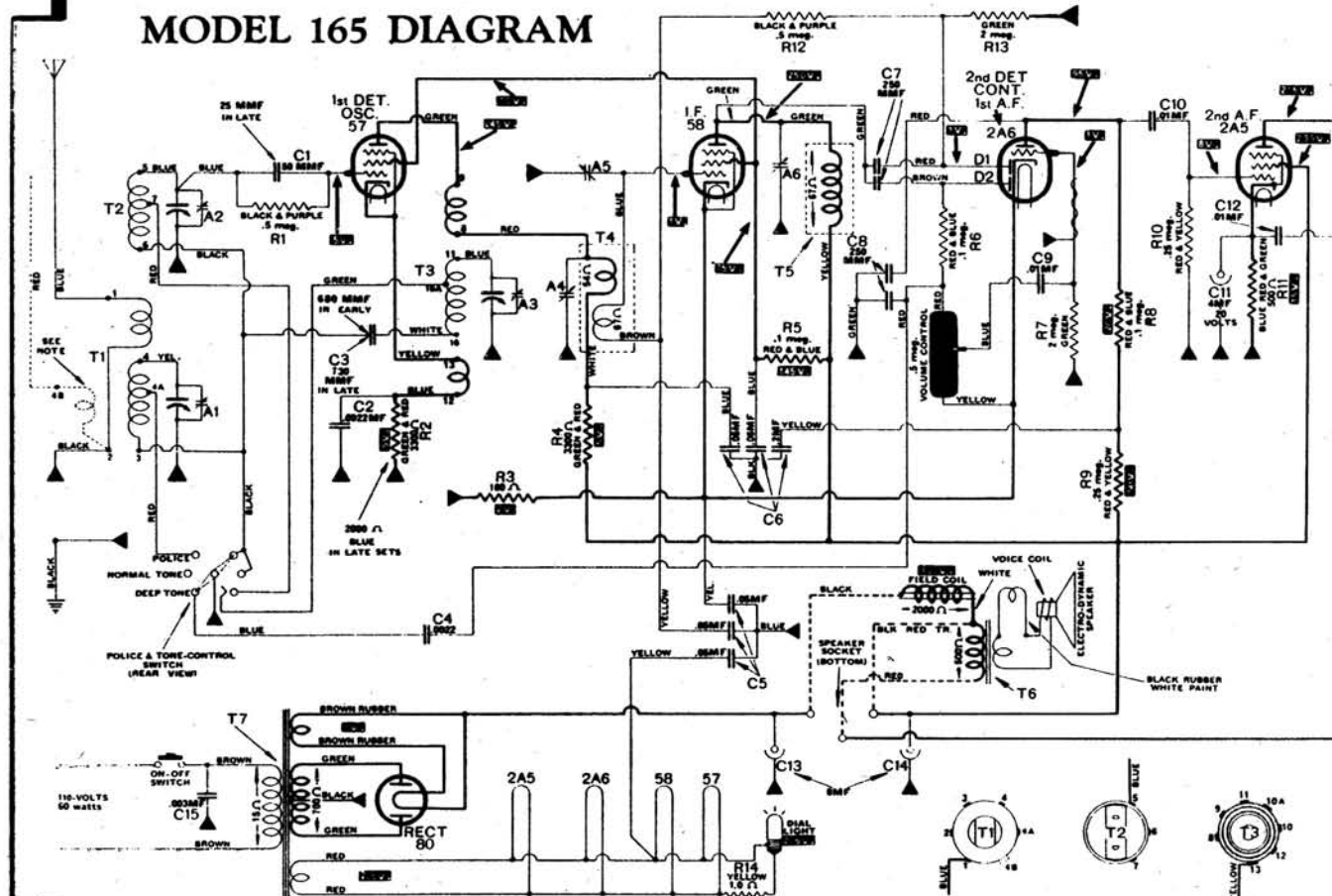
A few late-type Model 84 and 84-F receivers have slightly different oscillator transformers, as explained in the notes accompanying the parts list for these sets. The filter resistor shown in the above diagram is NOT used in Model 84-F. This set has a 1st-detector plate filter choke and condenser not shown in the diagram.

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

MODEL 165 DIAGRAM



In late type 165, the 1st-detector bias resistor R2 is 200K ohms, $\frac{1}{2}$ watt (blue).

In a few early 165 sets, the tracking condenser C3 is 680MMF.

In late sets, C1 is 25MMF instead of 50MMF.

The additional primary, shown in dotted lines on No. 1 R.F.T., is used in some 165 sets.

I.F. 262.5 KC.

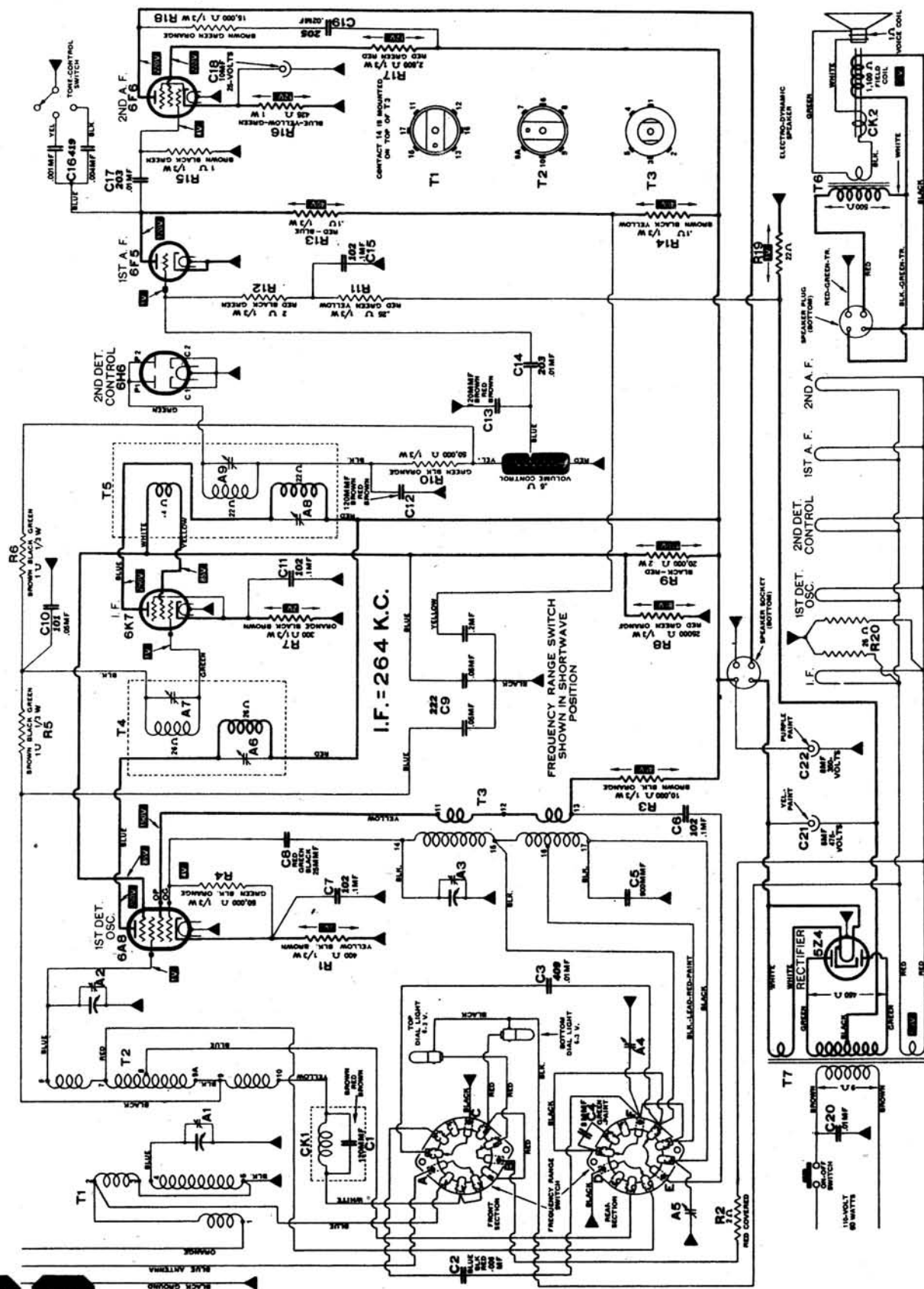
ATWATER KENT RADIO



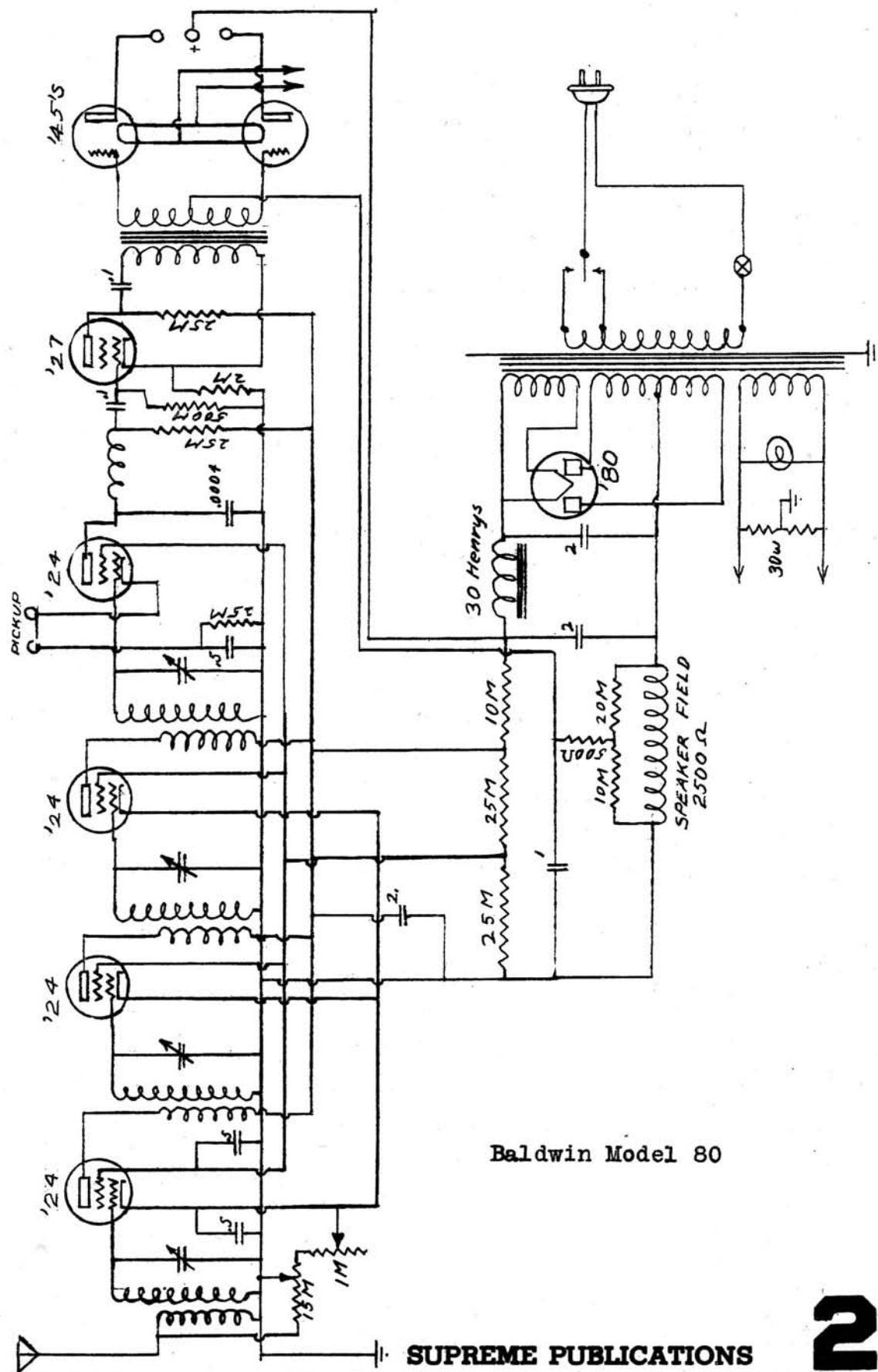
COMPILED BY M. N. BEITMAN, SUPREME PUBLICATIONS

MODELS 856 AND 976

ATWATER KENT RADIO

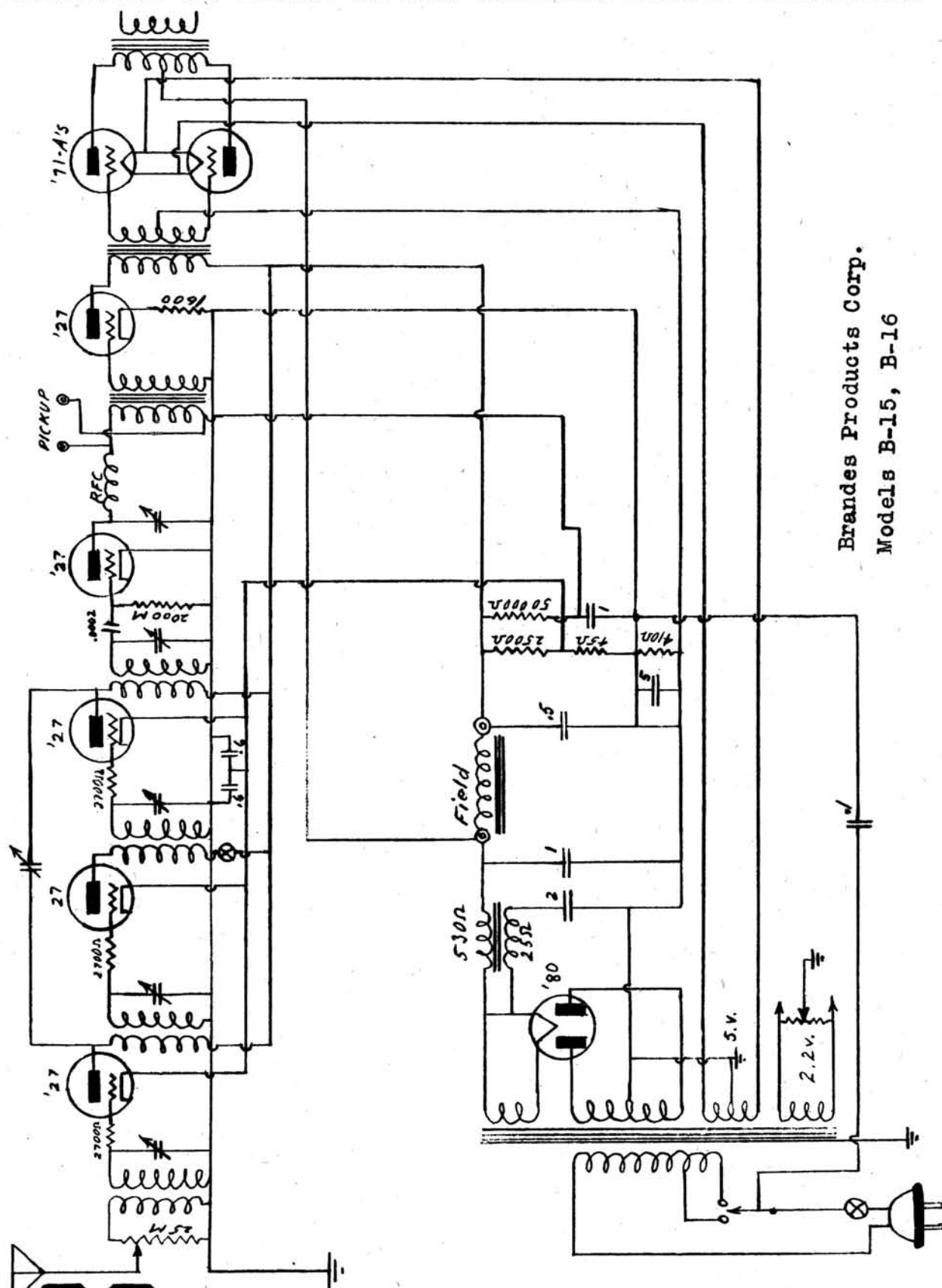


MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



Baldwin Model 80

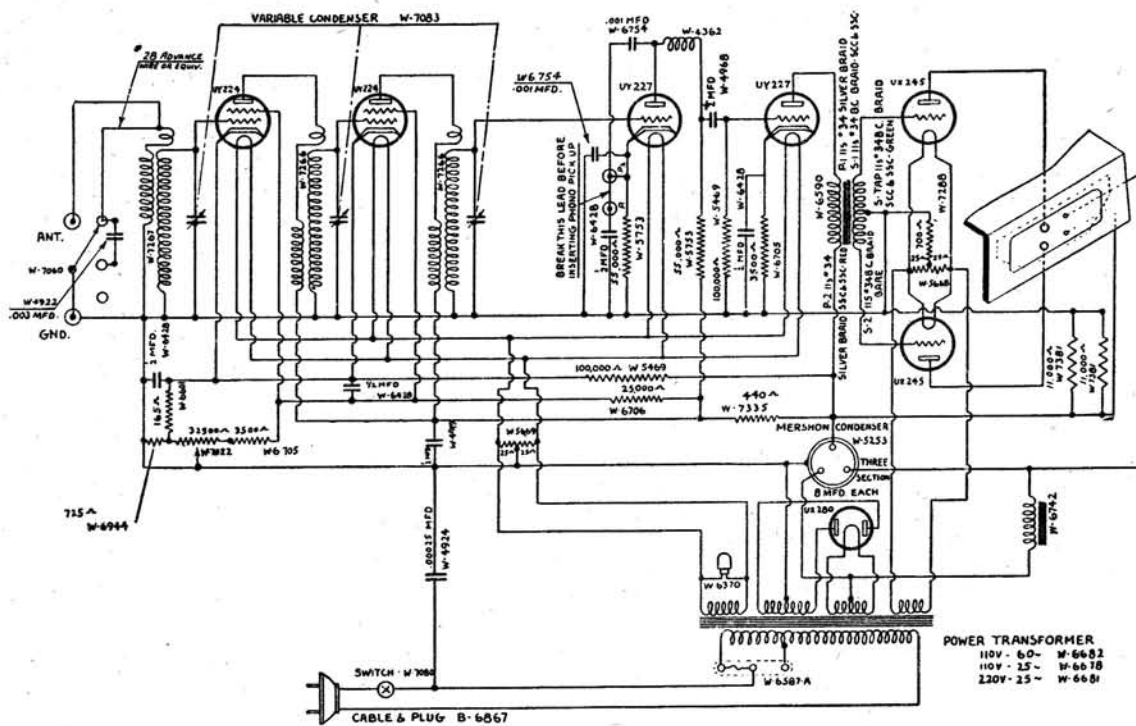
MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



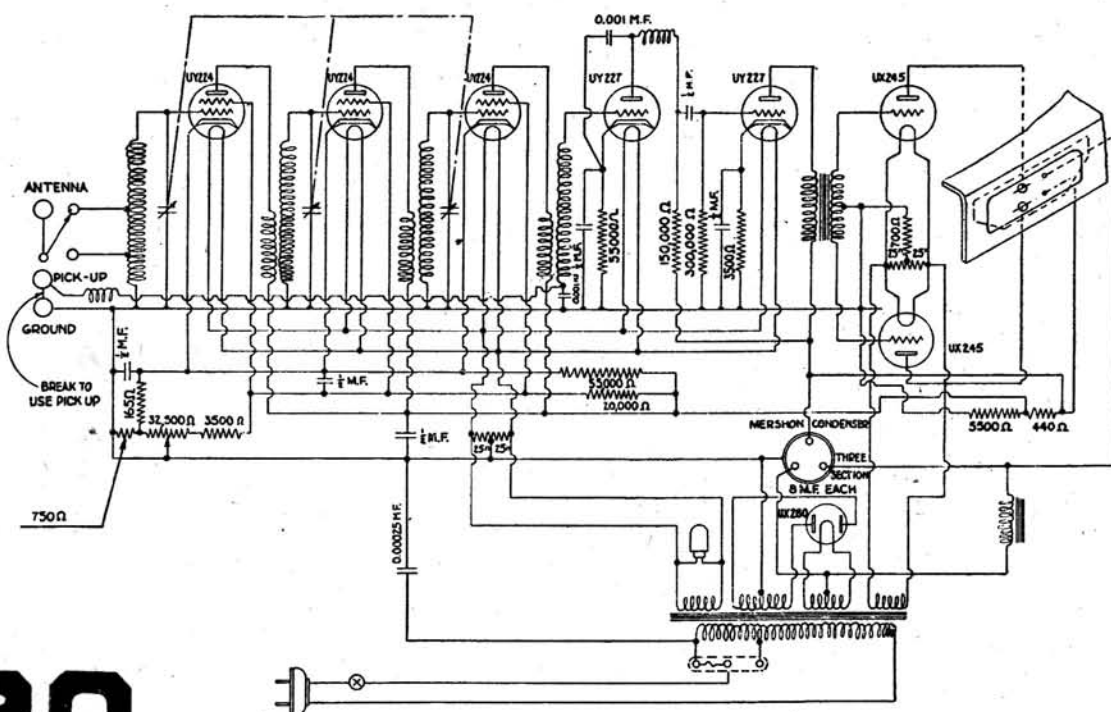
Brandes Products Corp.
Models B-15, B-16

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

MODELS 30S, 31S, 33S, 34S.



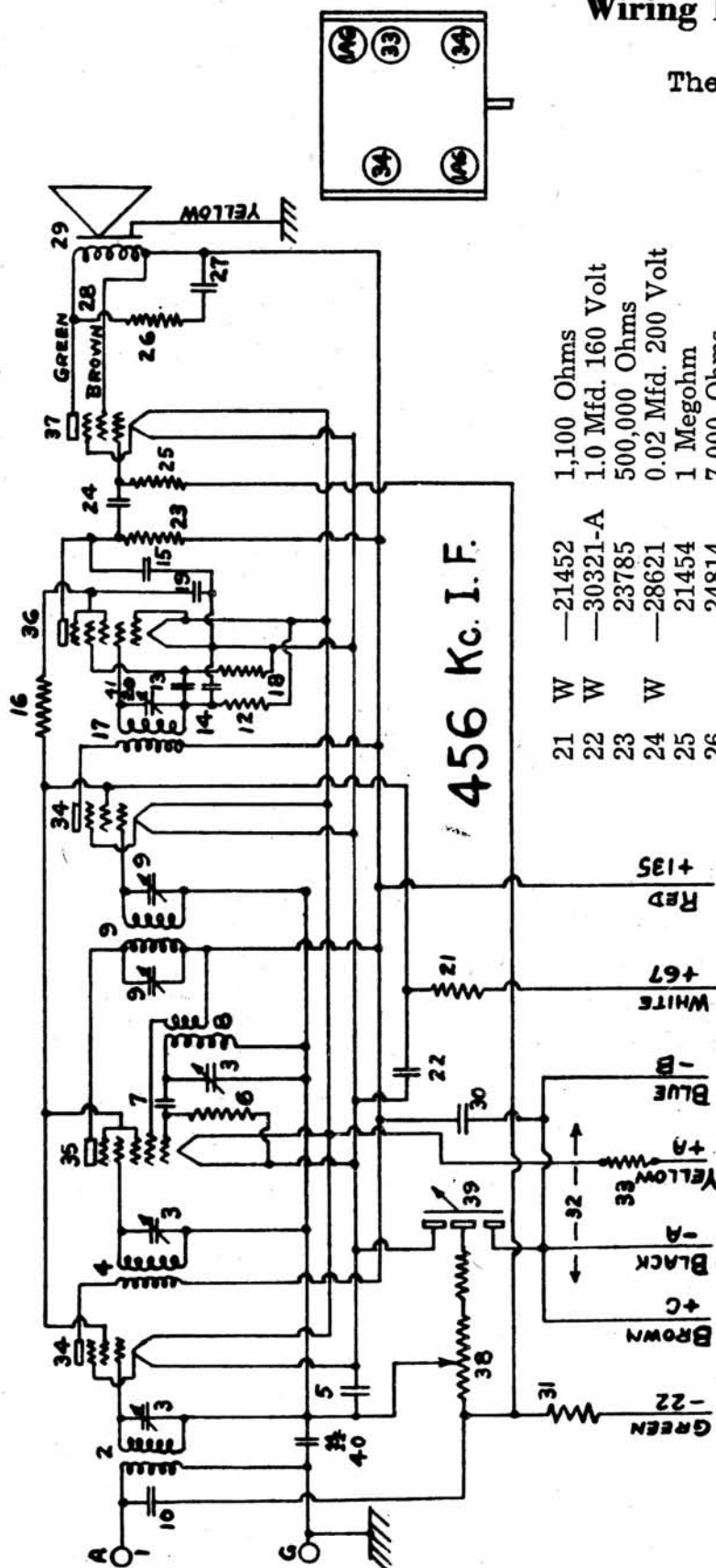
Crosley Corp., Cincinnati, Ohio

Models 40S, 41S, 42S, 82S

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

Wiring Diagram For Model 5B3

The Crosley Corp.



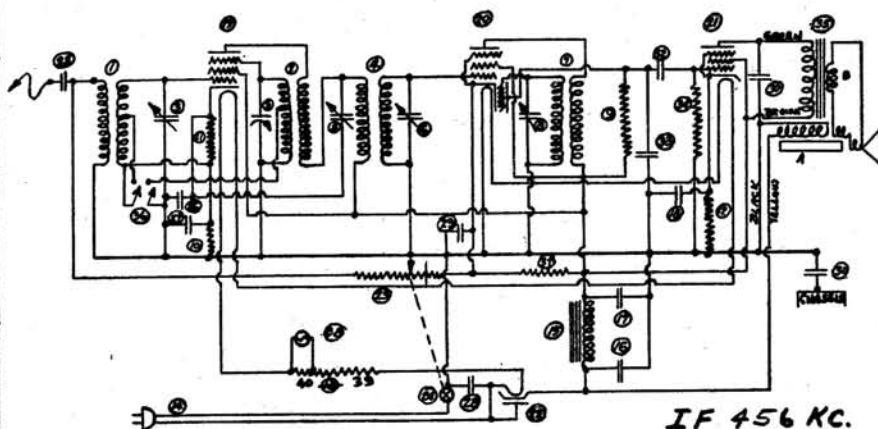
21	W	—21452	1,100 Ohms
22	W	—30321-A	1.0 Mfd. 160 Volt
23	W	23785	500,000 Ohms
24	W	—28621	0.02 Mfd. 200 Volt
25		21454	1 Megohm
26		24814	7,000 Ohms
27	W	—28619	.006 Mfd.
28	W	—27933	Speaker Cable
29		30418	336-3B Speaker
30	W	—29910-A	0.25 Mfd. 200 Volt
31		27121	5,000 Ohms
32	G2	—29237	Battery Cable
33	G2	—23300	Air Cell Resistor .53 Ohms
34	G31	—27975	34 Socket
35	G55	—27975	1A6 Socket
36	G4	—33070	1A6 Flex. Socket
37	G36	—27975	33 Socket
38	W	—32649	{ Volume Cont. 10,000 Ohms
39			{ Switch 3. P. S. T.
40	W	—24049-B	0.1 Mfd. 200 Volt

Figures in first column correspond to figures in diagram

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

Crosley Model 172

1	6B-2499	ANTENNA COIL
2	6B-2499	OSCILLATOR COIL
3	D-2499	GRID CONDENSER
4	GT-2499	1/4 I.F. TRANS.
5	6B-2499	1/4 I.F. TUNING COND.
6	6B-2499	1/4 I.F. TUNING COND.
7	6B-2499	1/4 I.F. TUNING COND.
8	6B-2499	1/4 I.F. TUNING COND.
9	2499	3 MEG.
10	2499	2700 Ω
11	W-2499	150 Ω
12	W-2499	750 Ω
13	W-2499	800 Ω
14	W-2499	800 Ω
15	W-2499	800 Ω
16	W-2499	800 Ω
17	W-2499	800 Ω
18	W-2499	800 Ω
19	W-2499	800 Ω
20	W-2499	800 Ω
21	W-2499	800 Ω
22	W-2499	800 Ω
23	W-2499	800 Ω
24	W-2499	800 Ω
25	W-2499	800 Ω
26	W-2499	800 Ω
27	W-2499	800 Ω
28	W-2499	800 Ω
29	W-2499	800 Ω
30	W-2499	800 Ω
31	W-2499	800 Ω
32	W-2499	800 Ω
33	W-2499	800 Ω
34	W-2499	800 Ω
35	W-2499	800 Ω
36	W-2499	800 Ω
37	W-2499	800 Ω
38	W-2499	800 Ω
39	W-2499	800 Ω
40	W-2499	800 Ω
41	W-2499	800 Ω
42	W-2499	800 Ω
43	W-2499	800 Ω
44	W-2499	800 Ω
45	W-2499	800 Ω



Control Grid Voltages

Pentode ...0.5 to 1.5
I. F.1.5 to 2.5 (20-30 vol. cont. off)
1st Det. ...5.5 to 7.5
2nd Det. ...4.0 to 6.0

Filament Voltages

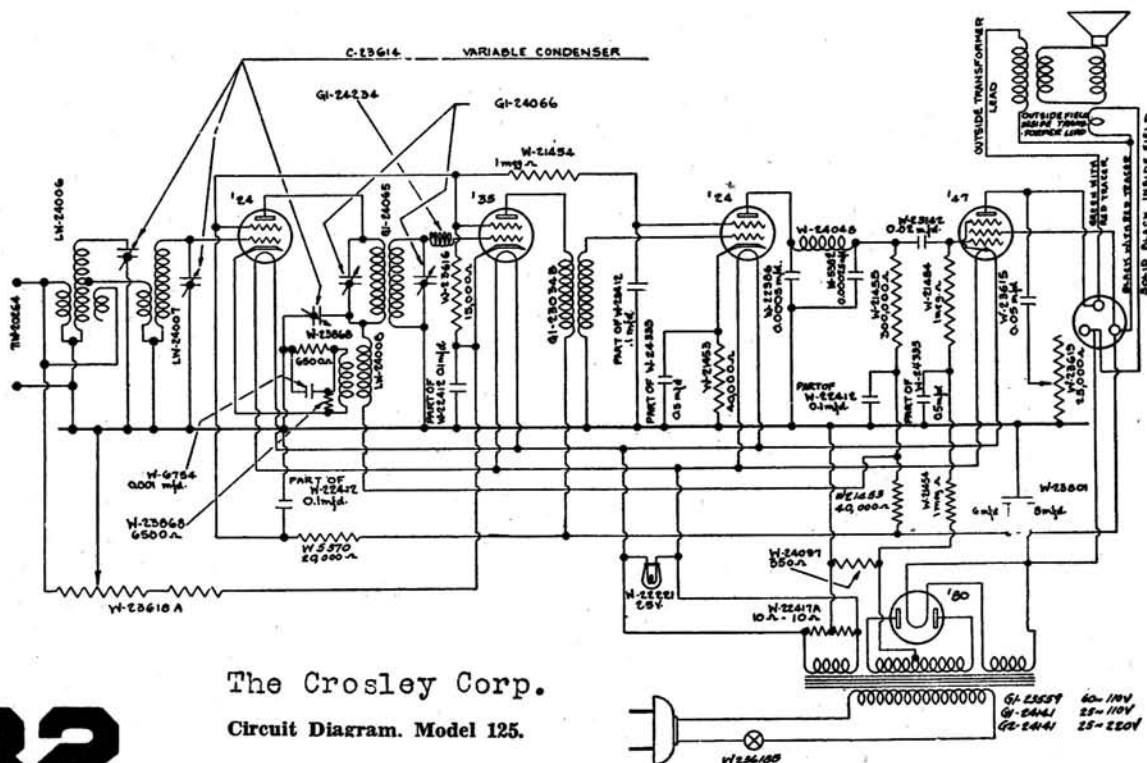
All tubes but rectifier2.3 to 2.5
Rectifier tube4.6 to 5.0

Screen Grid Voltages

Pentode ...200 to 230
I. F.75 to 95
1st Det. ..75 to 95
2nd Det. 15 to 25 (250V scale), 3-8 (50V scale)

Plate Voltages

Pentode 200 to 230
I. F.200 to 230
1st Det. ...160 to 180
2nd Det. 75 to 90 (250V scale), 20-30 (50V scale)



The Crosley Corp.

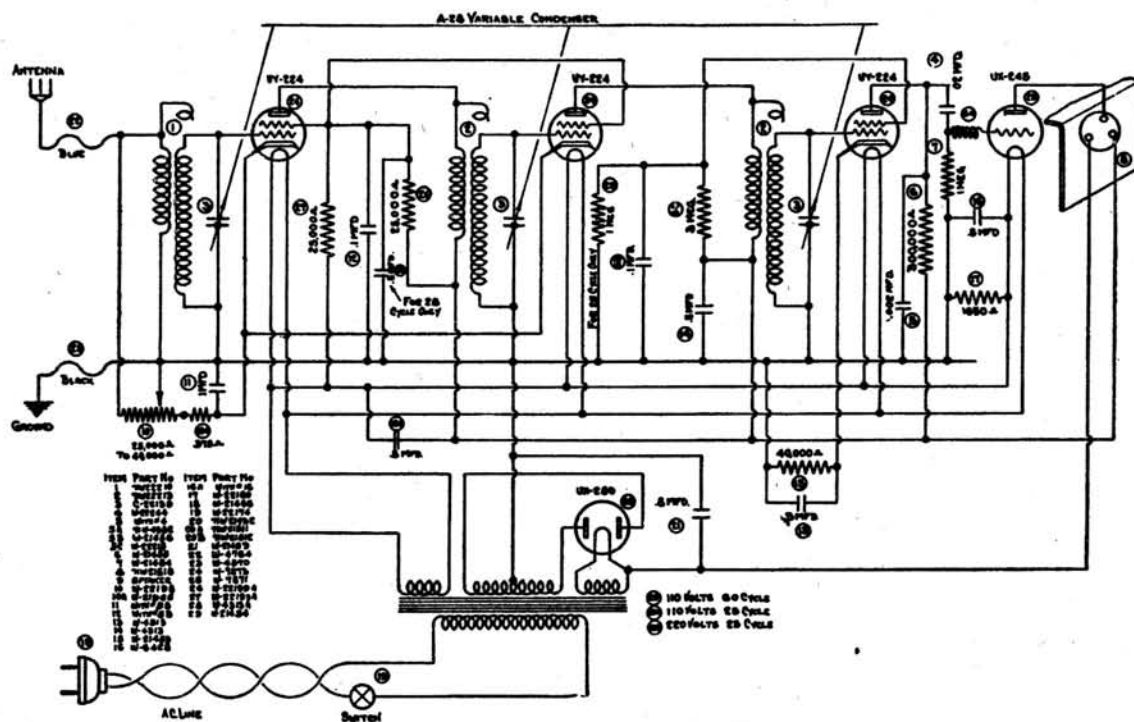
Circuit Diagram. Model 125.

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MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

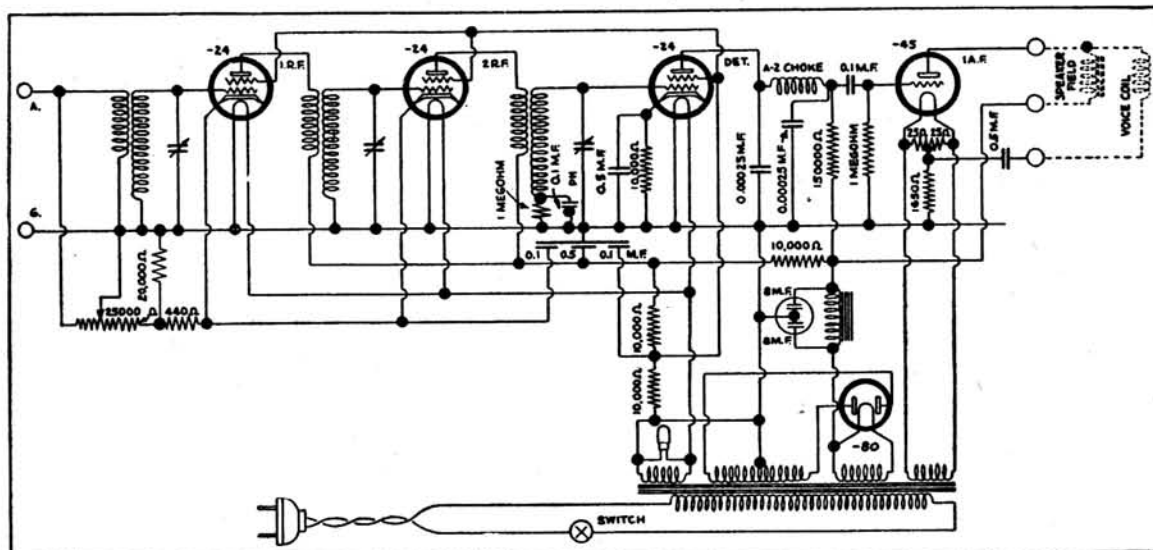
MODEL 48



Circuit Diagram Model 48

The Crosley Corp.

Models 53, 54 and 57

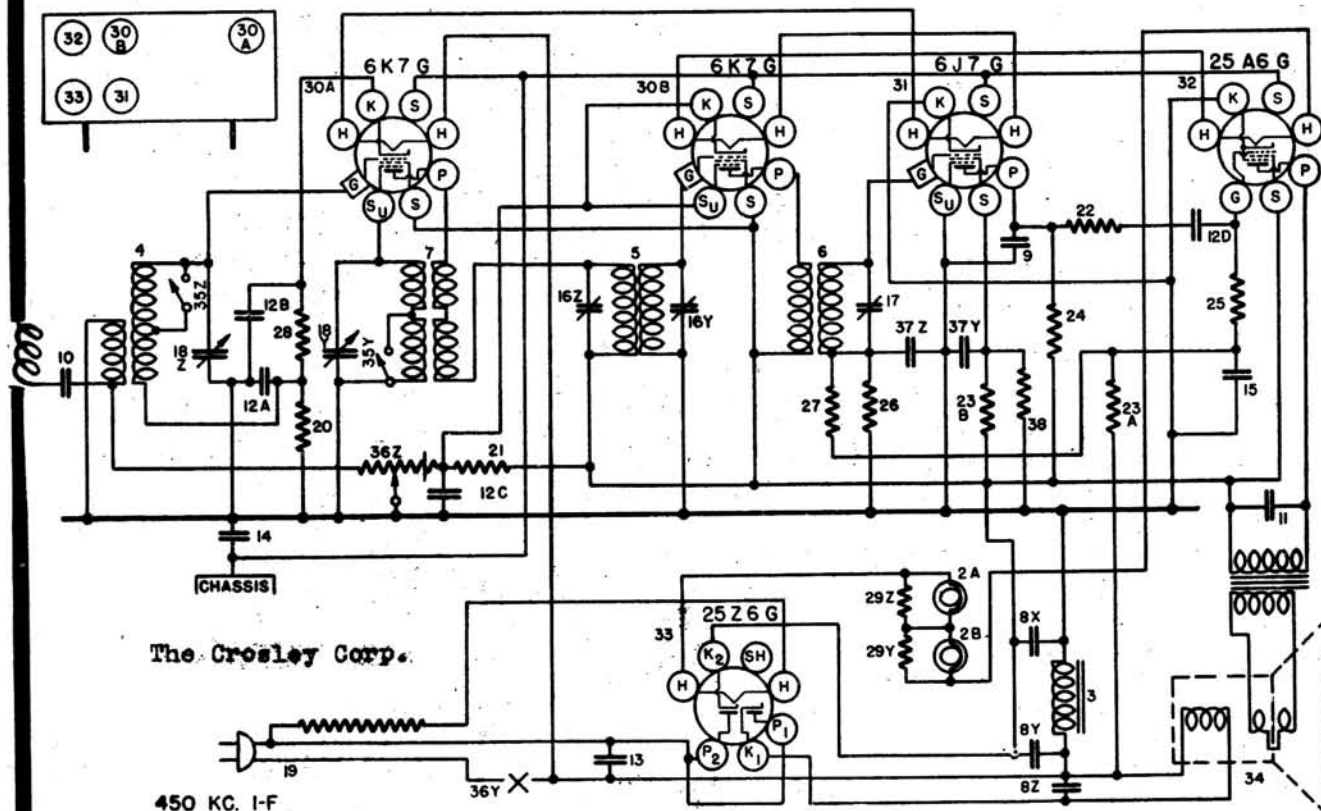


MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

MODEL 536 AND 5536

Figures in first column refer to parts in Diagrams.

Item No.	Part No.	Description	Item No.	Part No.	Description
1	W —29784B	Antenna—Flexible	W —41162	Drive Chain—5536 only	
2A	W —4099B	Dial Light	W —41160	Bearing Bracket—5536 only	
2B	W —4099B	Dial Light	W —41159A	Shaft—5536 only	
	G6 —27134	Dial Light Socket Assembly	W —40909	Spring Washer—5536 only	
3	G4 —28859	Filter Choke	W —31840A	Snap Ring—5536 only	
4	G106—32000	Ant. Coil	B —40999	Power Cord & Plug	
5	G104—32004	1st I-F Coil	—36316	Resistor, 2700 Ohm 1/4 W.	
6	G103—32004	2nd I-F Coil	21 —4921C	Resistor, 10,000 Ohm 1 W.	
7	G94 —32002	Osc. Coil	22 —35928	Resistor, 60,000 Ohm 1/4 W.	
8Z		(8 Mfd. 125 V.	23A —35600	Resistor, 100,000 Ohm 1/4 W.	
8Y	W —29804A	Condenser, 16 Mfd. 125 V.	23B —35600	Resistor, 100,000 Ohm 1/4 W.	
8X		25 Mfd. 100 V.	24 —35601	Resistor, 300,000 Ohm 1/4 W.	
9	G1 —34002	Condenser, .00025 Mfd. (Molded)	25 —36322	Resistor, 500,000 Ohm 1/4 W.	
10	W —28620	Condenser, .003 Mfd. 200 V.	26 —35927	Resistor, 2 Megohm 1/4 W.	
11	W —23191A	Condenser, .01 Mfd. 400 V.	27 —33490	Resistor, 10 Megohm 1/4 W.	
12A	W —36541	Condenser, .02 Mfd. 160 V.	28 W —28589	Resistor, 350 Ohm 1/2 W. Flex.	
12B	W —36541	Condenser, .02 Mfd. 160 V.	29 W —41000	Candohm—2 Sections	
12C	W —36541	Condenser, .02 Mfd. 160 V.	30A G151—36400	Socket Type 6K7	
12D	W —36541	Condenser, .02 Mfd. 160 V.	30B G151—36400	Socket Type 6K7	
13	W —32780B	Condenser, .05 Mfd. 400 V.	31 G157—36400	Socket Type 6J7	
14	W —24049C	Condenser, 1 Mfd. 160 V.	32 G161—36400	Socket Type 25A6	
16	W —37075	Condenser, 2 Section Trimmer	33 G162—36400	Socket Type 25Z6	
17	W —40998	Condenser, 1 Section Trimmer	W —40911	Tube Shield	
18	G22 —33001	2 Section Var. Tuning Condenser	W —27981A	Tube Shield Base	
	C —40926	Dial Glass—536 only	B —41012	Speaker 237BL9	
	W —40632B	Pointer Disc—536 only	W —40593	Speaker Mtg. Bracket	
	W —41014A	Dial Glass Bracket R-H—536 only	—6415	Mtg. Bracket Screw	
	W —41013A	Dial Glass Bracket L-H—536 only	W —41004	Band Selector Switch	
	W —41227	Drive Chain—536 only	35 —41002	Volume Control 4800 Ohm Tap 160 Ohm	
	W —40633B	Bearing Support—536 only	36Z —41002	Line Switch	
	W —41112A	Driven Sprocket—536 only	B —40590	Escutcheon	
	W —41113A	Driver Sprocket	D —28	Escutcheon Mtg. Screws (4) 536 only	
	W —40486	Pointer Disc Mtg. Screw	W —41019	Knob	
	C —40927	Dial Glass—5536 only	W —40839	Escutcheon	
	B —40818B	Pointer Disc—5536 only	W —40840	Escutcheon Plate	
	W —41158	Support Bracket L-H—5536 only	W —29760A	Escutcheon Pin 5536 only	
	W —41143	Support Bracket R-H—5536 only	W —41019	Knob (2)	
	W —40797	Dial Glass Bracket—5536 only	W —41021	Knob (1)	

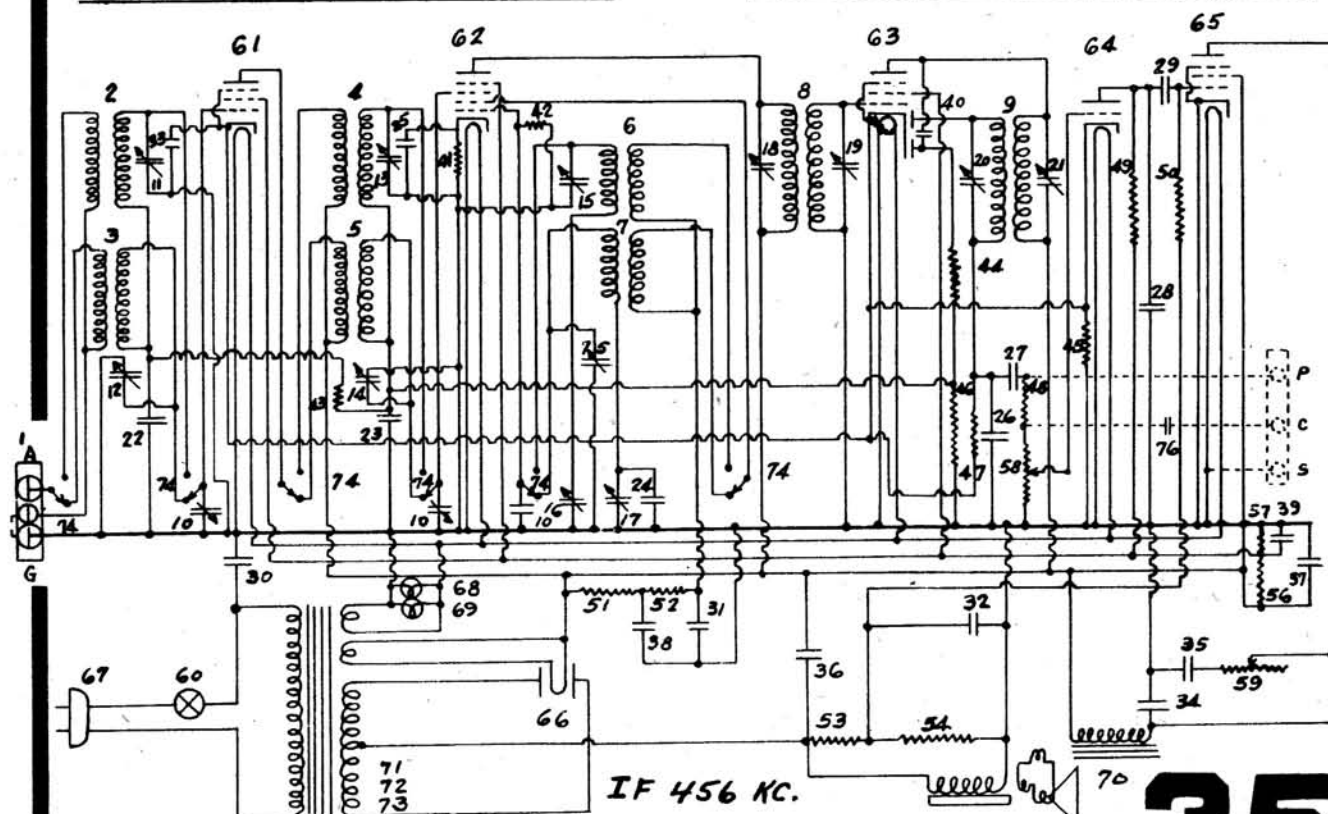


MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

PARTS LIST—MODEL 6H2

* Figures in 2nd last column refer to parts shown in wiring diagram of Model 6H2

Qty.	Part No.	Description	Item	Qty.	Part No.	Description	Item
1	G3-32000	Antenna Coil (Low Freq.)	2	1	B30375A	Cable & Plug	67
1	G1-32002	Antenna Coil (High Freq.)	3	1	W28552	Level Control (Volume) (3 Megohms)	56
1	G2-32001	R. F. Trans. Coil (L. F.)	4	2	G4-27134	Dial Light Brkt Assm.	59-60
1	G1-32001	R. F. Trans. Coil (H. F.)	5	1	W25594B	Tone Control (80000 Ohm) & Line Switch	1
1	G2-32002	Oscillator Coil (L. F.)	6	1	G16-26719	Ant.-Gnd. Terminal	1
1	G1-32002	Osc. Coil (H. F.)	7				
1	G9-32004	1st I. F. Trans. (With Trimmers)	8-18				
1	G10-32004	2nd I. F. Trans. (With Trimmers)	19				
6	W25200	Coil Shield Socket	21	1	W20007C	8-8-8. Mfd. 450 V.-450 V.-250 V.	37-38
3	W30802	Coil Shield		1	W26194B	12. Mfd. 475 V.	39
2	W25025A	Coil Shield		1	W30321	1. Mfd. 160 V.	36
1	W25025A	Coil Shield		3	W32379	0.02 Mfd. 200 V.	32
3	W26891	Insulating Washer L. F. Ant.-R. F. and Osc.	2-4-6	1	W32304	0.0014 Mfd.	22-23
3	W21541B	Retaining Ring	2-4-6	1	W30322A	0.00017-0.006 Mfd. 200 V.-200 V.	25
2	W30026	Retaining Ring	3-5-7	1	W25537A	0.001-0.03 Mfd. 400 V.-400 V.	24
1	G1-33008	L. F. & H. F. Antenna Trimmer Cond.	11-12	1	W30805	0.01 Mfd. 400 V.	26-27
1	G15-33009	L. F. & H. F. Osc. Trimmer Cond.	13-14	1	W32378	0.01 Mfd. 400 V.	28-29
1	G2-33007	L. F. & H. F. Osc. Series Trimmer Cond.	15-75	1	W24784	0.25 Mfd. 200 V.	30
1	G19-33002	Variable Tuning Condenser Gang	16-17	1	W25517	0.008-0.05 Mfd. 400 V.-400 V.	31
1	G5-32066	Dial Drive Assm.	10	1	W27540	0.0005 Mfd. 400 V.	33
1	W32208A	Dial Hand		1	W28589	350 Ohms (Flexible)	34-35
2	W32293	Dial Hand Nut		1	21453	40000 Ohms	40
1	G75-27456	6D6 Socket	61	4	23785	500000 Ohms	41
1	G47-27456	6A7 Socket	62	2	26577	3 Megohms	42
1	G48-27456	6B7 Socket	63	1	W27504	100 Ohms (Flexible)	43-48
1	G80-27456	76 Socket	64	1	21454	1 Megohm	44-46
1	G25-27456	42 Socket	65	1	23403	150000 Ohms	45
1	G6-27456	80 Socket	66	1	21876	10000 Ohms	46
3	W26010	Tube Shield Base		1	24814	7000 Ohms	47
2	W27328A	Tube Shield (6A7, 6B7)		1	33474	120000 Ohms	48
1	B26009C	Tube Shield (6D6)		1	W31883	8500-25000 Ohms	49
1	G6-30745	Power Transformer 60 cy. 110 V.	71	3	W32352	Knob	50-53
	G7-30745	Power Transformer 25 cy. 110 V.	72	1	W32353	Knob	54
	G8-30745	Power Transformer 25 cy. 220 V.	73	1	W31007A	Speaker Cord (4 Lead)	55-57
1	B32285	Band Change Switch	74	1	W32219A	Dial Glass	
				1	W3220A	Dial Glass Retainer	
				1	B32190C	Escutcheon	
				1	W33106A	Escutcheon Gasket	
				4	D28	Escutcheon Screws (.10 doz)	

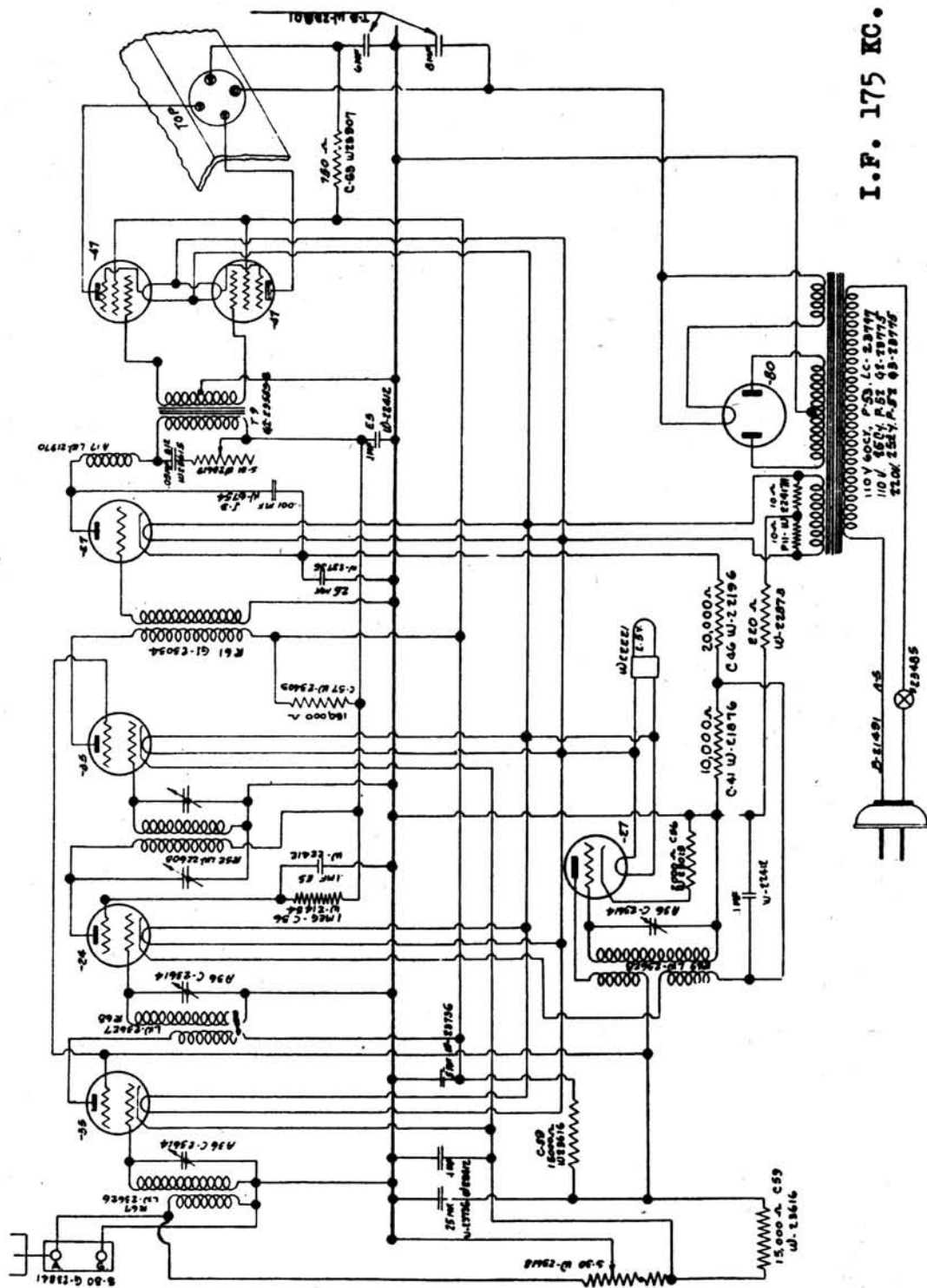


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MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

Crosley Radio Corporation
Model 124

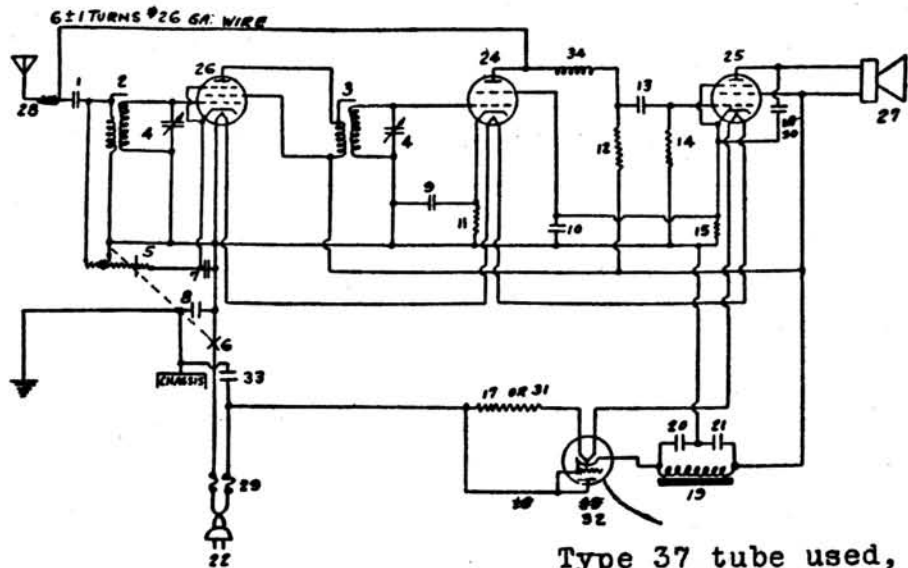


I.F. 175 KC.

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

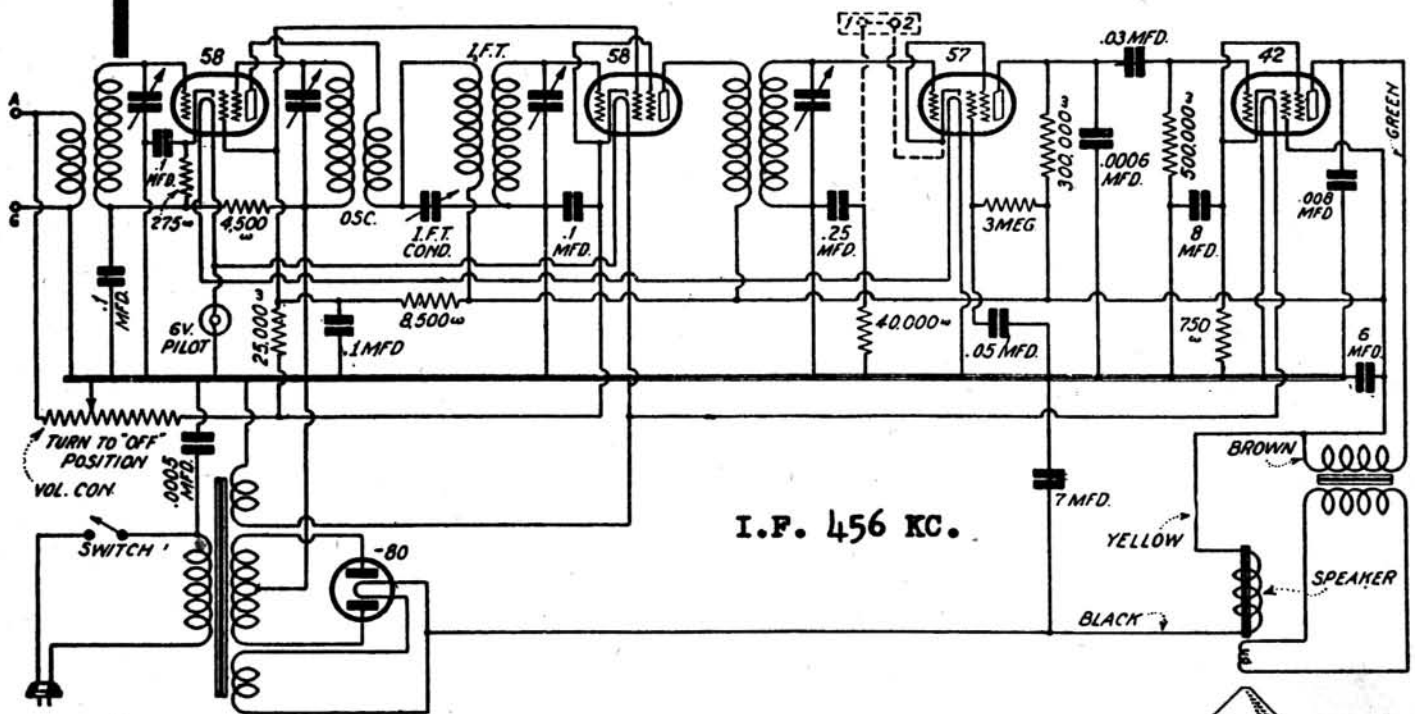
Crosley Model 147

1	W-27652	.003 MFD.
2	W-27680	ANTENNA COIL
3	W-27681	INTERSTAGE COIL
4	W-27706	TUNING CONDENSER
5	W-27694	TUNING COND. 5500 μ
6		LINE SWITCH
7	W-25438	.1 MFD.
8	W-27671A	.1 MFD.
9		.1 MFD.
10		.1 MFD.
11	W-27237A	60,000 Ω
12	W-26577	3 MEG.
13	W-27203	.02 MFD.
14	W-26578	5 MEG.
15	W-26690	4500 Ω
16	W-26438	OPENED
17	W-27675	300 Ω RED PEN.
18	W-27682	20 M Ω
19	W-27674	FILTER CHOKER
20	W-27676	4 MFD.
21		4 MFD.
22	W-27675	COIL & PLUG
23		5- SOCKET
24	W-27127	-36 SOCKET
25	W-27127	-3A SOCKET
26	W-27127	-3B SOCKET
27	W-27127	-3C SOCKET
28	W-26072	ANTENNA LEAD
29	W-26390	2 AMP. FUSE
30	W-27682	.003 MFD.
31	W-27100	200 Ω CARBON
32	W-27127	-37 SOCKET
33	W-27652	.003 MFD.
34	W-27674	FILTER CHOKER



Type 37 tube used,
Early models used
type KR tube.

Crosley Model 148



I.F. 456 KC.

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

The Crosley Radio Corporation, Cincinnati, Ohio

Model 158

Specifications

Model 158 is a seven tube superheterodyne designed for operation from A. C. electric circuits. The intermediate frequency used is 181.5 KC.

Tubes And Voltage Limits

The following are the voltages measured with the receiver in operating condition, but with no signal to the antenna circuit. Use a high resistance D. C. Voltmeter (1000 ohms per volt, or more) for all but filament voltages. In measuring filament or heater voltages use

a low range A. C. meter. The voltage limits are + or - 10% of values given in the following table.

Line voltage—117.5 (235 for 220 volt receivers).

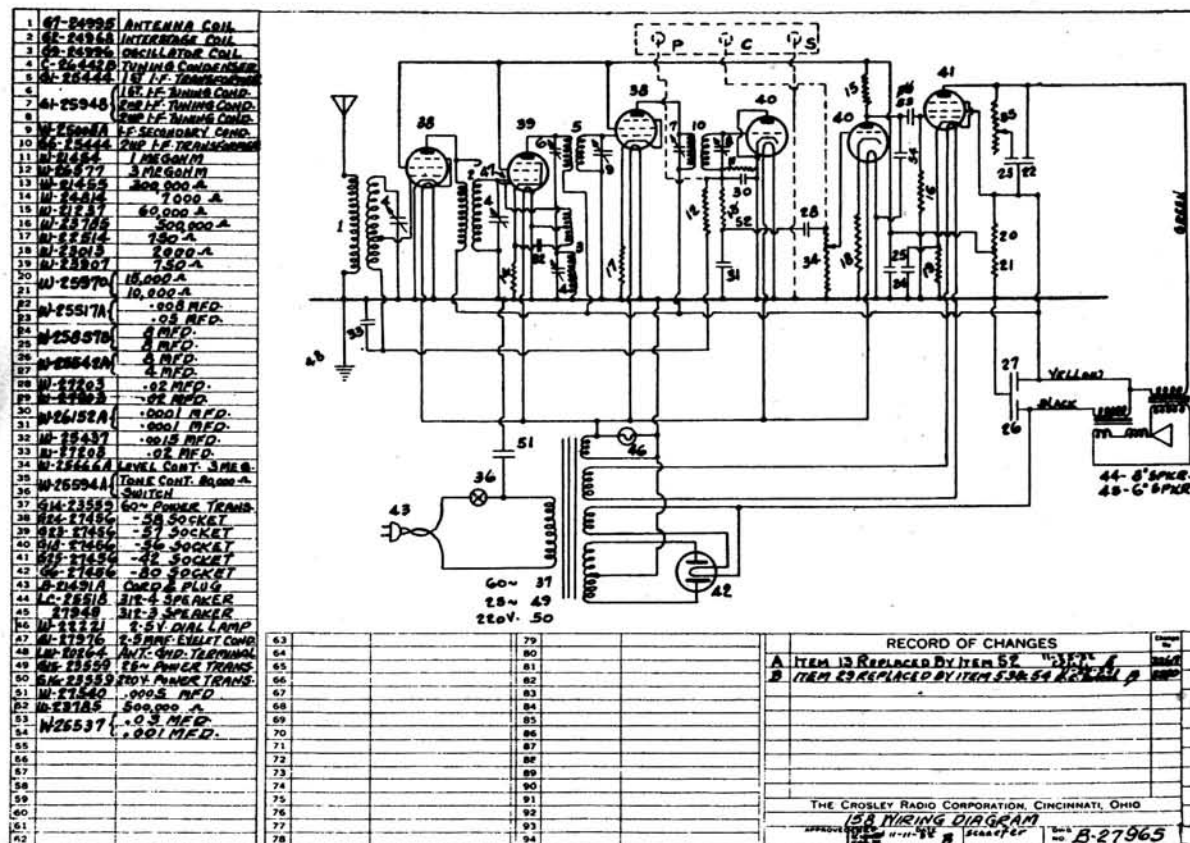
Plate voltage measured from plate contact to cathode contact.

Screen grid voltage measured from screen grid contact to cathode contact.

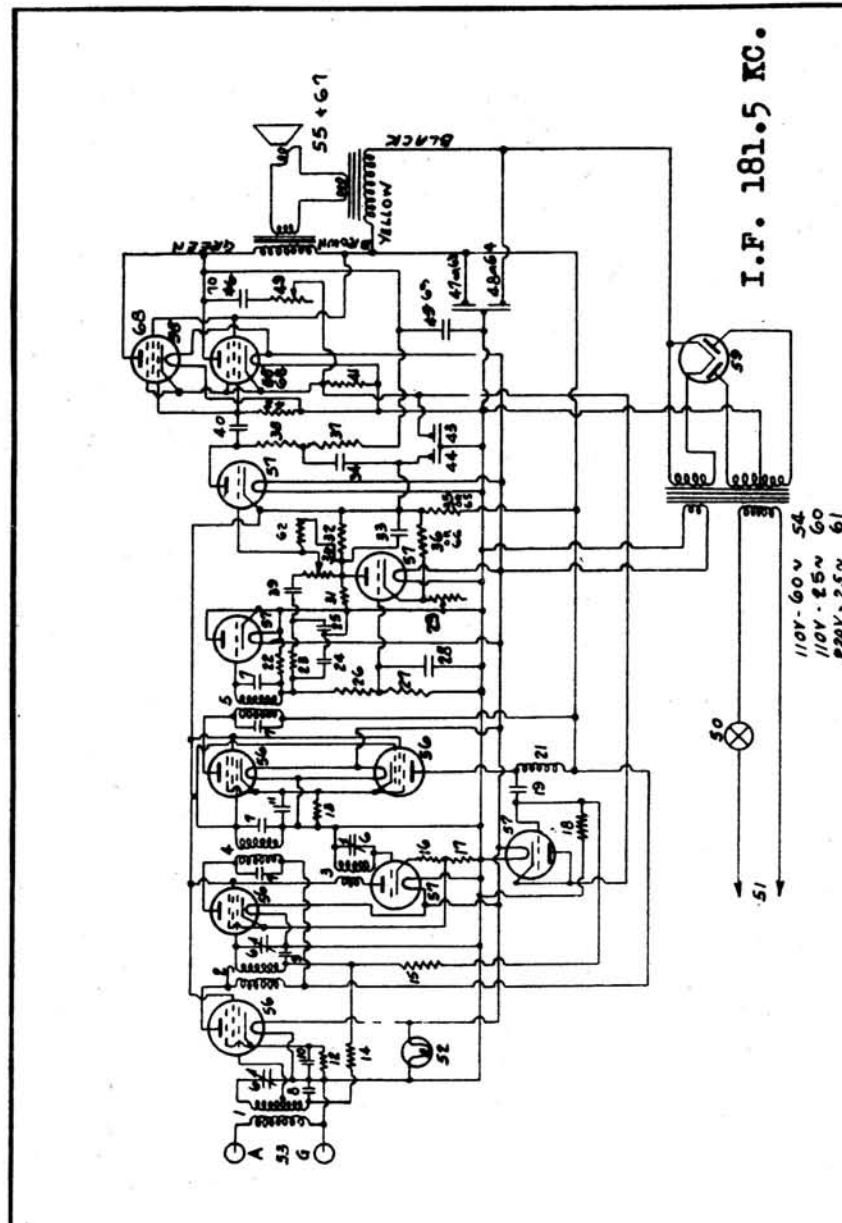
Suppressor grid voltage measured from suppressor grid contact to cathode contact.

Bias voltage measured from cathode contact to chassis.

Tube	Position	Plate	Screen Grid	Voltages Supp. Grid	Bias	Fil
-58	R. F. Amplifier	270	85	0	0	2.5
-57	Oscillating Detector	270	80	0	6.0	2.5
-58	I. F. Amplifier	275	80	0	4.0	2.5
-56	Detector	0				2.5
-56	A. F. Amplifier	40			1.6	2.5
-42	Output	245	250		22.0	6.3
-80	Rectifier	350				4.8



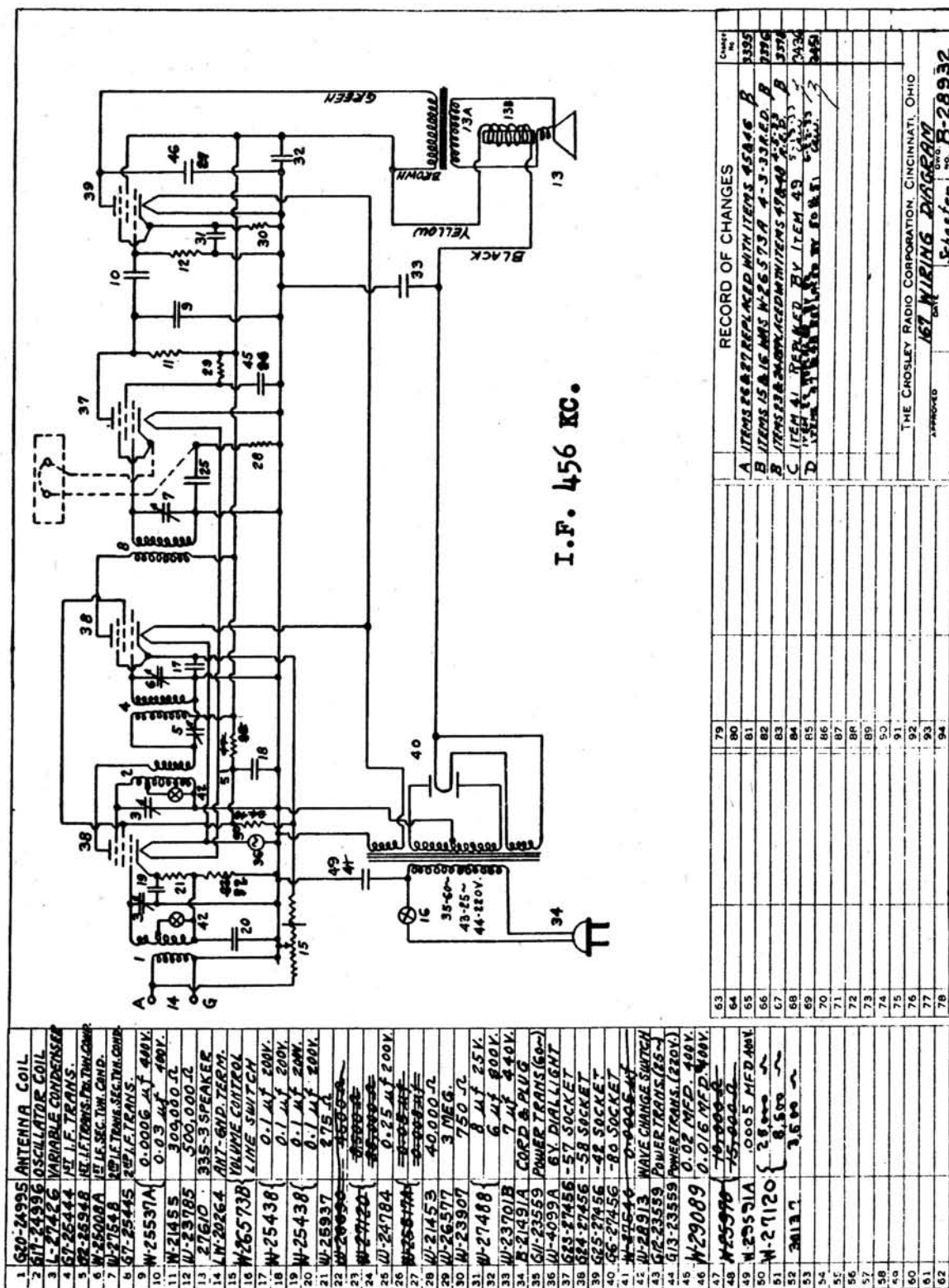
Model 160



RECORD OF CHANGES		Change
A	ITEM 62 ADDED	12-29-32
B	ITEMS 63 AND 64 ADDED	1-1-33
C	ITEMS 65 AND 66 ADDED	1-1-33
D	ITEM 58 REPLACED BY ITEM 68	1-1-33
E	ITEMS 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94	1-1-33

1	6X4-24995	RECTIFIER COIL
2	6X4-24996	INTERSTAGE COIL
3	6X4-24996	OSCILLATOR COIL
4	6X4-24065	15" I.F. TRANS.
5	6X4-24065	2" I.F. TRANS.
6	6X4-24065	2" I.F. TRANS.
7	6X4-24065	2" I.F. TRANS.
8	6X4-24065	2" I.F. TRANS.
9	6X4-24065	2" I.F. TRANS.
10	6X4-24065	2" I.F. TRANS.
11	6X4-24065	2" I.F. TRANS.
12	6X4-24065	2" I.F. TRANS.
13	6X4-24065	2" I.F. TRANS.
14	6X4-24065	2" I.F. TRANS.
15	6X4-24065	2" I.F. TRANS.
16	6X4-24065	2" I.F. TRANS.
17	6X4-24065	2" I.F. TRANS.
18	6X4-24065	2" I.F. TRANS.
19	6X4-24065	2" I.F. TRANS.
20	6X4-24065	2" I.F. TRANS.
21	6X4-24065	2" I.F. TRANS.
22	6X4-24065	2" I.F. TRANS.
23	6X4-24065	2" I.F. TRANS.
24	6X4-24065	2" I.F. TRANS.
25	6X4-24065	2" I.F. TRANS.
26	6X4-24065	2" I.F. TRANS.
27	6X4-24065	2" I.F. TRANS.
28	6X4-24065	2" I.F. TRANS.
29	6X4-24065	2" I.F. TRANS.
30	6X4-24065	2" I.F. TRANS.
31	6X4-24065	2" I.F. TRANS.
32	6X4-24065	2" I.F. TRANS.
33	6X4-24065	2" I.F. TRANS.
34	6X4-24065	2" I.F. TRANS.
35	6X4-24065	2" I.F. TRANS.
36	6X4-24065	2" I.F. TRANS.
37	6X4-24065	2" I.F. TRANS.
38	6X4-24065	2" I.F. TRANS.
39	6X4-24065	2" I.F. TRANS.
40	6X4-24065	2" I.F. TRANS.
41	6X4-24065	2" I.F. TRANS.
42	6X4-24065	2" I.F. TRANS.
43	6X4-24065	2" I.F. TRANS.
44	6X4-24065	2" I.F. TRANS.
45	6X4-24065	2" I.F. TRANS.
46	6X4-24065	2" I.F. TRANS.
47	6X4-24065	2" I.F. TRANS.
48	6X4-24065	2" I.F. TRANS.
49	6X4-24065	2" I.F. TRANS.
50	6X4-24065	2" I.F. TRANS.
51	6X4-24065	2" I.F. TRANS.
52	6X4-24065	2" I.F. TRANS.
53	6X4-24065	2" I.F. TRANS.
54	6X4-24065	2" I.F. TRANS.
55	6X4-24065	2" I.F. TRANS.
56	6X4-24065	2" I.F. TRANS.
57	6X4-24065	2" I.F. TRANS.
58	6X4-24065	2" I.F. TRANS.
59	6X4-24065	2" I.F. TRANS.
60	6X4-24065	2" I.F. TRANS.
61	6X4-24065	2" I.F. TRANS.
62	6X4-24065	2" I.F. TRANS.
63	6X4-24065	2" I.F. TRANS.
64	6X4-24065	2" I.F. TRANS.
65	6X4-24065	2" I.F. TRANS.
66	6X4-24065	2" I.F. TRANS.
67	6X4-24065	2" I.F. TRANS.
68	6X4-24065	2" I.F. TRANS.
69	6X4-24065	2" I.F. TRANS.
70	6X4-24065	2" I.F. TRANS.
71	6X4-24065	2" I.F. TRANS.
72	6X4-24065	2" I.F. TRANS.
73	6X4-24065	2" I.F. TRANS.
74	6X4-24065	2" I.F. TRANS.
75	6X4-24065	2" I.F. TRANS.
76	6X4-24065	2" I.F. TRANS.
77	6X4-24065	2" I.F. TRANS.
78	6X4-24065	2" I.F. TRANS.
79	6X4-24065	2" I.F. TRANS.
80	6X4-24065	2" I.F. TRANS.
81	6X4-24065	2" I.F. TRANS.
82	6X4-24065	2" I.F. TRANS.
83	6X4-24065	2" I.F. TRANS.
84	6X4-24065	2" I.F. TRANS.
85	6X4-24065	2" I.F. TRANS.
86	6X4-24065	2" I.F. TRANS.
87	6X4-24065	2" I.F. TRANS.
88	6X4-24065	2" I.F. TRANS.
89	6X4-24065	2" I.F. TRANS.
90	6X4-24065	2" I.F. TRANS.
91	6X4-24065	2" I.F. TRANS.
92	6X4-24065	2" I.F. TRANS.
93	6X4-24065	2" I.F. TRANS.
94	6X4-24065	2" I.F. TRANS.

Model 167



RECORD OF CHANGES			
NO.	DATE	DESCRIPTION	BY
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THE CHOSLEY RADIO CORPORATION, CINCINNATI, OHIO
 167 WIRING DIAGRAM
 APPROVED BY: [Signature]
 DATE: [Date]
 NO. B-28932

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

The Crosley Radio Corporation, Cincinnati, Ohio

Model 168

Specifications

Model 168 is a seven tube dual band super-heterodyne designed for operation from A.C. electric circuits. The intermediate frequency is 181.5 Kc.

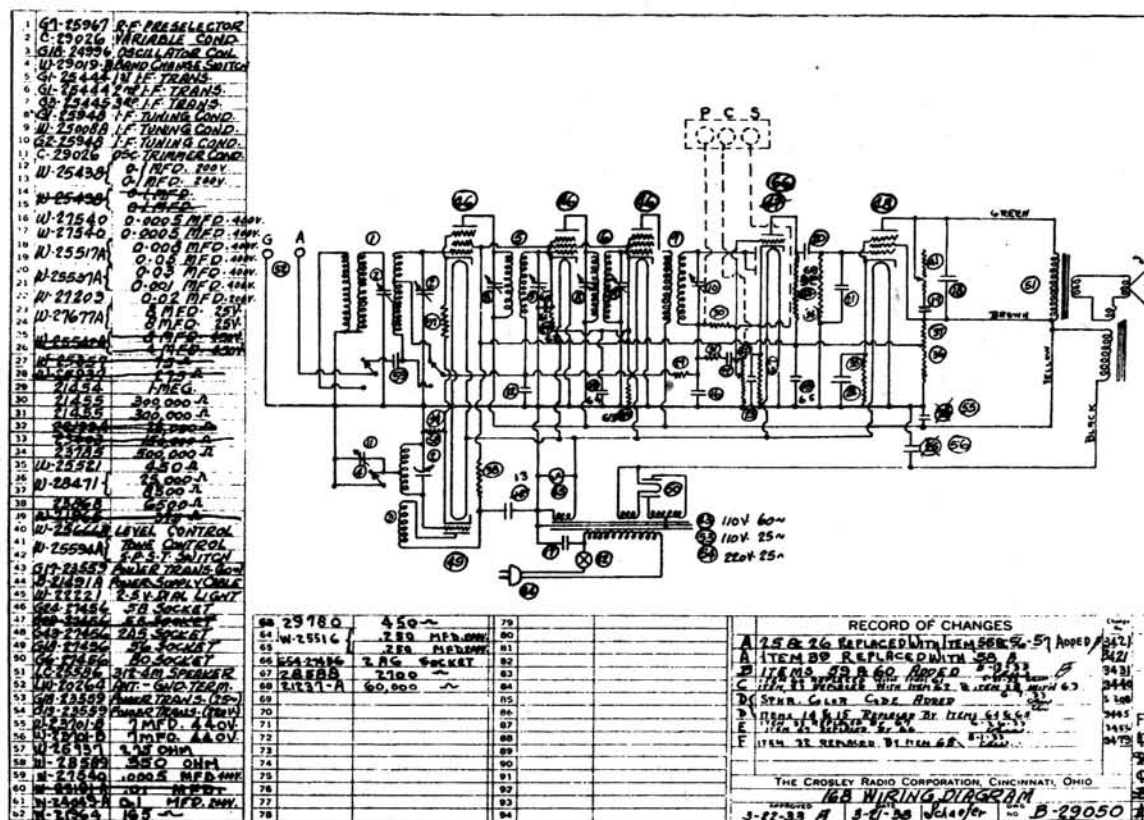
Tubes and Voltage Limits

The following are the tubes and voltages

measured with the receiver in operating condition but with no signal to the antenna circuit. Line voltage should be 117.5 volts (235 volts for 220 volt receivers). All voltages, except filament, are measured from tube contact to chassis with a 500 volt D.C. voltmeter (1000 ohms per volt). Filament voltages are measured with a low range A.C. voltmeter.

Tube	Position	Plate	Screen Grid	Cathode	Suppressor Grid	Filament
56	Oscillator	66		6.5		2.5
58	Modulator	270	122	8.0	8.0	2.5
58	I. F. Amplifier	270	122	8.5	8.5	2.5
58	I. F. Amplifier	270	122	7.0	7.0	2.5
2A6	Detector and A. F. Amplifier	231		2.0		2.5
2A5	Output	257	270	18.0		2.5
80	Rectifier	380				4.9

Voltage limits are plus or minus 10% of values given.



MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

The Crosley Radio Corporation, Cincinnati, Ohio

Model 169

Specifications

Model 169 is a four tube dual band super-heterodyne designed for operation from A.C. electric circuits. The intermediate frequency is 456 Kc.

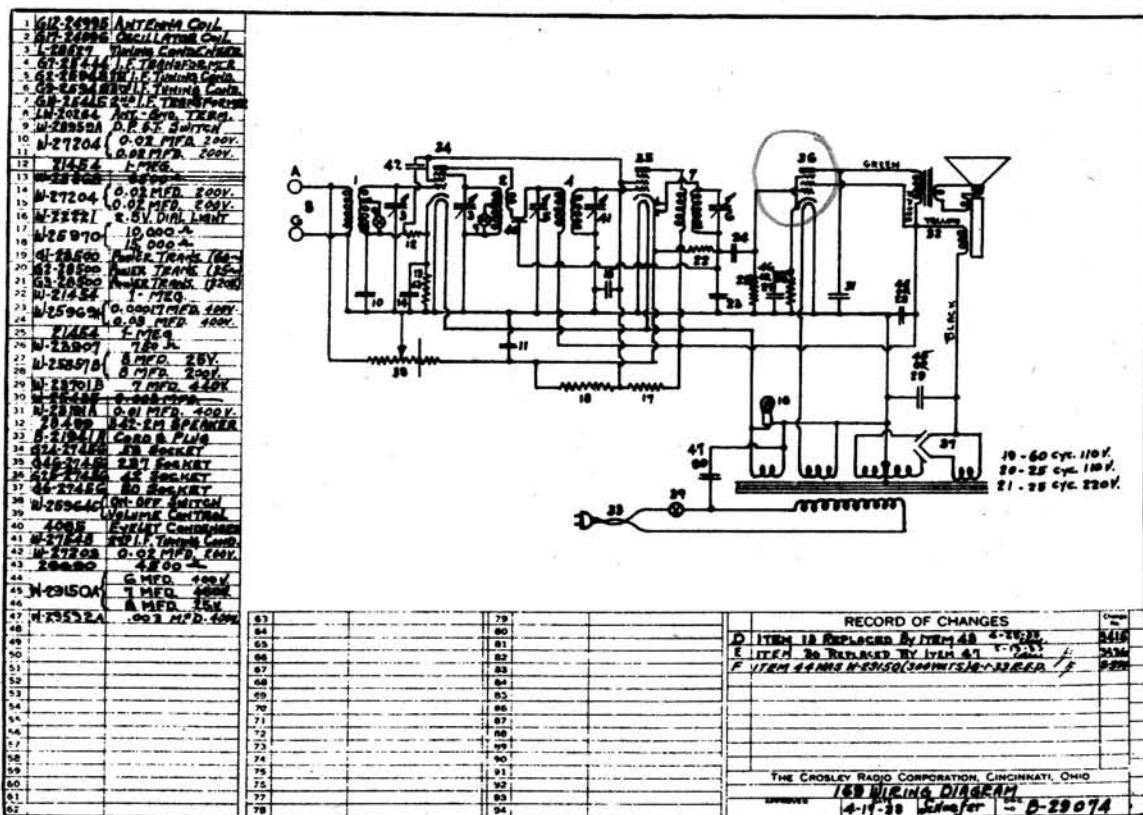
Tubes and Voltage Limits

The following are the tubes and voltages measured with the receiver in operating con-

dition but with no signal to the antenna circuit, with a line voltage of 117.5 volts (235 volts for 220 volt receivers). All voltages, except filament, are measured with a 500 volt D.C. voltmeter (1000 ohms per volt) from tube contact to chassis. Filament voltages are measured with a low range A.C. voltmeter.

Tube	Position	Plate	Screen Grid	Cathode	Suppressor Grid	Filament
58	Oscillator-Modulator	188	88	28	0	2.5
2B7	I. F. Amplifier and Detector	188	88	2		2.5
42	Output	178	188	14.5		2.5
80	Rectifier	322				4.9

Voltage limits are plus or minus 10% of values given.



MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

The Crosley Radio Corporation, Cincinnati, Ohio

Model 170

Specifications

Model 170 is a ten tube dual band super-heterodyne designed for operation from A.C. electric circuits. The intermediate frequency used is 181.5 Kc.

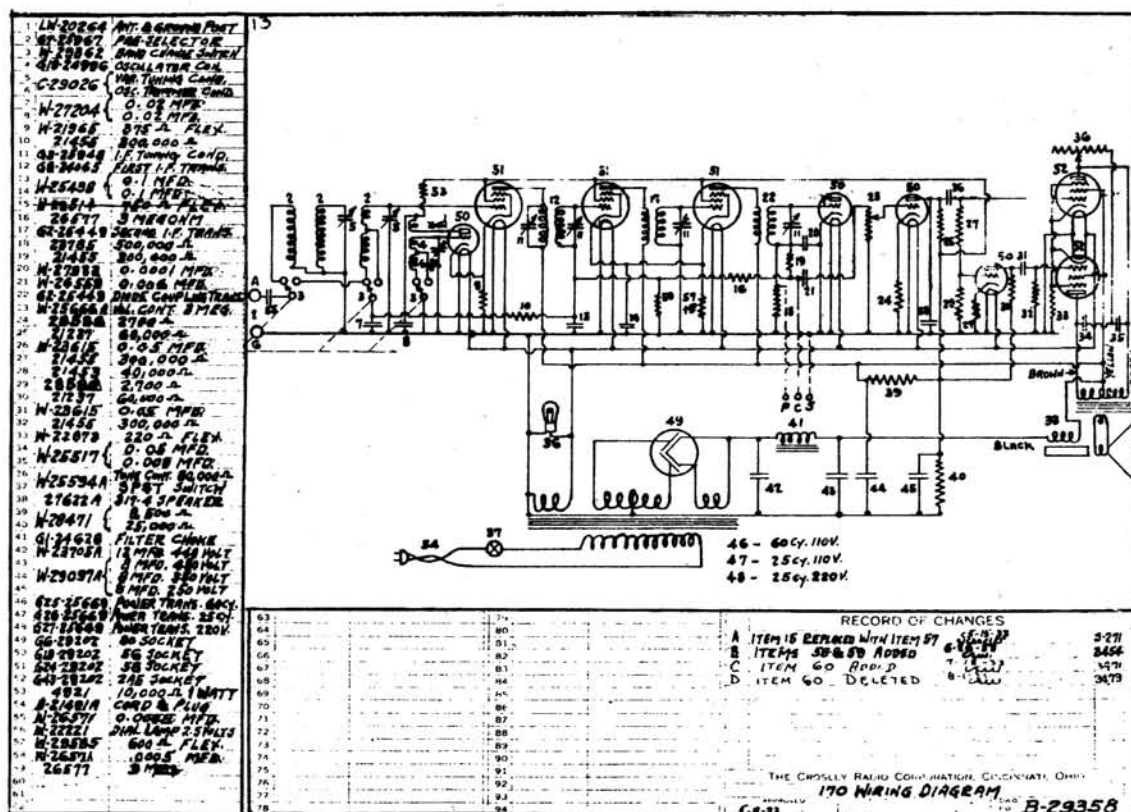
Tubes and Voltage Limits

The following are the tubes and voltages measured with the receiver in operating con-

dition but with no signal to the antenna circuit, and with a line voltage of 117.5 volts (235 volts for 220 volt receivers). All voltages, except filament, are measured with a 500 volt D.C. voltmeter (1000 ohms per volt) from tube contact to chassis. Filament voltages are measured with a low range A.C. voltmeter.

Tube	Position	Plate	Screen Grid	Cathode	Suppressor Grid	Filament
58	Modulator	276	120	6.0	6.0	2.5
56	Oscillator	50		6.0		2.5
58	I. F. Amplifier	276	120	8.0	8.0	2.5
58	I. F. Amplifier	276	120	8.0	8.0	2.5
56	Detector	0				
56	Phase Shifter	55		0		2.5
56	A. F. Amplifier	56		2.0		2.5
2-2A5	Output	269		3.0		2.5
80	Rectifier	355	276	18.0		2.5
						4.9

Voltage limits are plus or minus 10% of values given.



MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

The Crosley Radio Corporation, Cincinnati, Ohio

Model 171

Specifications

Model 171 is a twelve tube dual band superheterodyne designed for operation from A.C. electric circuits. The intermediate frequency is 181.5 Kc.

Voltages and Tube Limits

The following are the tubes and voltages measured with the receiver in operating con-

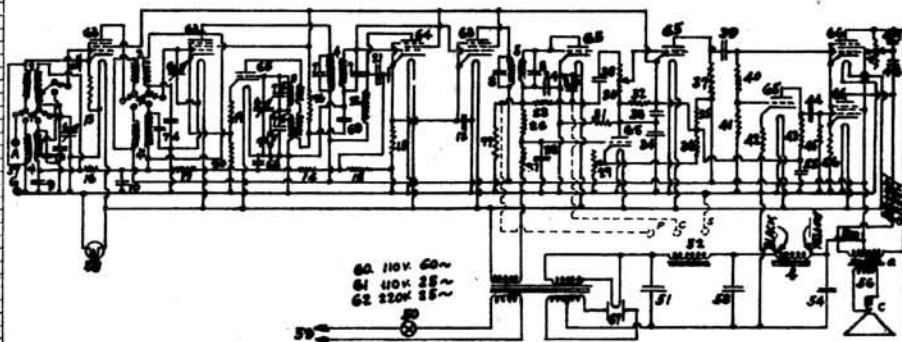
dition but with no signal to the antenna circuit, and with a line voltage of 117.5 volts (235 volts for 220 volt receivers). All voltages, except filament are measured with a 500 volt D.C. voltmeter (1000 ohms per volt) from tube contact to chassis. Filament voltages are measured with a low range A.C. voltmeter.

Tube	Position	Plate	Screen Grid	Cathode	Suppressor Grid	Filament
58	R. F. Amplifier	267	115	3.0	3.0	2.5
56	Oscillator	60		7.0		2.5
58	Modulator	267	115	5.5	5.5	2.5
58	I. F. Amplifier	267	115	4.5	4.5	2.5
2B7	A. V. C. Tube	267	115	4.5	4.5	2.5
56	QAVC Tube	70		0-20.0*		2.5
56	Detector	0		0		2.5
56	Phase Shifter	58		2.5		2.5
56	A. F. Amplifier	170		115		2.5
2-2A5	Output	260	267	17.5		2.5
80	Rectifier	355				4.9

Voltage limits are plus or minus 10% of values given.

*Voltage depends on position of "Q" control.

1	GT-24995 ANT. LOUF. COIL
2	GT-24996 R.F. LOUF. COIL
3	GT-24997 OSC. COIL
4	GT-24998 1st I.F. COIL
5	GT-24999 2nd I.F. COIL
6	GT-25000 VARIABLE COND.
7	GT-25001 1st I.F. TUN. COND.
8	GT-25002 2nd I.F. TUN. COND.
9	N-27204 0-02 MFD. 200V.
10	N-27205 0-02 MFD. 200V.
11	N-27206 0-02 MFD. 200V.
12	N-27207 0-02 MFD. 200V.
13	N-27208 0-02 MFD. 200V.
14	N-27209 0-02 MFD. 200V.
15	N-27210 0-02 MFD. 200V.
16	N-27211 0-02 MFD. 200V.
17	N-27212 0-02 MFD. 200V.
18	N-27213 0-02 MFD. 200V.
19	N-27214 0-02 MFD. 200V.
20	N-27215 0-02 MFD. 200V.
21	N-27216 0-02 MFD. 200V.
22	N-27217 0-02 MFD. 200V.
23	N-27218 0-02 MFD. 200V.
24	N-27219 0-02 MFD. 200V.
25	N-27220 0-02 MFD. 200V.
26	N-27221 0-02 MFD. 200V.
27	N-27222 0-02 MFD. 200V.
28	N-27223 0-02 MFD. 200V.
29	N-27224 0-02 MFD. 200V.
30	N-27225 0-02 MFD. 200V.
31	N-27226 0-02 MFD. 200V.
32	N-27227 0-02 MFD. 200V.
33	N-27228 0-02 MFD. 200V.
34	N-27229 0-02 MFD. 200V.
35	N-27230 0-02 MFD. 200V.
36	N-27231 0-02 MFD. 200V.
37	N-27232 0-02 MFD. 200V.
38	N-27233 0-02 MFD. 200V.
39	N-27234 0-02 MFD. 200V.
40	N-27235 0-02 MFD. 200V.
41	N-27236 0-02 MFD. 200V.
42	N-27237 0-02 MFD. 200V.
43	N-27238 0-02 MFD. 200V.
44	N-27239 0-02 MFD. 200V.
45	N-27240 0-02 MFD. 200V.
46	N-27241 0-02 MFD. 200V.
47	N-27242 0-02 MFD. 200V.
48	N-27243 0-02 MFD. 200V.
49	N-27244 0-02 MFD. 200V.
50	N-27245 0-02 MFD. 200V.
51	N-27246 0-02 MFD. 200V.
52	N-27247 0-02 MFD. 200V.
53	N-27248 0-02 MFD. 200V.
54	N-27249 0-02 MFD. 200V.
55	N-27250 0-02 MFD. 200V.
56	N-27251 0-02 MFD. 200V.
57	N-27252 0-02 MFD. 200V.
58	N-27253 0-02 MFD. 200V.
59	N-27254 0-02 MFD. 200V.
60	N-27255 0-02 MFD. 200V.
61	N-27256 0-02 MFD. 200V.
62	N-27257 0-02 MFD. 200V.



63	GT-25001 1st I.F. COIL	79	
64	GT-25002 2nd I.F. COIL	80	
65	GT-25003 1st I.F. TUN. COND.	81	
66	GT-25004 2nd I.F. TUN. COND.	82	
67	GT-25005 1st I.F. COIL	83	
68	GT-25006 2nd I.F. COIL	84	
69	GT-25007 1st I.F. TUN. COND.	85	
70	GT-25008 2nd I.F. TUN. COND.	86	
71	GT-25009 1st I.F. COIL	87	
72	GT-25010 2nd I.F. COIL	88	
73	GT-25011 1st I.F. TUN. COND.	89	
74	GT-25012 2nd I.F. TUN. COND.	90	
75	GT-25013 1st I.F. COIL	91	
76	GT-25014 2nd I.F. COIL	92	
77	GT-25015 1st I.F. TUN. COND.	93	
78	GT-25016 2nd I.F. TUN. COND.	94	

RECORD OF CHANGES

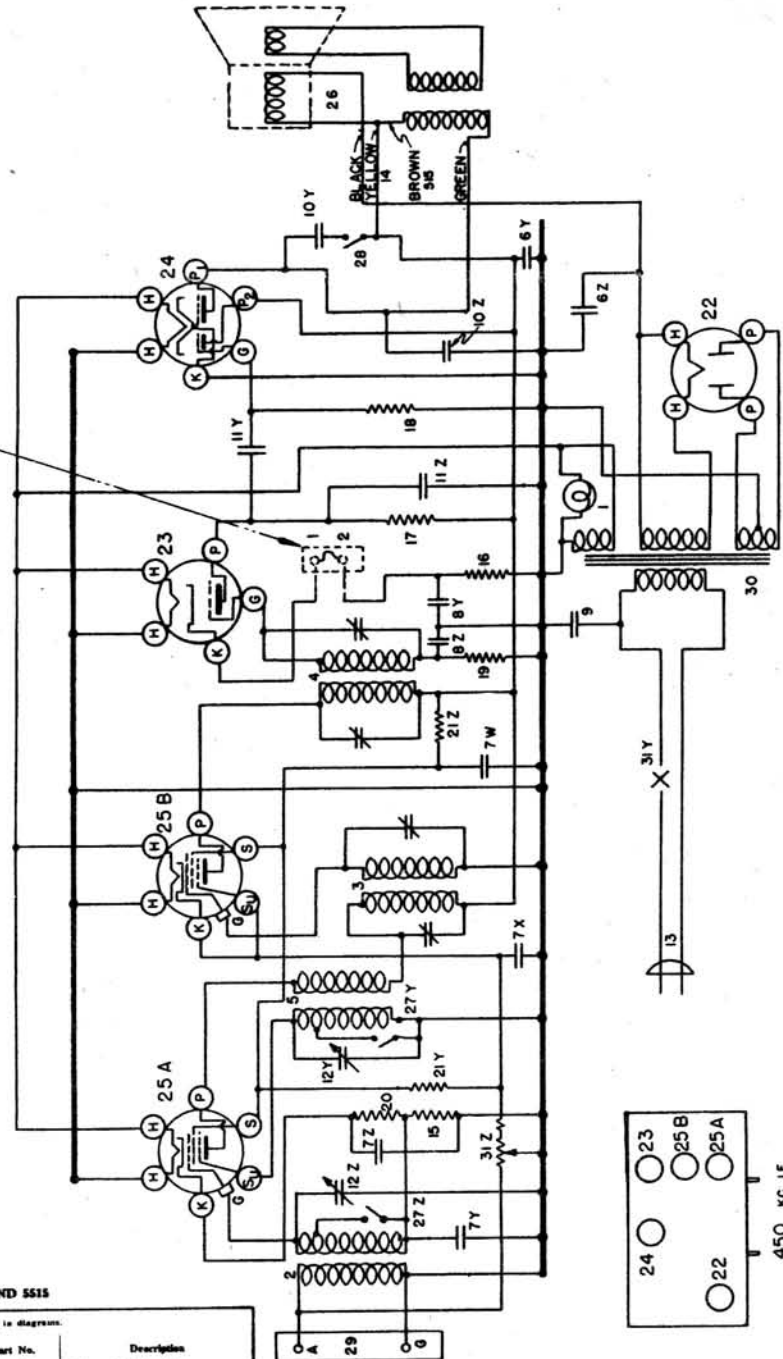
THE CROSLY RADIO CORPORATION, CINCINNATI, OHIO
171 WIRING DIAGRAM
REVISED 5-15-53 TR. 504 NO. 5-29706

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

Crosley Radio

I.F. 450 KC.

NOTE: TERMINALS 1 & 2 TO BE STRAPPED TOGETHER WHEN PHONO ADAPTER IS NOT IN USE.



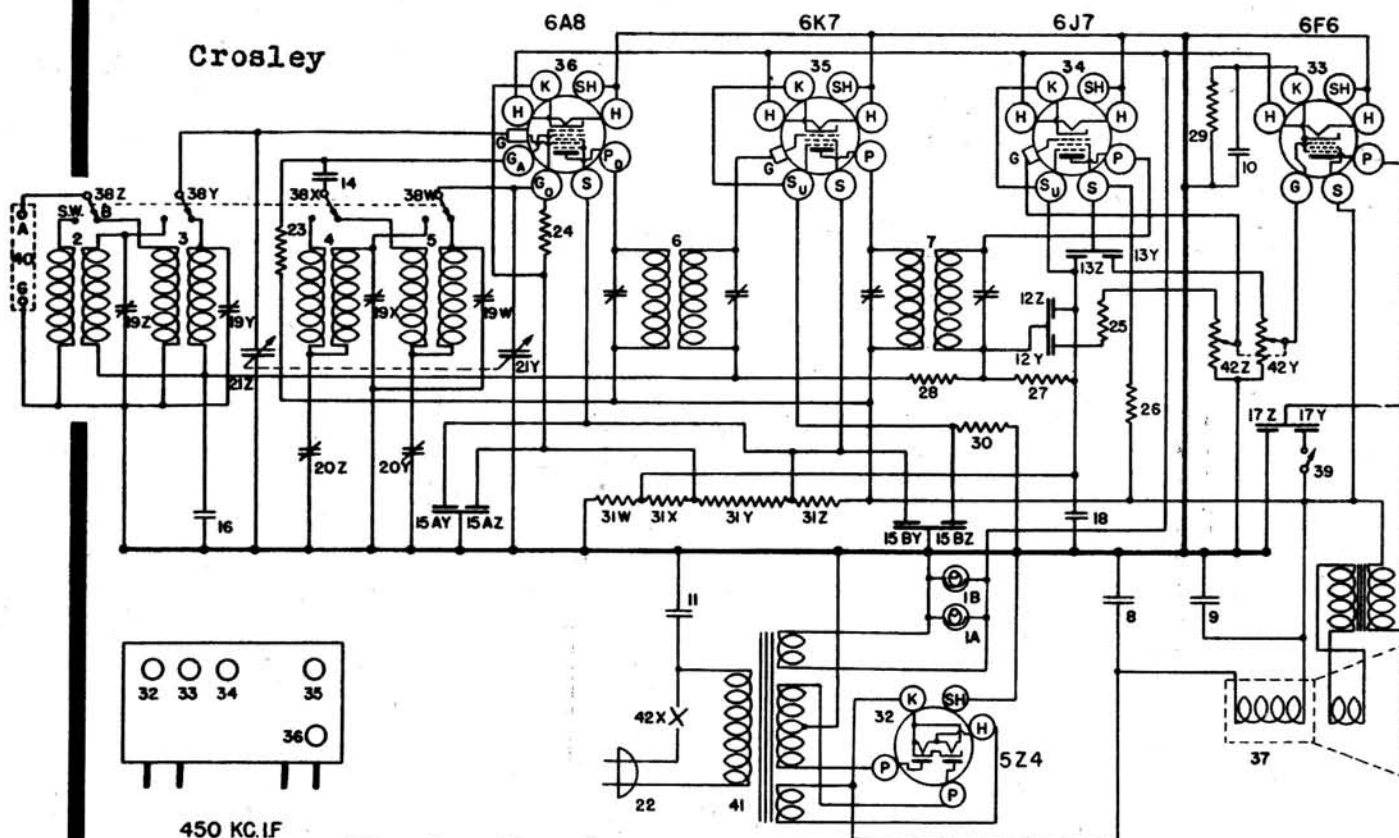
WIRING DIAGRAM OF MODELS 515 AND 5515

PARTS LIST—MODELS 515 AND 5515

Figure in first column refer to parts shown in diagram.

Item No.	Part No.	Description	Item No.	Part No.	Description
1	G4—27134	Dial Light Socket Assembly.	30	W—25937	Resistor, 275 Ohms. Flex.
2	G48—33000	Coil Ast.	31Z	W—35963	Resistor, 8,500 Ohms.
3	G48—33004	1st. I. F. Trans.	31Y	W—35963	Resistor, 25,000 Ohms.
4	G49—33004	2nd. I. F. Trans.	32	G6—28807	Socket, 80.
5	G47—33002	Osc. Coil	33	G40—28807	Socket, 75.
6Z	W—36719	Condenser, 8 Mfd., 450 Volt.	34	C50—28807	Socket, 6B5.
7Z	W—28623	Condenser, 0.02 Mfd., 300 Volt.	35A	G75—28807	Socket, 6D6.
7Y	W—28623	Condenser, 0.02 Mfd., 300 Volt.	35B	W—35772	Tube Shield, Half.
8Z	W—28623	Condenser, 0.02 Mfd., 300 Volt.	36	W—35773	Tube Shield Cap.
8Y	W—28622	Condenser, 0.1 Mfd., 300 Volt.	37	W—35774	Tube Shield Base.
9	W—30805	Condenser, 0.01 Mfd., 400 Volt.	38	W—219-BL9	Speaker.
10Z	W—35011	Condenser, 0.005 Mfd., 400 Volt.	39	W—35753A	Band Change Switch.
11Z	W—35011	Condenser, 0.02 Mfd., 400 Volt.	40	W—36184A	Tone Control Switch.
11Y	W—25537A	Condenser, 0.001 Mfd., 400 Volt.	41	G1—26719	Ant. Grid Terminal.
12Y	G14—33001	Variable Tuning Condenser Gang.	42	G5—28500	Power Transformer, 60 Cy., 110 V.
13	B—36148	Dial Assembly complete.	43	G6—28500	Power Transformer, 25 Cy., 220 V.
14	B—35956A	Card—Power Supply.	44	G7—28500	Volume Control.
15	C3—35956	Speaker Cable (5015 only).	45	W—37343	On-Off Switch.
16	31094	Resistor, 4,500 Ohms.	46	B—35917	Eucathion.
17	21257A	Resistor, 60,000 Ohms.	47	37158	Dial Glass.
18	21455	Resistor, 300,000 Ohms.	48	37156	Dial Pointer.
19	23785	Resistor, 500,000 Ohms.	49	37157	Pointer Screw.
	21454	Resistor, 1 Megohm.	50	W—31565B	Knob (2) large.
			51	W—38356	Knob (2) small.

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



The Crosley Corp.

WIRING DIAGRAMS—MODELS 555 AND 555S

Item No.	Part No.	Description
1A	G6 —27134	Dial Light Assm.
1B	G6 —27134	Dial Light Assm.
2	G82 —32000	Ant. Coil, S. W. B.
3	G81 —32000	Ant. Coil, B. C. B.
4	G65 —32002	Osc. Coil, S. W. B.
5	G66 —32002	Osc. Coil, B. C. B.
6	G71 —32004	1st I. F. Assm.
7	G72 —32004	2nd I. F. Assm.
8	W —36055	Condenser, 35. Mfd. 400 Volt
9	W —36057	Condenser, 40. Mfd. 300 V.
10	W —36931	Condenser, 12 Mfd. 25 V.
11	W —30805	Condenser, 0.01 Mfd. 400 V.
12Z	W —30322A	Condenser, 0.00017 Mfd. 200 V.
12Y	W —30322A	Condenser, 0.006 Mfd. 200 V.
13Z	W —25537A	Condenser, 0.001 Mfd. 400 V.
13Y	W —25537A	Condenser, 0.03 Mfd. 400 V.
14	W —23191A	Condenser, 0.01 Mfd. 400 V.
15AZ	W —28623	Condenser, 0.02 Mfd. 200 V.
15AY	W —28623	Condenser, 0.02 Mfd. 200 V.
15BZ	W —28623	Condenser, 0.02 Mfd. 200 V.
15BY	W —28623	Condenser, 0.02 Mfd. 200 V.
16	W —27216	Condenser, 0.05 Mfd. 200 V.
17Z	W —35011	Condenser, 0.006 Mfd. 400 V.
17Y	W —35011	Condenser, 0.03 Mfd. 400 V.
18	W —36541	Condenser, 0.02 Mfd. 160 V.
19Z	W —37241A	4 Section Trimmer Cond.
19Y	W —37241A	4 Section Trimmer Cond.
19W	W —37241A	4 Section Trimmer Cond.
20Z	G29 —33006	S. W. Osc. Series Padder
20Y	G29 —33006	B. C. Osc. Series Padder
21Z	G17 —33001	Var. Tuning Cond. Gang
21Y	G17 —33001	Var. Tuning Cond. Gang
	—37353C	Dial Assm. Complete
	—37158	Dial Glass
	—37156	Dial Pointer
	—37157	Pointer Screw

Item No.	Part No.	Description
22	B —37354	Dial Face only
23	B —33906A	A. C. Cord & Plug
24	—5370A	Resistor, 20,000 Ohm
25	—21237	Resistor, 60,000 Ohm
26	—21875	Resistor, 100,000 Ohm
27	—21455	Resistor, 300,000 Ohm
28	—33344	Resistor, 400,000 Ohm
29	—37245	Resistor, 1.5 Megohm
30	W —25291	Resistor, 500 Ohm 1 1/2 W. (Flex)
31Z	W —28106	Resistor, 500 Ohm 1/2 W. (Flex)
31Y	W —37246A	Resistor, 10,000 Ohm Candohm
31X	W —37246A	Resistor, 25,000 Ohm Candohm
31W	W —37246A	Resistor, 185. Ohm Candohm
32	G154—36400	Resistor, 185. Ohm Candohm
33	G153—36400	Socket, 5Z4
34	G157—36400	Socket, 6F6
35	G151—36400	Socket, 6J7
36	G156—36400	Socket, 6K7
37	331—CL—9	Socket, 6A8
	432—CJ—3M	Speaker, (555)
	G3 —35696	Speaker, (555S) Console
		Speaker Cable (555S)
38W	—37247	Band Change Switch
38Z	—37247	Band Change Switch
39	W —36184A	Tone Control Switch
40	G1 —26719	Ant. & Grd. Terminal
41	G12 —28500	Power Trans. 60 Cy. 110 V.
	G13 —28500	Power Trans. 25 Cy. 110 V.
	G14 —28500	Power Trans. 25 Cy. 220 V.
42Z	—37395	Volume Control A. F. Grid
42Y	—37395	Volume Control Output Grid
42X	—37395	On-Off Switch

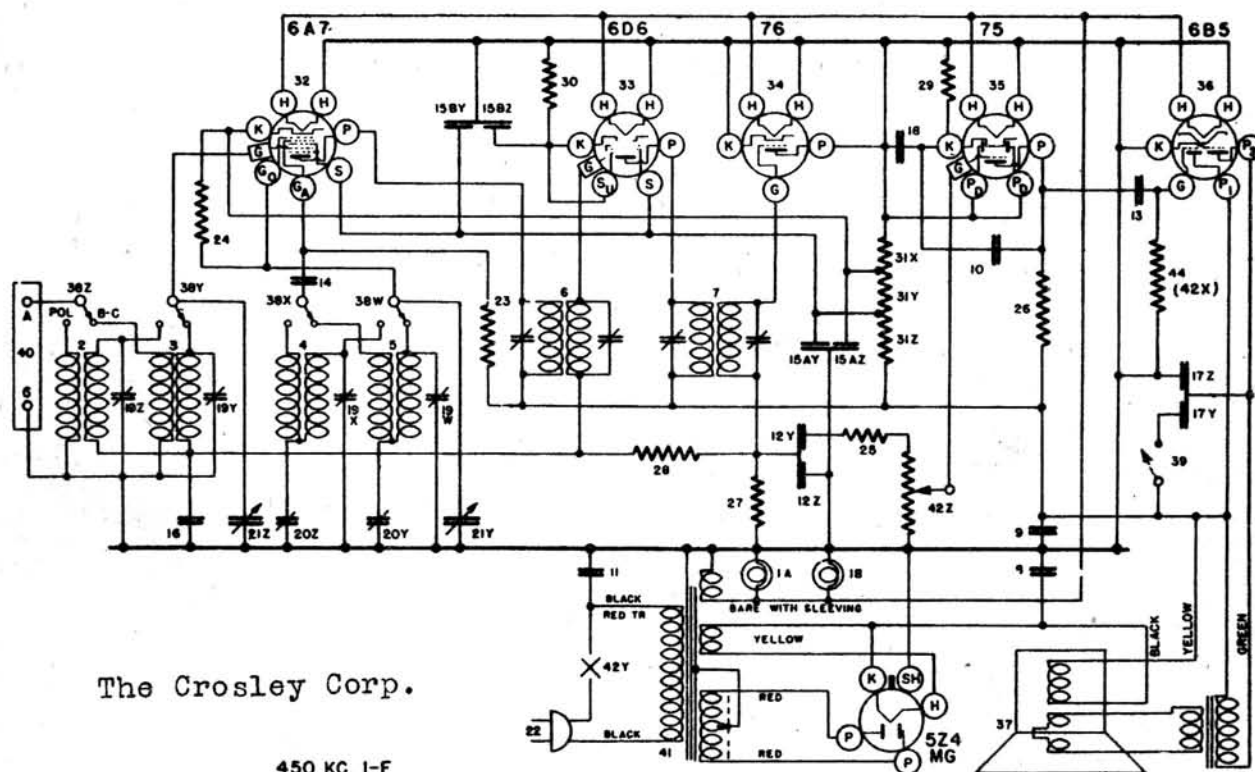
MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

PARTS LIST—MODELS 666 and 5666

Figures in first column refer to parts in Diagrams.

Item No.	Part No.	Name	Item No.	Part No.	Name
1	W-37922	6-8 V. Bulb, Dial Light	25	--21875	Resistor, 100,000 Ohm. $\frac{1}{2}$ W.
2	G3-37965	Socket Assy., Dial Light	26	--35929-C	Resistor, 150,000 Ohm. $\frac{1}{2}$ W.
3	G81-32000	Coil Antenna—2350—7000 Kc.	27	--33344	Resistor, 400,000 Ohm. $\frac{1}{2}$ W.
4	G 65-32002	Coil—2350—7000 Kc., Osc.	28	--37245-C	Resistor, 1.5 Megohm. $\frac{1}{2}$ W.
5	G 66-32002	Coil—540—1725 Kc., Osc.	29	--36316	Resistor, 2,700 Ohm. $\frac{1}{2}$ W.
6	G118-32004	Coil—Assy., 1st I-F.	30	W-28106	Resistor, 500 Ohm. $\frac{1}{2}$ W. Flex.
7	G 72-32004	Coil—Assy., 2nd I-F.	31Z	W-37246	Resistor, 1,000 Ohm
8	W-36055	Cond. 35 Mf. 400 V.	31Y	W-37246	Resistor, 2,000 Ohm
9	W-36057	Cond. 40 Mf. 300 V.	31X	W-37246	Resistor, 185-185 Ohm
10	W-30270	Cond. .001 Mf. 400 V.	32	G47-28807	Socket—Type 6A7
11	W-30805	Cond. .01 Mf. 400 V.	33	G75-28807	Socket—Type 6D6
12Z	W-30322-A	(Cond. .00017 Mf.)	34	G80-28807	Socket—Type 76
13	W-23615	Cond. .006 Mf.	35	G41-28807	Socket—Type 75
14	W-23191-A	Cond. .01 Mf. 400 V.	36	G80-28807	Socket—Type 6B5
15 AZ	W-28623	Cond. .02 Mf. 400 V.	37	W-27981	Base—Tube Shield
15 BY	W-28623	Cond. .02 Mf. 400 V.		W-40911	Shield—Tube
16	W-27216	Cond. .05 Mf. 200 V.		244-BL-9	Speaker, "B" Spec. 50A-2
17 Z	W-31052	Cond. .004 Mf. 400 V.		--42928	Cone Assy., For above Speaker
18	W-37732	Cond. .3 Mf. 160 V.		--41473	Output Trans., For above Speaker
19	W-37241	Cond. 4 Section Trimmer		632-CJ-3	Speaker, "M" Spec. 1-D-610
20	G 31-33006	Cond. Series Trimmers		--42879	Cone Assy., For above Speaker
21	G 17-33001	Cond. Var. Tuning		--42880	Field Coil, For above Speaker
	W-41736	Drive Unit, 8Pt. Disc Assy.	38	--42881	Output Trans., For above Speaker
	W-41897	Dial-Calibrated Glass	39	--42879	Switch, Band Sel.
	W-41737	Mtg. Brkt. Dial Glass R.H.	40	W-36184-A	Switch, Tone Con.
	W-41738	Mtg. Brkt. Dial Glass L.H.	41	G1-26719	Terminal Board, Ant. & Grid
	W-41739	Drive Unit	42	--41978	Transformer, 110 V.—60 Cy. Power
	B-42617	Dial (Calibrated)	43	--37395	Volume Control (3 Meg.) 1st A-F
	MG-14-41980	Dial Glass, Mtg. Brkt. R.H.	44	NONE	Volume Control (1 Meg.) Output Grid
	W-40798	Dial Glass, Mtg. Brkt. L.H.		--35601	Resistor, 300,000 Ohm $\frac{1}{2}$ W.
	W-40797-A	Dial Glass, Retaining Brkt.		B-40590	Output Grid to Grd.*
	W-42629	Pointer—Dial		W-42345	Escutcheon, (666)
	W-40795	Shaft—Pointer		D-28	Escutcheon Mtg. Screws
	W-40909	Washer (Spring) Shaft		W-37339	Knob, (2) V.C. & S.S.
	W-41611	Ring—Shaft, Retaining		W-37341	Knob, (2) T.C. & B. S. W.
	B-42374-A	Mask (Metal) Dial		W-36287	Volume Control, 3 Meg.*
22	W-33906-A	Cord & Plug—Power		AG	Cabinet Model 666
23	W-5370-A	Resistor, 20,000 Ohm 1 W		MA	Cabinet Model 5666
24	W-35928	Resistor, 60,000 Ohm $\frac{1}{2}$ W			

*May be used in place of Dual Volume Control.

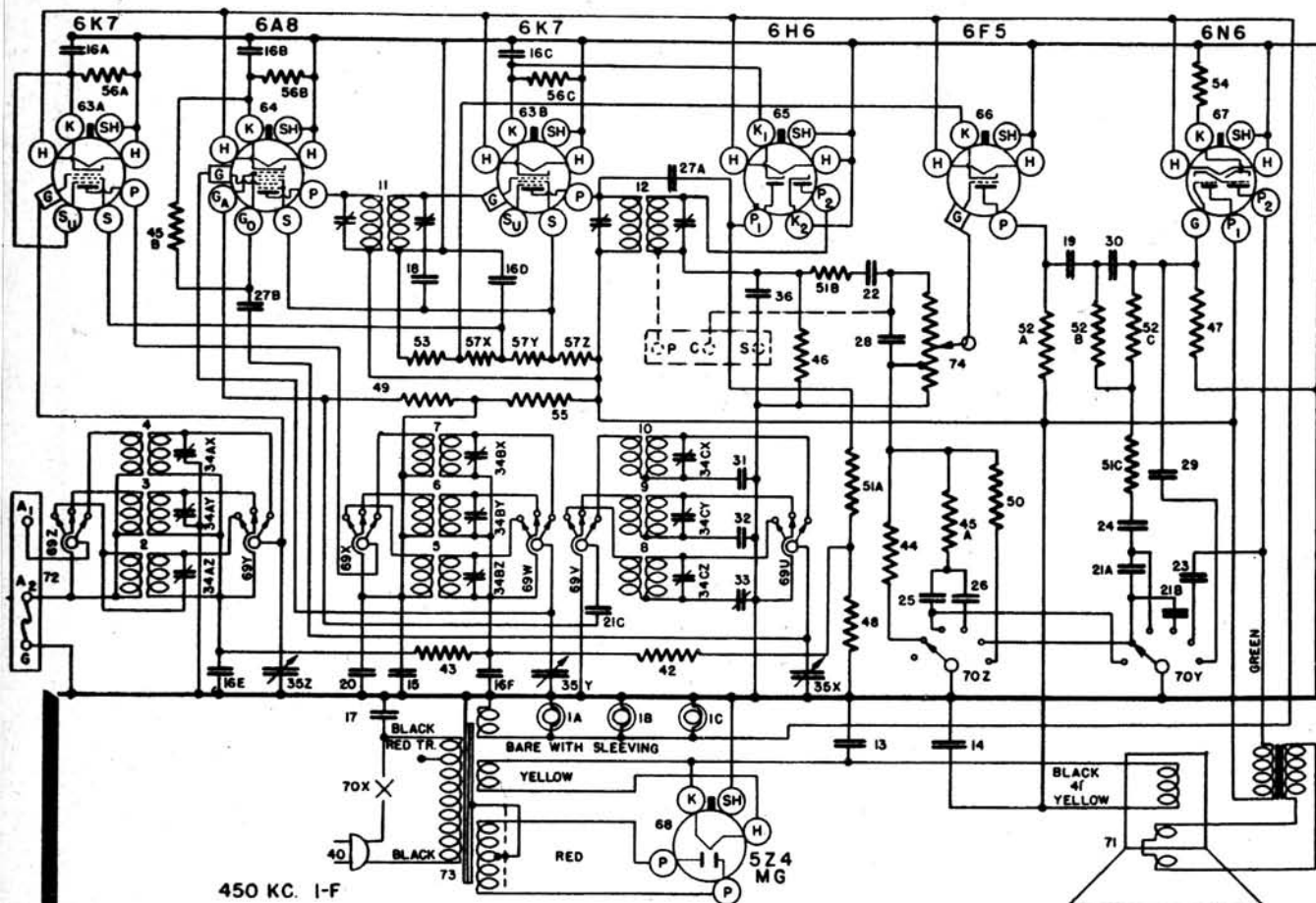


The Crosley Corp.

450 KC. I-F

WIRING DIAGRAM—MODELS 666 AND 5666

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



WIRING DIAGRAM—MODEL 726

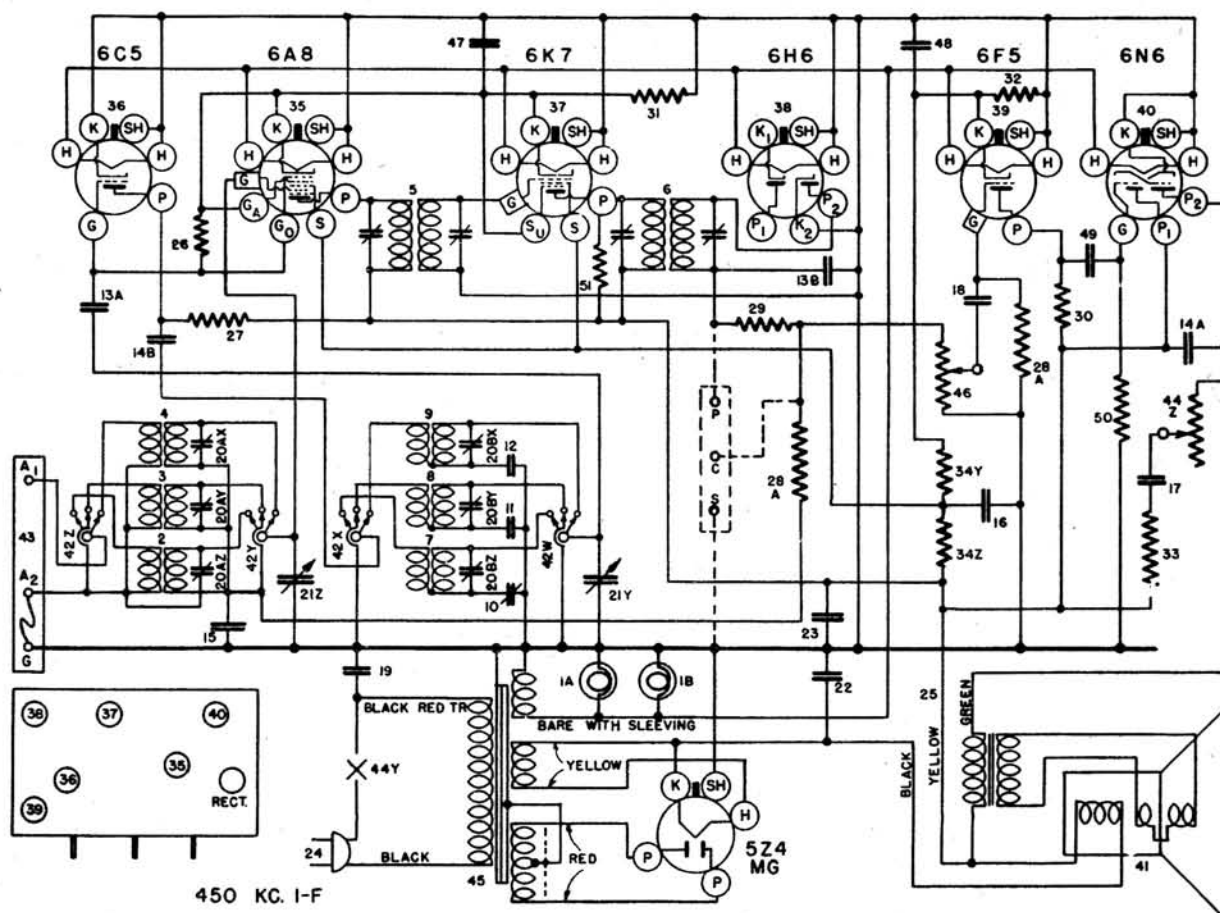
The Crosley Corp.

PARTS LIST—MODEL 726

Figures in first column refer to parts in Diagrams.

Plasma in first column refer to parts in Diagram.					
Item No.	Part No.	Description	Item No.	Part No.	Description
1ABC	W -3792Z	Dial Light	44	-3631B	Resistor, 75,000 Ohm. 1/4 W.
2	G3 -3796S	Socket Assy. Dial Light	45B	-3632B	Resistor, 60,000 Ohm. 1/4 W.
3	G111 -3200Q	Coil Ant. 540-1500 Kc.	46	-36321	Resistor, 400,000 Ohm. 1/4 W.
4	G111 -3200Q	Coil Ant. 6-18 Mc.	47	-36623	Resistor, 750 Ohm. 1/4 W.
5	G76 -32001	Coil R. F. 540-1500 Kc.	48	-36624	Resistor, 750 Ohm. 1/4 W.
6	G89 -32001	Coil R. F. 1800-6000 Kc.	49	-37277	Resistor, 20,000 Ohm. 1 W.
7	G90 -32001	Coil R. F. 6-18 Mc.	50	-37319	Resistor, 150,000 Ohm. 1 W.
8	G111 -3200Z	Coil Osc. 540-1500 Kc.	51A1	-35401	Resistor, 300,000 Ohm. 1/4 W.
9	G121 -3200Z	Coil Osc. 1800-6000 Kc.	51B	-35401	Resistor, 300,000 Ohm. 1/4 W.
10	G121 -3200Z	Coil Osc. 6-18 Mc.	51C	-35401	Resistor, 300,000 Ohm. 1/4 W.
11	W -30055	Condenser, 100Mf. 300V.	52A	-35200	Resistor, 200,000 Ohm. 1 W.
12	W -30057	Condenser, 100Mf. 300V.	53	-35200	Resistor, 200,000 Ohm. 1 W.
13	W -11081	Condenser 16MF. 250V.	53	-35200	Resistor, 450 Ohm. 1/4 W. Flex.
14	W -30541	Condenser, 0.02Mf. 100V.	54	-30012A	Resistor, 40 Ohm. 1/4 W. Flex.
15A	W -30541	Condenser, 0.02Mf. 100V.	54	-6705	Resistor, 3500 Ohm. 1 W.
16F	W -30005	Condenser, 0.05Mf. 400V.	56A	-36600	Resistor, 150 Ohm. 1/4 W. Flex.
17	W -35936	Condenser, 0.05Mf. 200V.	56C	-36609	Resistor, 350 Ohm. 1/4 W. Flex.
18	W -32708B	Condenser, 0.05Mf. 400V.	57	-36609	Resistor, 15,000 Ohm. 1 W.
19	W -35139	Condenser, 0.04Mf. 400V.	57	W -37781	Resistor, 4,000 Ohm. 1 W. Cand. Ohm.
20	W -35139	Condenser, 0.04Mf. 400V.	63A	G151 -36400	Socket Type 6K7
21A	W -35139	Condenser, 0.04Mf. 400V.	63B	G151 -36400	Socket Type 6K7
22	W -29621	Condenser, 0.02Mf. 400V.	64	G156 -36400	Socket Type 6A8
23	W -29615	Condenser, 0.05Mf. 400V.	65	G155 -36400	Socket Type 6H6
24	W -30223	Condenser, 0.05Mf. 400V.	66	G154 -36400	Socket Type 6F5
25	W -29619	Condenser, 0.03Mf. 200V.	67	G115 -36400	Socket Type 6X4
26	W -25433	Condenser, 0.03Mf. 100V.	68	G154 -36400	Socket Type 5Z4
27A	G2 -3400Z	Condenser, 0.0001Mf. (Micra)	70	C -40910A	Band Selector Switch
27B	G2 -3400Z	Condenser, 0.0001Mf. (Micra)	70Z	F151 -37163	Field Switch
28	G8 -3400Z	Condenser, 0.0002Mf. (Micra)	70X	-4283C	Field Switch
29	G3 -3400Z	Condenser, 0.0002Mf. (Micra)	71	-4283C	Field Switch
30	G6 -3400Z	Condenser, 0.0002Mf. (Micra)	72	G27 -32119	Ant. & Grid Terminal Assy.
31	G20 -3400Z	Condenser, 0.010Mf. (Micra)	73	-42260	Power Trans. 60 Cy. 110 V.
32	W -40799	Condenser, B. C. Spec. Series Trim.	74	-42261	Power Trans. 300 Cy. 110 V.
34	W -33651	Condenser, 3 Section Trimmer	75	-42501	Volume Control 3 Meg.
35	G3 -33651	Condenser, 3 Gang Var. Tuning			
MG321	C -42255	Dial Drive Assy.			
C	C -42261	Dial Guss (Calibrated)			
	C -42597	Drive Unit			
	W -42190	Dial Mark (Cardboard)			
	W -41114	Dial Hand, Pointer			
	W -40486	Printer Mkt. Screw			
36	C -1 -3400Z	Condenser, 0.0025 Mf. (Micra)			
37	W -30770	Condenser, 1Mf. 400V.			
38	W -30908A	Power Cord & B. Spec. Series Trim.			
39	G3 -35986	Cable, Speaker			
40	G3 -37345	Resistor, 40 Ohm. 1/4 W.			
41	G3 -35600	Resistor, 100,000 Ohm. 1/4 W.			

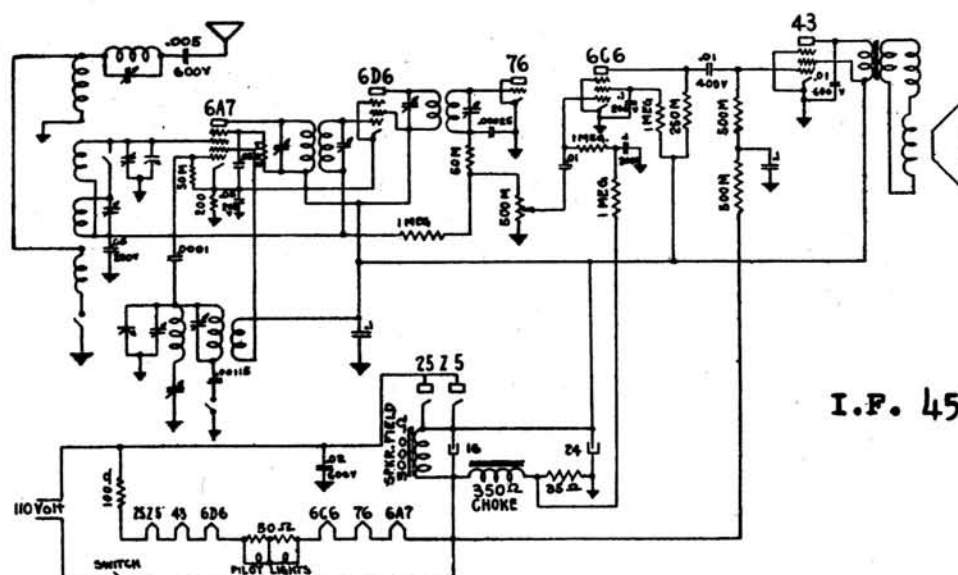
MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



WIRING DIAGRAM—MODEL 716

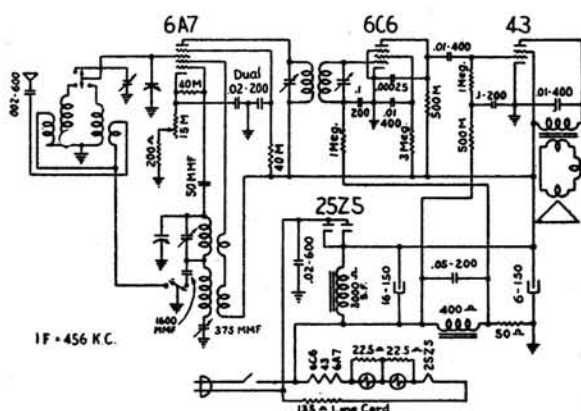
Item No.	Part No.	Name	Item No.	Part No.	Name
-AB	W —37922	Bulb 6-8V., Dial Light	28A	—36688	Resistor, 3 Megohm 1/4 W. (Car.)
	G3 —37965	Socket Assy., Dial Light	28B	—36688	Resistor, 3 Megohm 1/4 W. (Car.)
2	G120 —32000	Coil, Ant. (540-1800 Kc.)	29	—21455	Resistor, 300,000 Ohm 1/4 W. (Car.)
3	G119 —32000	Coil, Ant. (1800-6000 Kc.)	30	—35930	Resistor, 200,000 Ohm 1/4 W. (Car.)
4	G121 —32000	Coil, Ant. (5800-18000 Kc.)	31	W —21964	Resistor, 155 Ohm 3/4 W. (Flex.)
5	G122 —32004	Coil Assy. 1st I-F (450Kc.)	32	W —35457	Resistor, 210 Ohm 3/4 W. (Flex.)
6	G123 —32004	Coil Assy. 2nd I-F (450Kc.)	33	W —27503	Resistor, 1400 Ohm 3/4 W. (Flex.)
7	G112 —32002	Coil, Osc. (510-1800 Kc.)	34Z	W —32301	Resistor, 10,000 Ohm Candeohm
8	G111 —32002	Coil, Osc. (1800-6000 Kc.)	34Y	W —32301	Resistor, 15,000 Ohm Candeohm
9	G123 —32002	Coil, Cs. (5800-18000 Kc.)	35	G156 —36400	Socket Type 6A8
10	—40769	Con.J. 400-500 M.m.	36	G152 —36400	Socket Type 6C5
11	G7 —34007	Cond. 1750 Mmf.	37	G151 —36400	Socket Type 6K7
12	G 8 —34007	Cond. 4350 Mmf.	38	G155 —36400	Socket Type 6H6
13A	G 2 —34002	Cond., .0001 Mf. (Molded)	39	G158 —36400	Socket Type 6F5
13B	G 2 —34002	Cond., .0001 Mf. (Molded)	40	G165 —36400	Socket Type 6N6
14A	W —35139	Cond., .004 Mf. 400V. (Tub.)	41	332-BJ3	Speaker "M" Snc. 1-D-390
14B	W —35139	Cond., .004 Mf. 400V. (Tub.)		—41638	Core Assy. for "M" 332BJ3
15	W —35936	Cond., .05 Mf. 200V. (Tub.)		—40275	Field Coil for "M" 332BJ3
16	W —24049-B	Cond., .1 Mf. 200V. (Tub.)		—41639	Output Trans. for "M" 332BJ3
17	W —37873	Cond., .1 Mf. 400V. (Tub.)		—40770-A	Switch, Band Selector
18	W —30488	Cond., .02 Mf. 400 V. (Tub.)	42	G27 —26719	Terminal Board, Antenna & Grd.
19	W —30805	Cond., .01 Mf. 400V. (Tub.)	43		
20	W —35951	Cond.-3 Section Trimmer	44Z	—37908	Tone Control, 100,000 Ohm
21	G21 —33001	Cond.-2 Section Tuning	44Y	—37908	Switch, Line
	B —42142-A	Dial-Calibrated Glass	45	—41978	Transformer, 110V. 60 Cy.
	—42346	Drive Unit		—42149	Transformer, 110V. 25 Cy.
	B —42338	Mask-Metal		—42150	Transformer, 220V. 25 Cy.
	—41145	Pointer-Dial		—37967	Volume Control 1 Megohm
	W —40486	Screw, Pointe. Mtg.	46	W —29910-A	Cond., .25 Mf. 200V. (Tub.)
	MG27 —42151	Dial Drive Complete	47	W —28621	Cond., .02 Mf. 200V. (Tub.)
	—41582	Cable, Drive	48	W —35758	Cond., .008, 400V. (Tub.)
22	W —36055	Cond., .35 Mf. 400V. (Elect.)	49	—23785	Resistor, 500,000 Ohm 1/4 W. (Car.)
23	W —36057	Cond., .40 Mf. 300V. (Elect.)	50	W —42345	Escutcheon
24	B —33906-A	Cord and Plug, Power	D	—28	Screw Escutcheon Mtg.
25	G4 —35696	Speaker Cable			
26	—40757	Resistor, 50,000 Ohm 1/4 W. (Car.)			
27	W —37987	Resistor, 15,000 Ohm 1W (Wire Wound)			

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



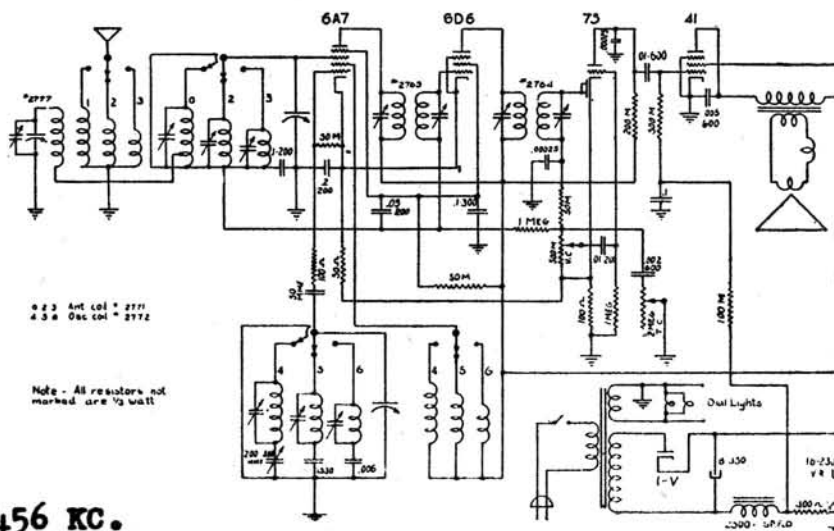
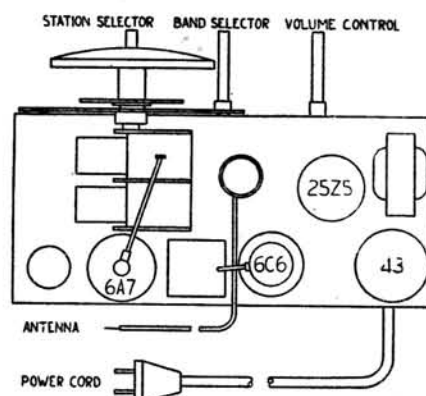
I.F. 456 KC.

MODEL 100A Detrola Radio & Tel. Corp.



I.F. 456 KC.

MODEL 134



I.F. 456 KC.

MODEL 106

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MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

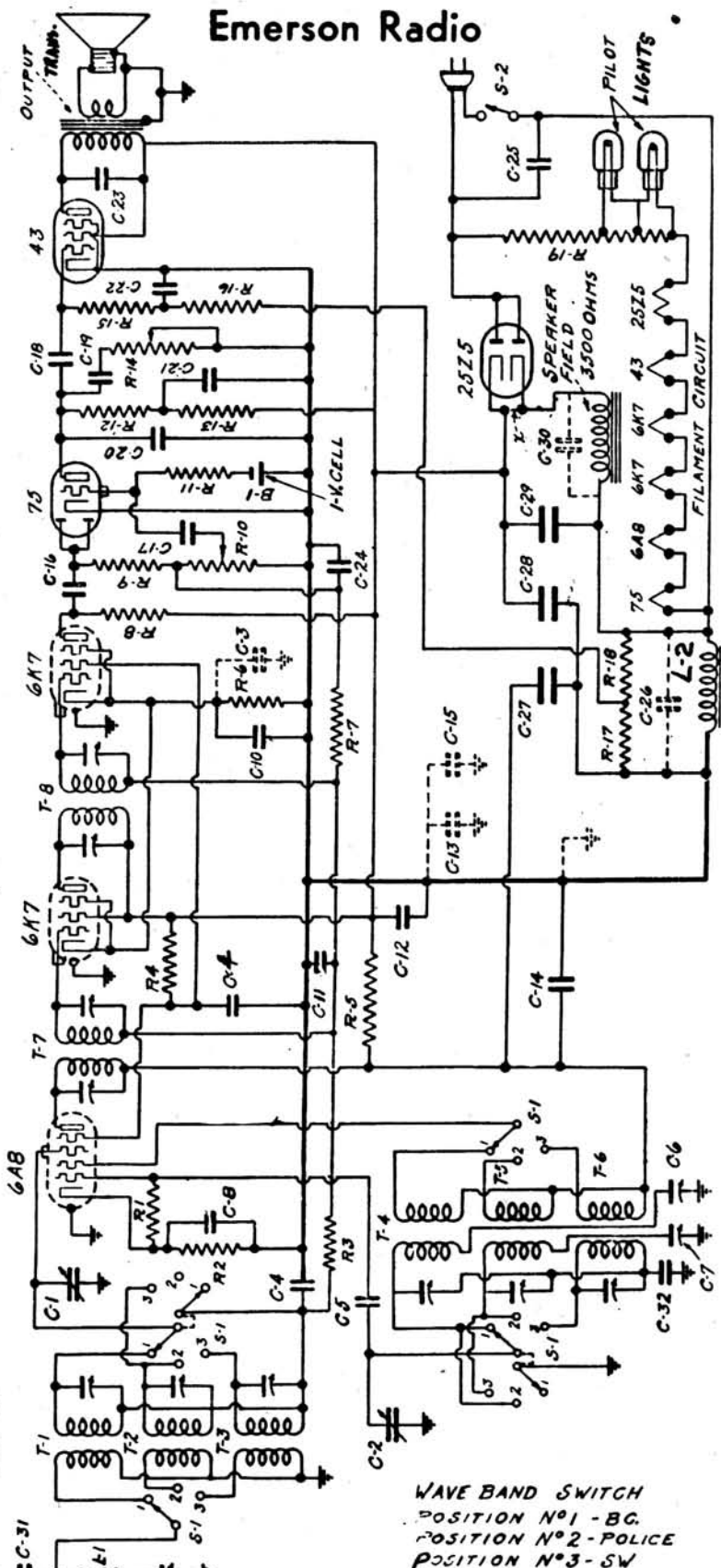
MODELS 107 and 111

Chassis Model U6A

Emerson Radio

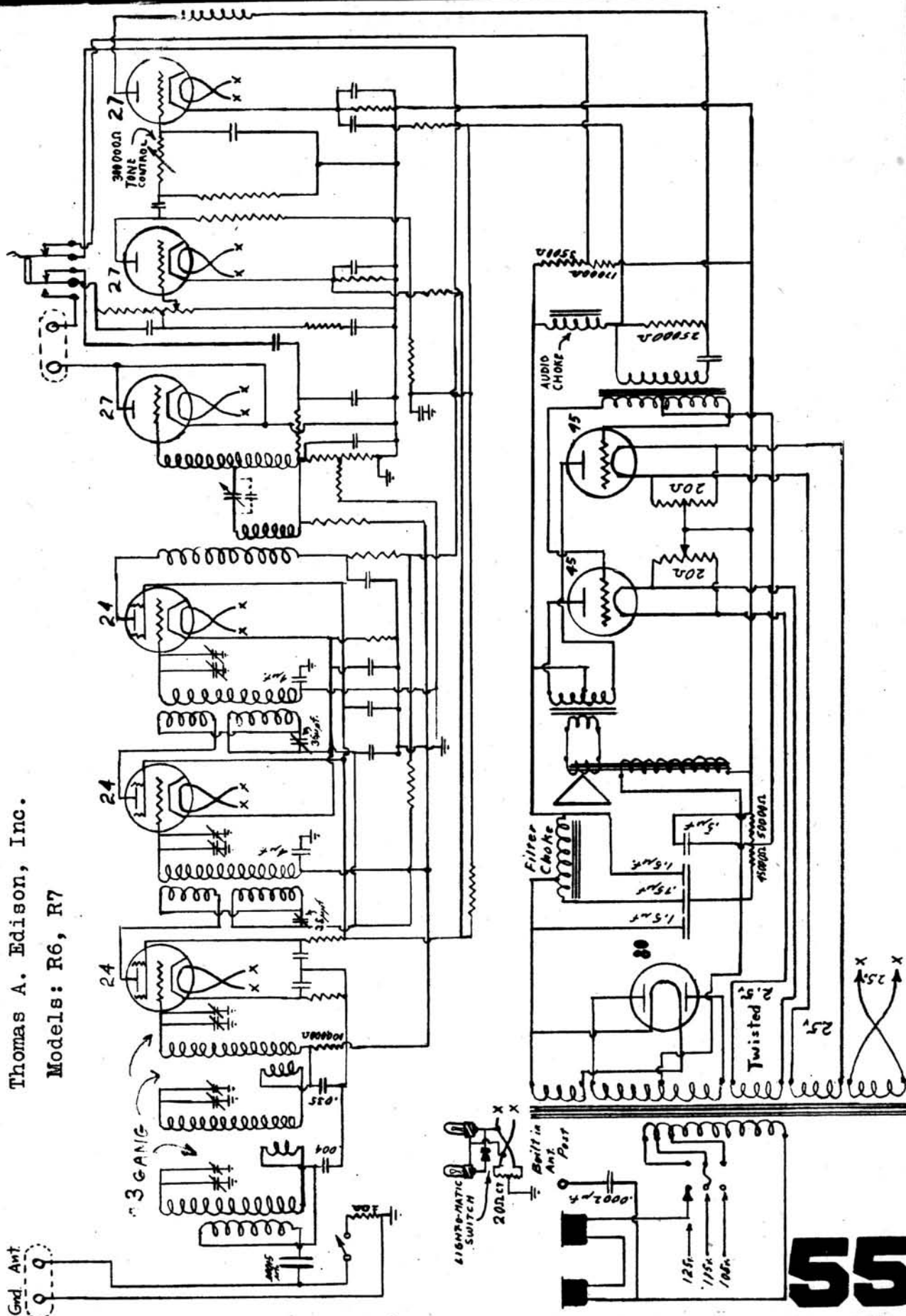
C5	0.0001 mf mica condenser
C6, C7	Dual adjustable padding condenser C6—250 to 550 mmf. C7—800 to 1400 mmf.
C8, C9, C10, C11, C12, C13, C14	Seven-section condenser block C8—0.1 mf, 200 v. C9—0.1 mf, 200 v. C10—0.2 mf, 200 v. C11—0.05 mf, 200 v. C12—0.1 mf, 200 v. C13—0.1 mf, 200 v. C14—0.1 mf, 200 v.
C15, C20, C24	0.02 mf, 200 v. tubular condenser
C16, C18	0.00025 mf mica condenser
C17, C18	0.01 mf, 200 v. tubular condenser
C19	0.006 mf, 200 v. tubular condenser
C23, C31	0.001 mf mica condenser
C26	0.25 mf, 200 v. tubular condenser
C27, C28, C29	4, 8 and 16 mf electrolytic filter condenser block C27—4 mf, 150 v. C28—8 mf, 150 v. C29—16 mf, 150 v.
C30	Tubular 4 mf, 150 v. electrolytic condenser
C32	0.005 mf mica condenser

L1	456 kc adjustable wave-trap
L2	Filter choke—500 ohms
T1, T2, T3	Three-band antenna coil assembly
T4, T5, T6	Three-band oscillator coil assembly
T7	456 kc first i-f transformer
T8	456 kc second i-f transformer
R1, R8	50,000 ohm, 1/4 watt carbon resistor
R2	500 ohm, 1/2 watt wire-wound resistor
R3, R7, R11	1 megohm, 1/4 watt carbon resistor
R4	30,000 ohm, 1/4 watt carbon resistor
R6, R17	10,000 ohm, 1/4 watt carbon resistor
R9, R13	850 ohm, 1/2 watt wire-wound resistor
R10, S2	100,000 ohm, 1/4 watt carbon resistor
R12	Volume control with line switch—0.5 megohms
R14	200,000 ohm, 1/4 watt carbon resistor
R15, R16	Tone control—0.25 megohms
R18	500,000 ohm, 1/4 watt carbon resistor
R19	5,000 ohm, 1/4 watt carbon resistor
C1, C2	Wire-wound ballast resistor—130 ohms
C8, C4, C21, C22, C25	Two-gang variable condenser
C3, C4, C21, C22, C25	0.1 mf, 200 volt tubular condenser

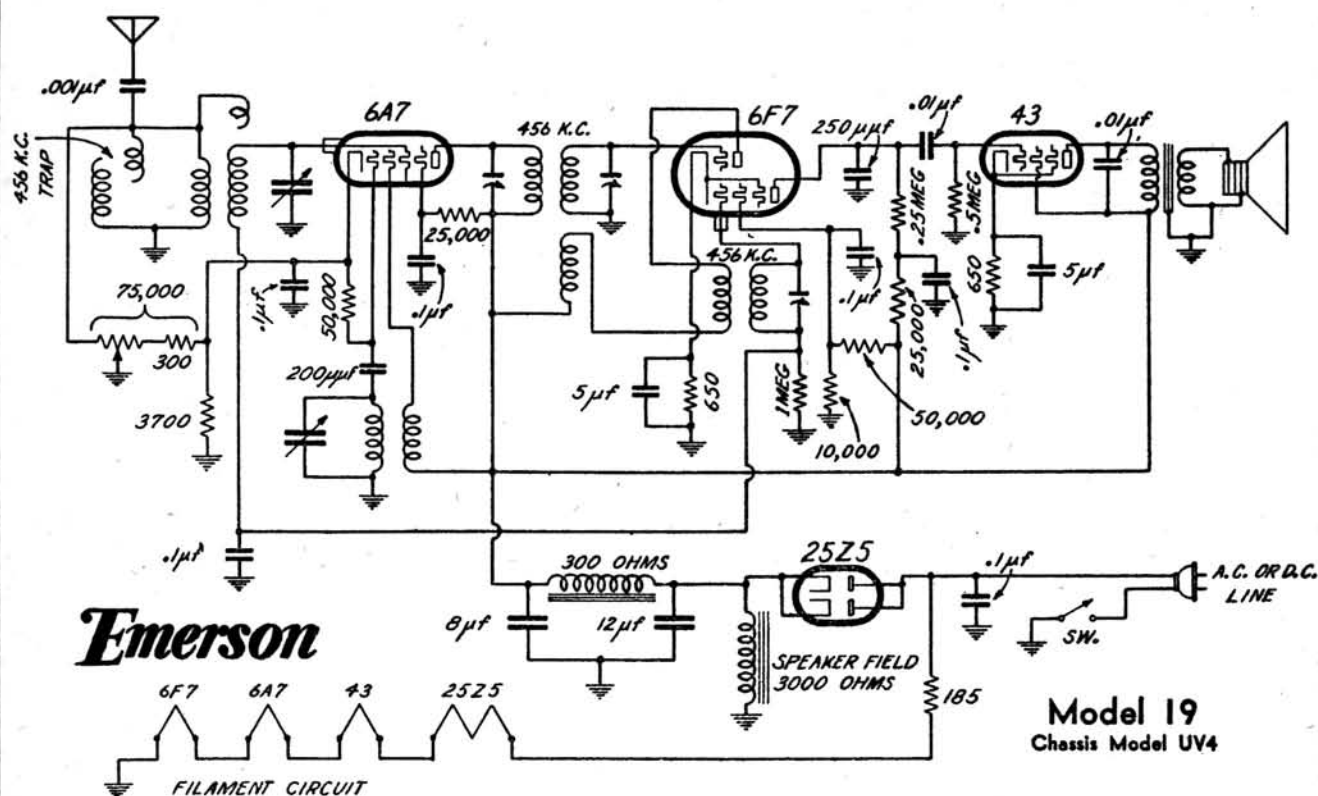


Thomas A. Edison, Inc.

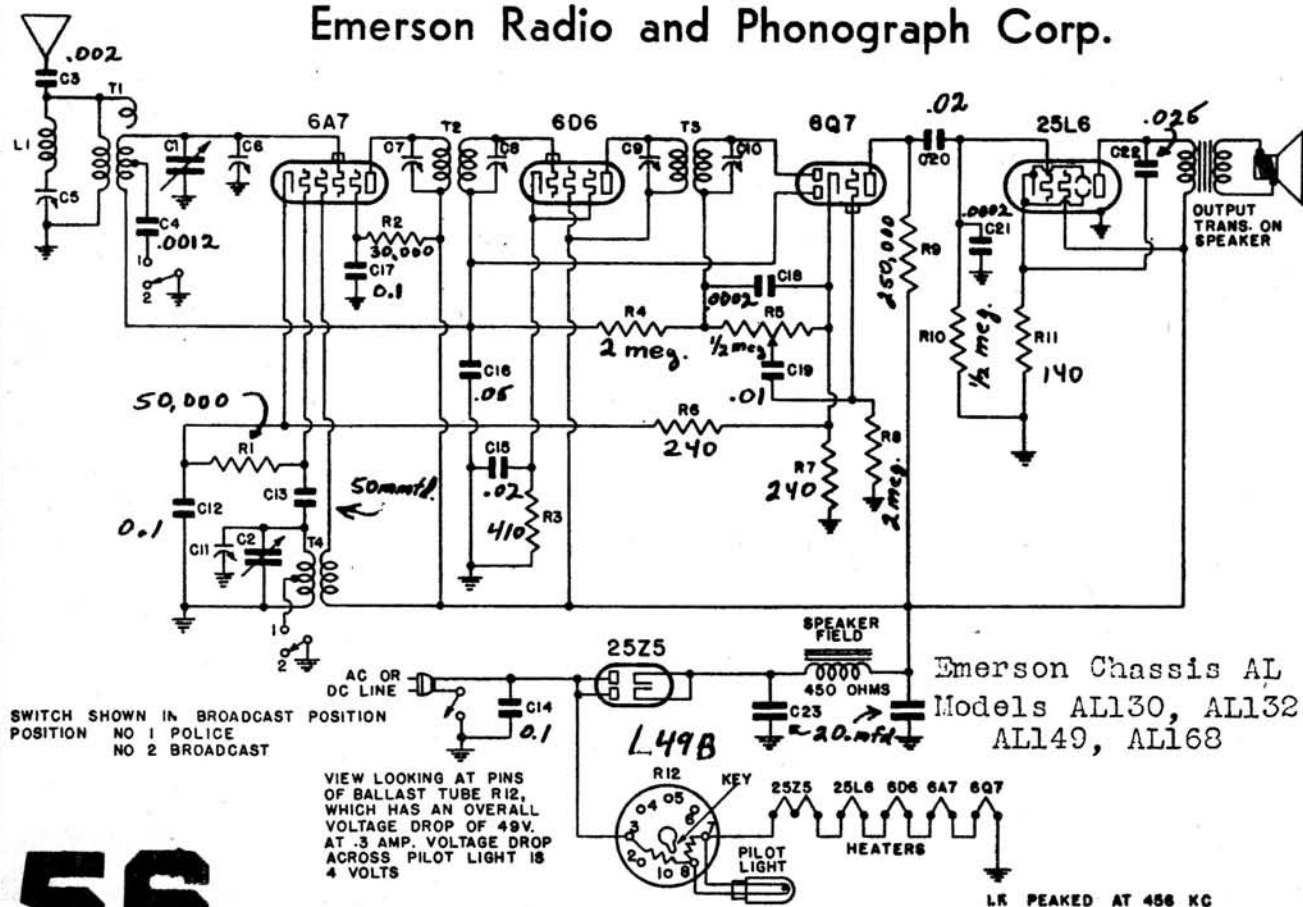
Models: R6, R7



MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



Emerson Radio and Phonograph Corp.

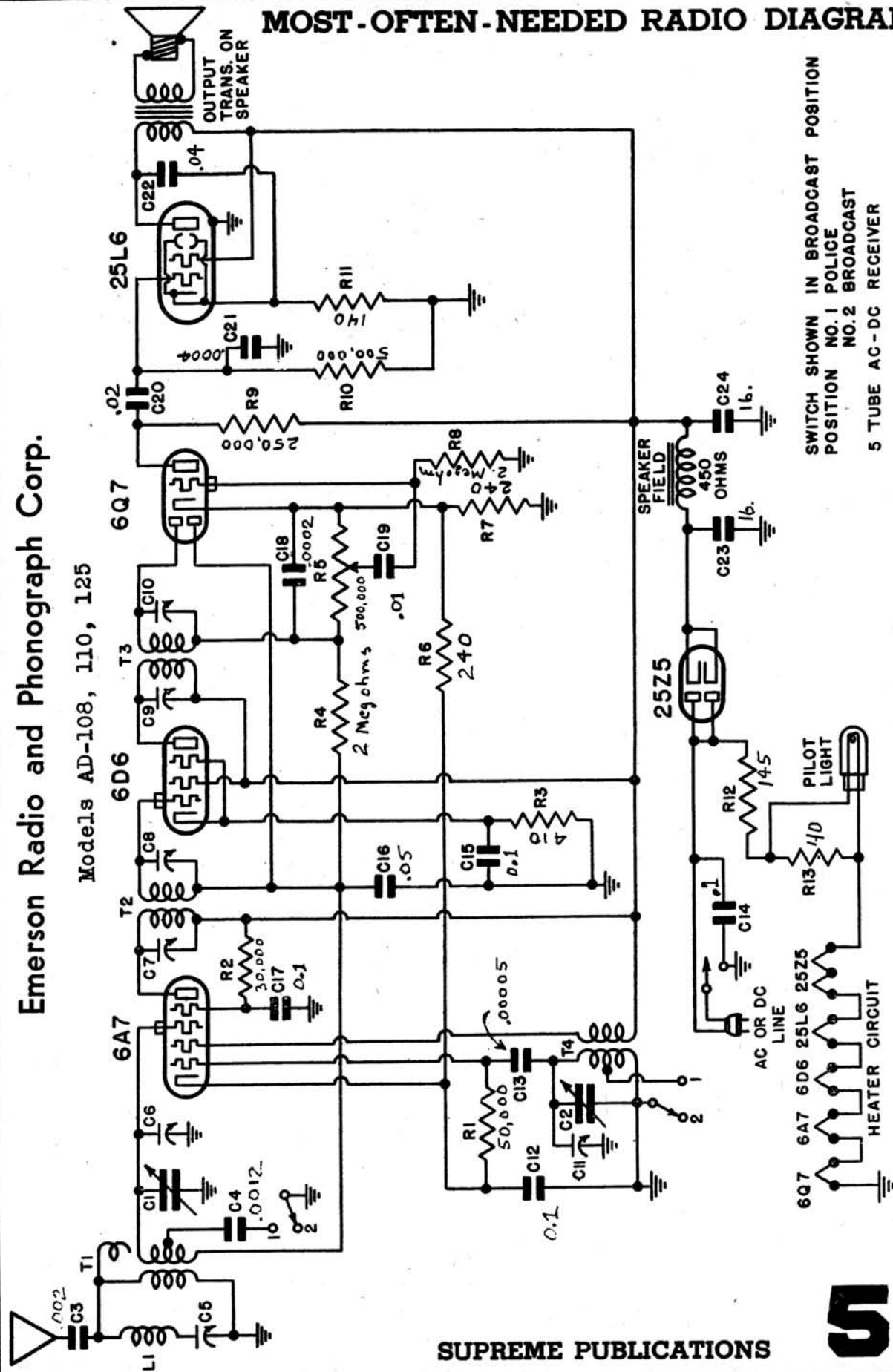


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Emerson Radio and Phonograph Corp.

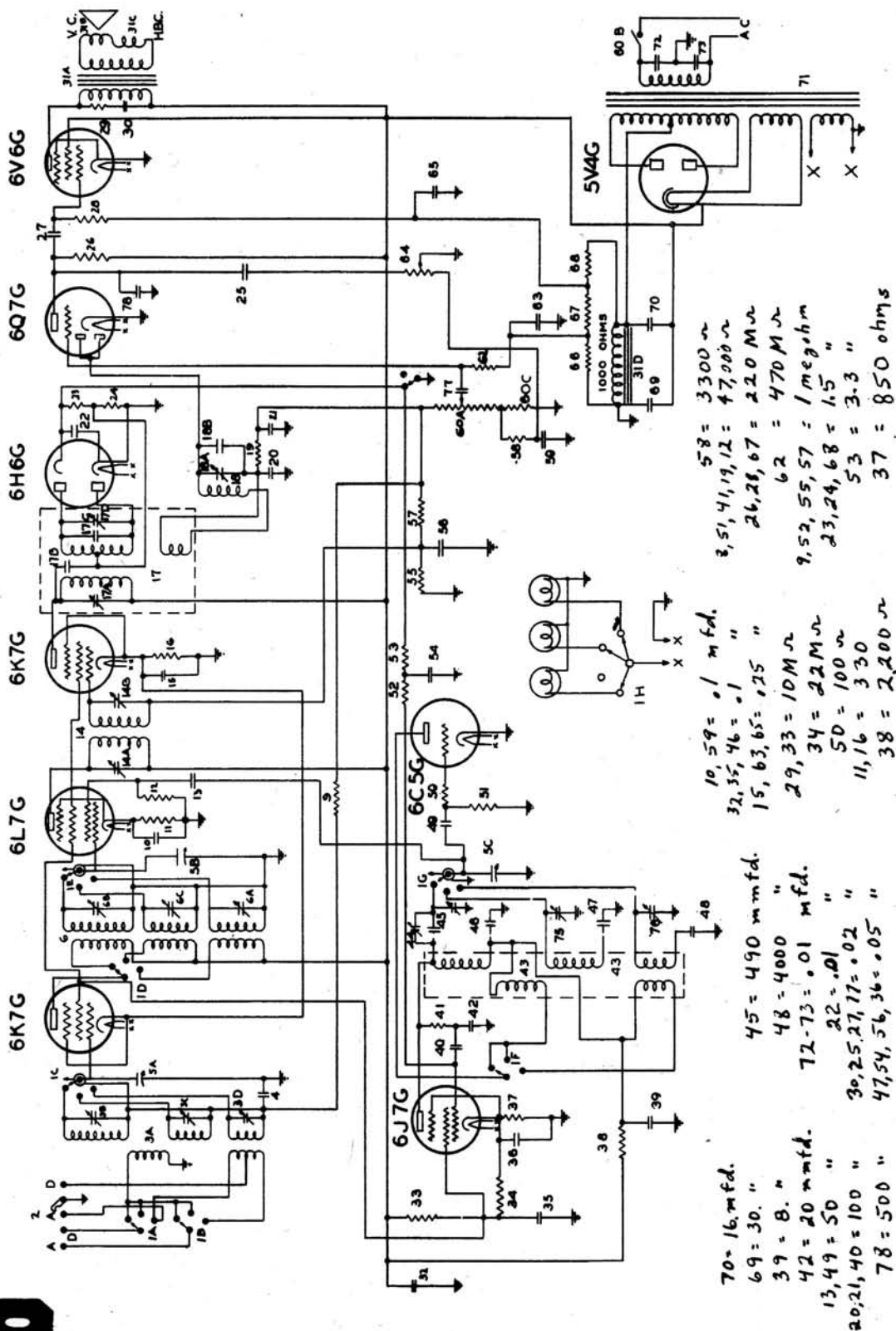
Models AD-108, 110, 125



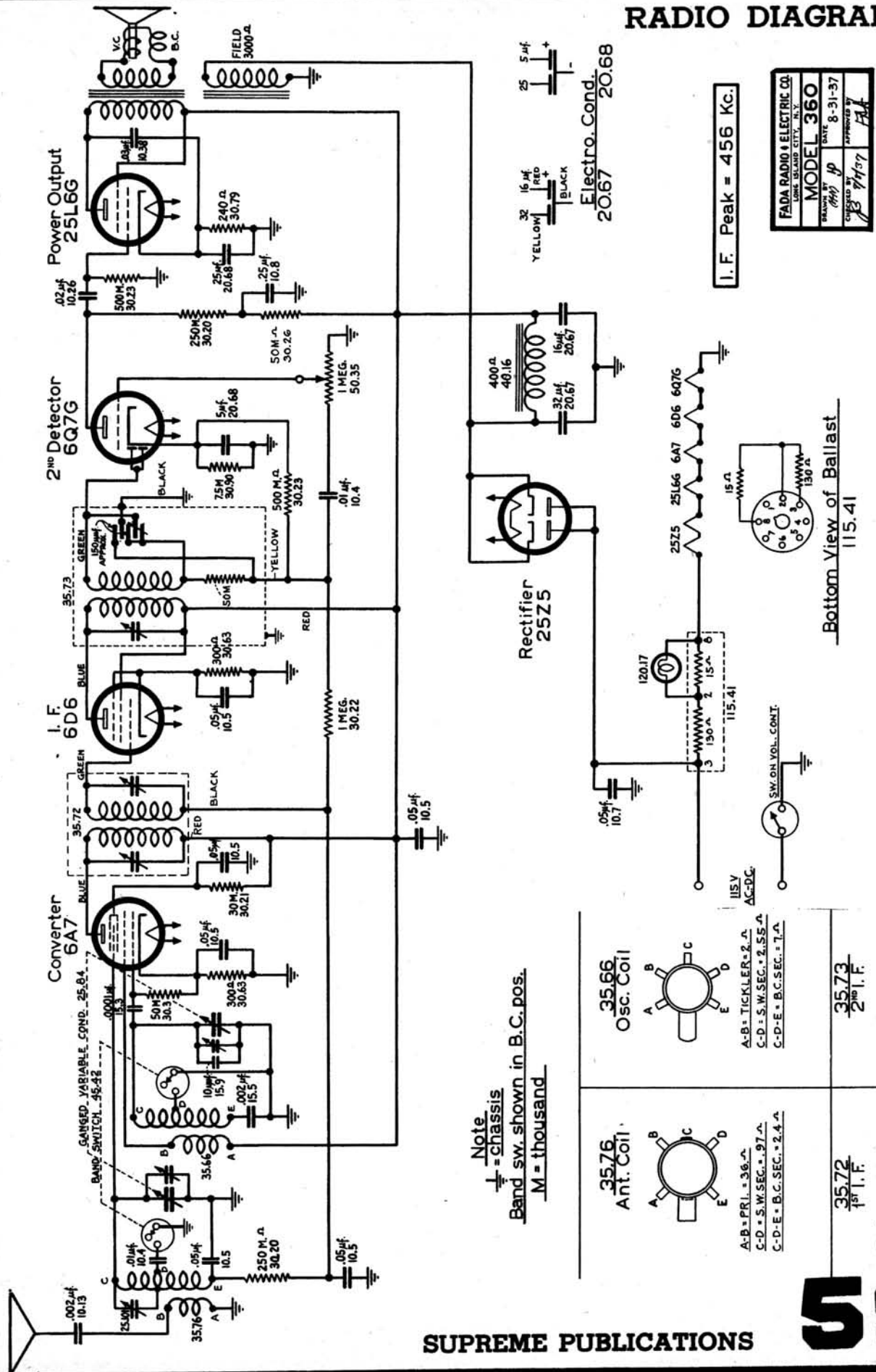
SWITCH SHOWN IN BROADCAST POSITION
POSITION NO.1 POLICE
NO.2 BROADCAST
5 TUBE AC-DC RECEIVER

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

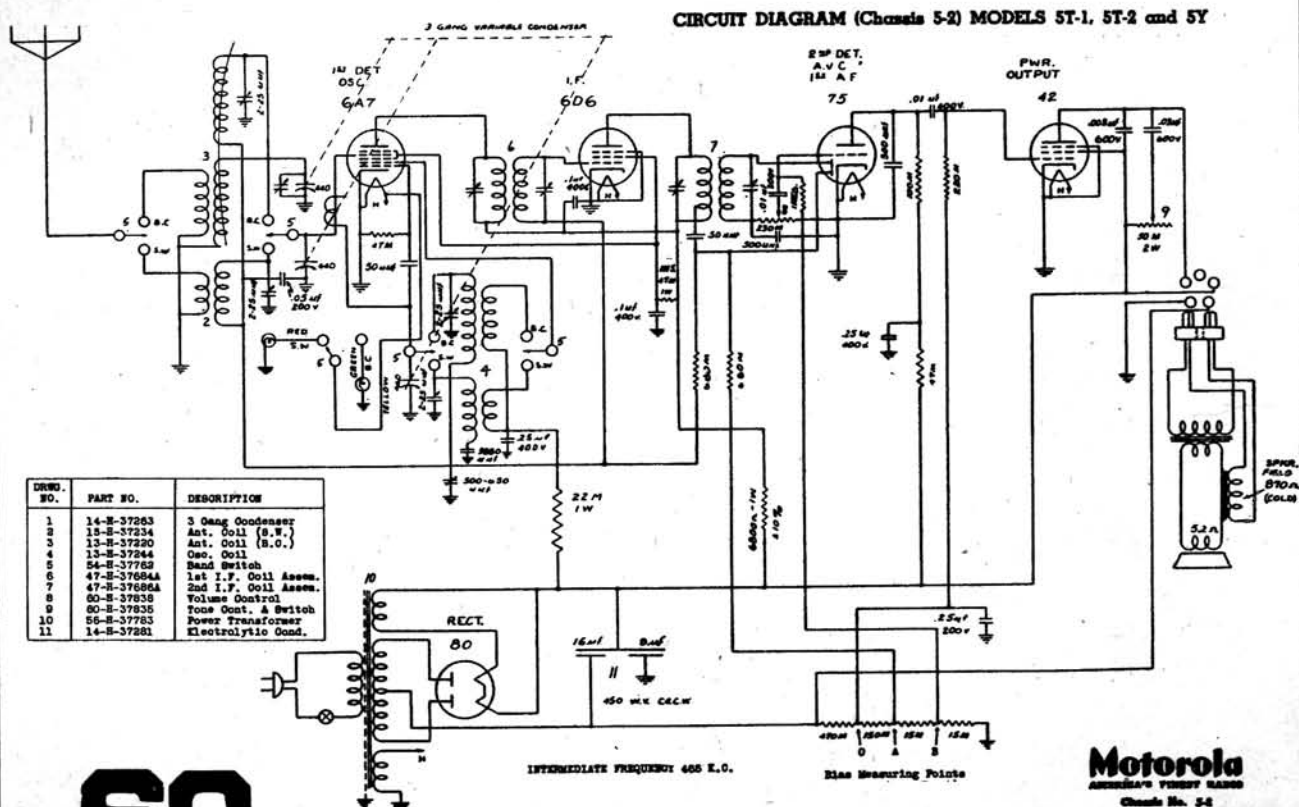
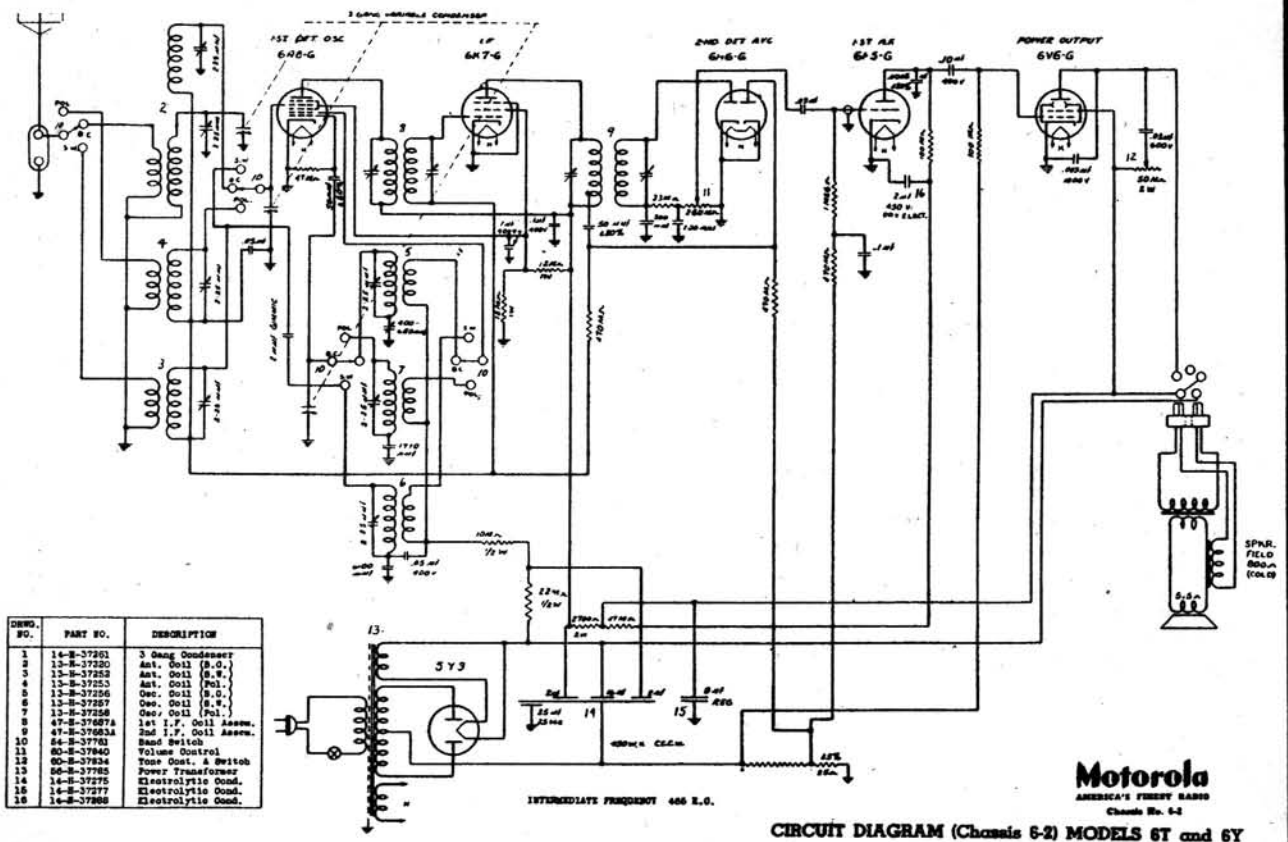
Fairbanks-Morse Radio, Chassis Model 9A



I.F. 456 KC.



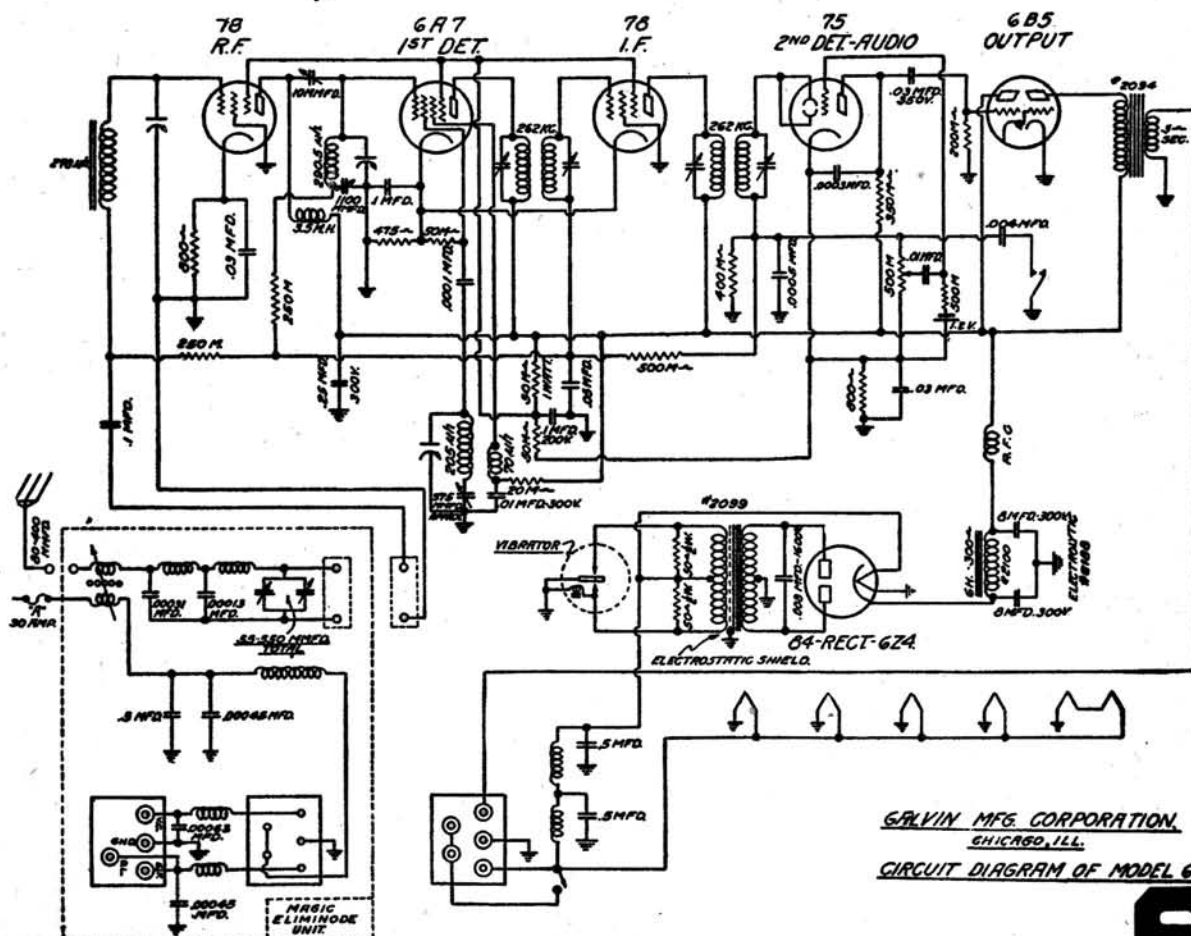
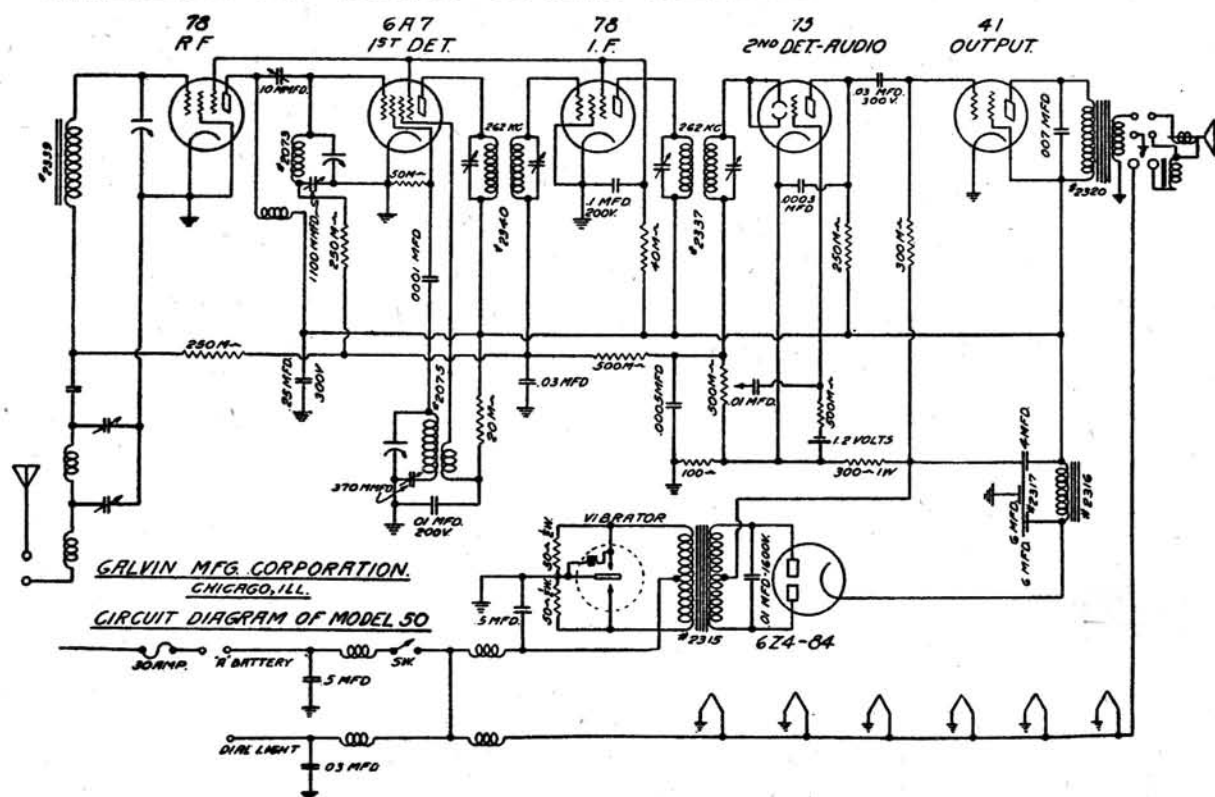
MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



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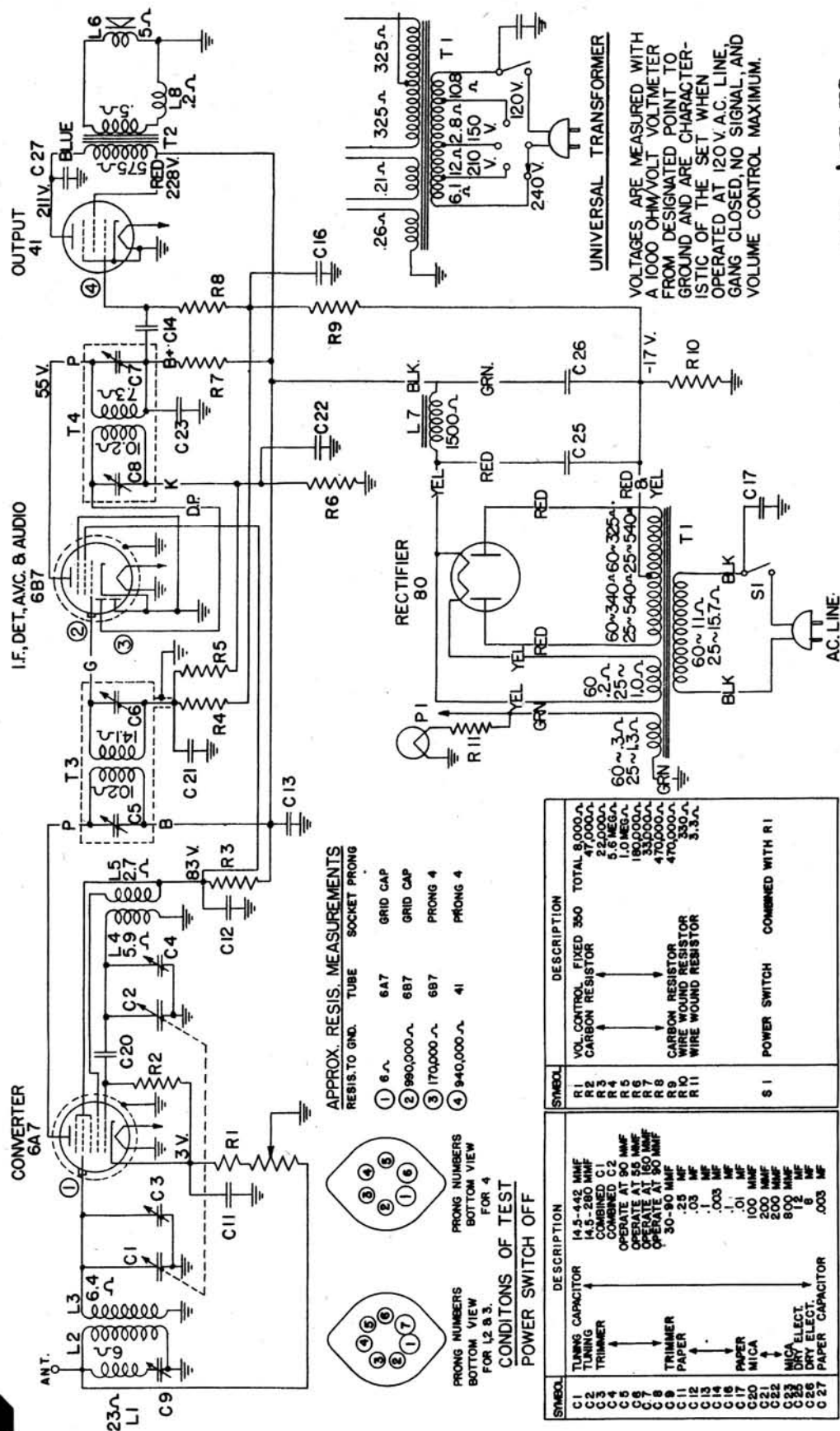
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MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



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MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

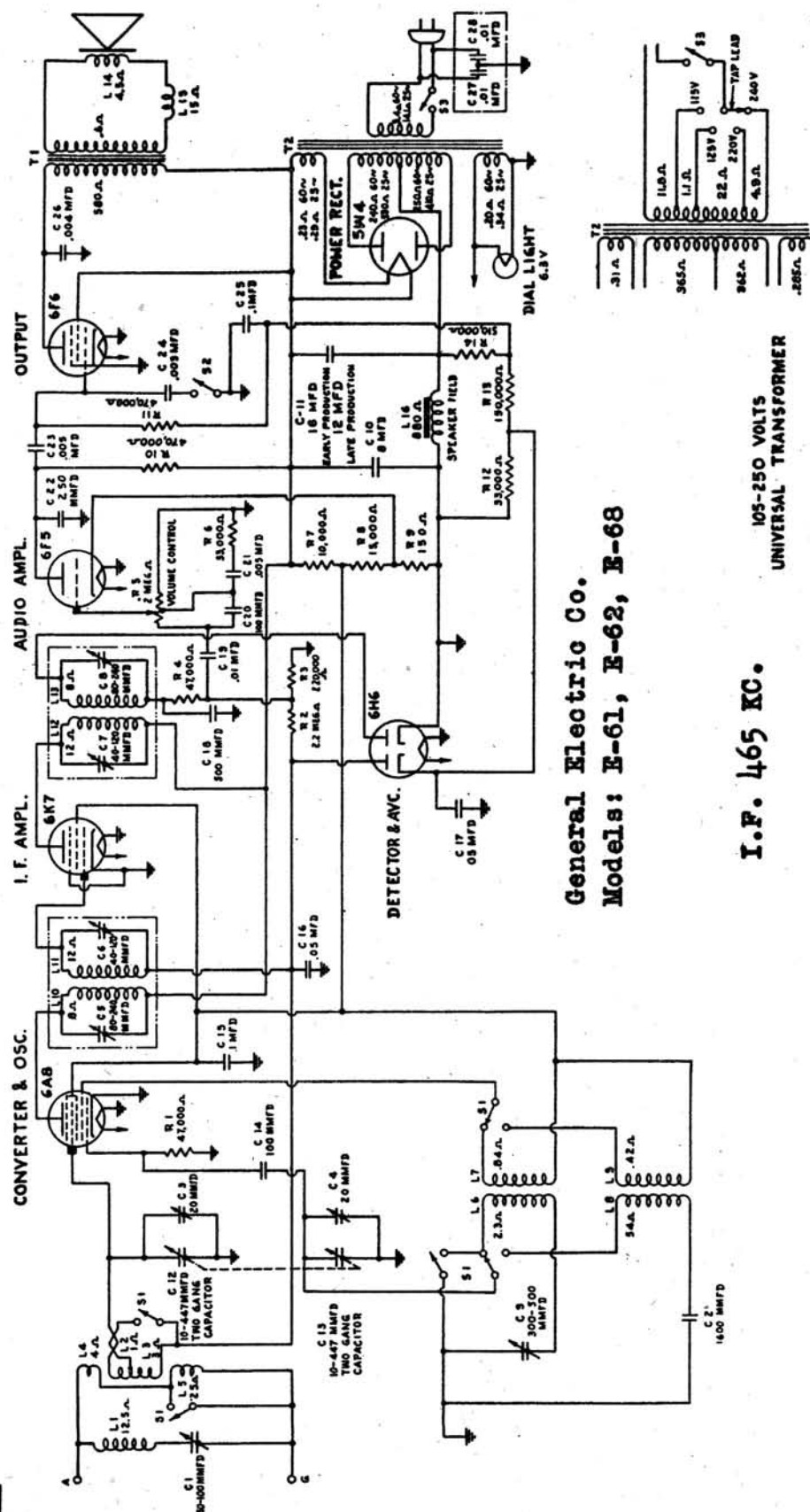


I.F. 455 KC.

Models A-63 and A-65 General Electric Co.



MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



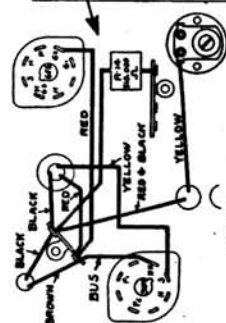
General Electric Co.
Models: E-61, E-62, E-68

I.F. 465 KC.

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

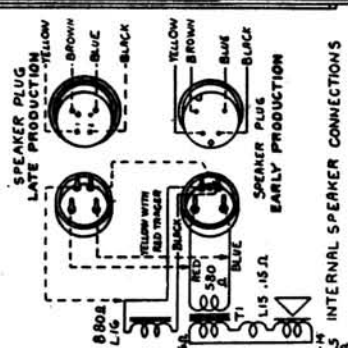
General Electric Radio Receivers, Models E-61, E-62, and E-68

General Electric

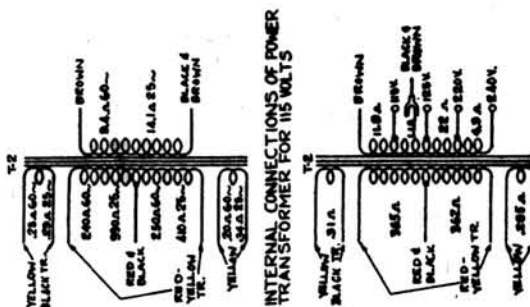
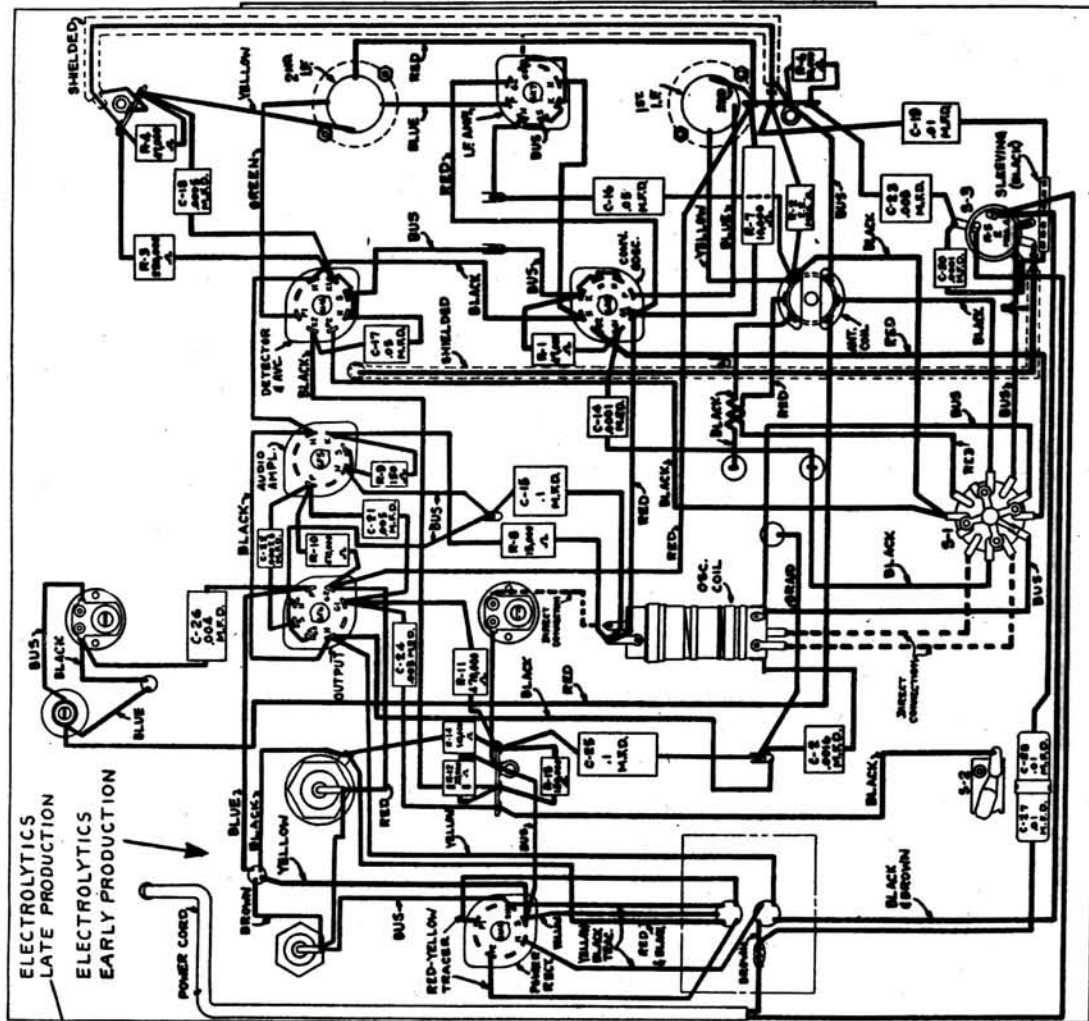


INTERNAL CONNECTIONS OF 12.5 LF TRANSFORMER

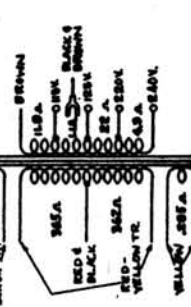
INTERNAL CONNECTIONS OF 2" LF TRANSFORMER



INTERNAL SPEAKER CONNECTIONS



INTERNAL CONNECTIONS OF POWER TRANSFORMER FOR 15 VOLTS



INTERNAL CONNECTIONS OF UNIVERSAL POWER TRANSFORMER FOR 105-260 VOLTS

GENERAL ELECTRIC

ANSWER KEY TO THE

1. A	2. C	3. D	4. B	5. A	6. C	7. D	8. B	9. A	10. C
11. D	12. B	13. A	14. C	15. D	16. B	17. A	18. C	19. D	20. B
21. A	22. C	23. D	24. B	25. A	26. C	27. D	28. B	29. A	30. C
31. D	32. B	33. A	34. C	35. D	36. B	37. A	38. C	39. D	40. B
41. A	42. C	43. D	44. B	45. A	46. C	47. D	48. B	49. A	50. C
51. D	52. B	53. A	54. C	55. D	56. B	57. A	58. C	59. D	60. B
61. A	62. C	63. D	64. B	65. A	66. C	67. D	68. B	69. A	70. C
71. D	72. B	73. A	74. C	75. D	76. B	77. A	78. C	79. D	80. B
81. A	82. C	83. D	84. B	85. A	86. C	87. D	88. B	89. A	90. C
91. D	92. B	93. A	94. C	95. D	96. B	97. A	98. C	99. D	100. B

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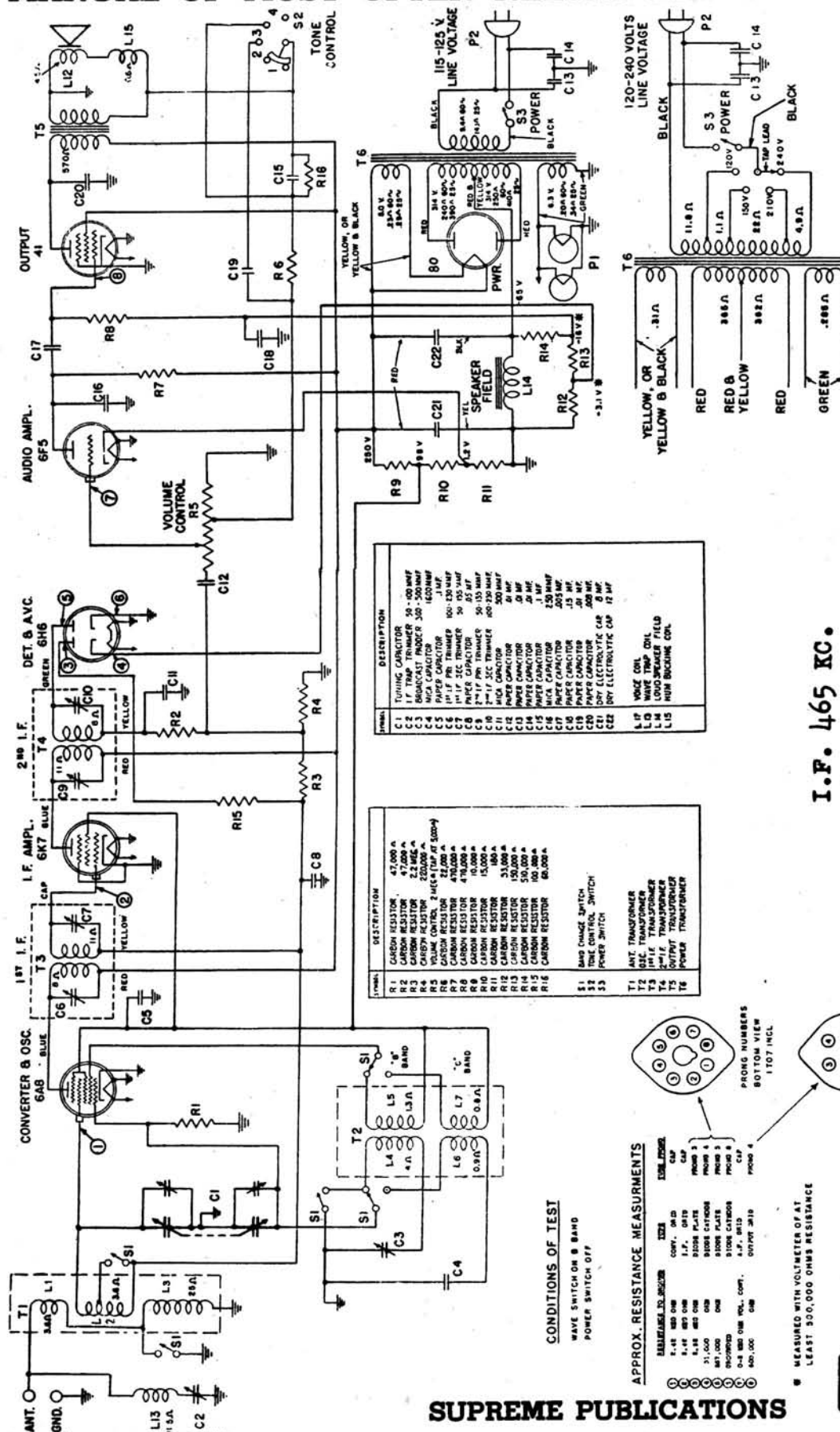
ANSWER KEY TO THE

1. A	2. C	3. D	4. B	5. A	6. C	7. D	8. B	9. A	10. C
11. D	12. B	13. A	14. C	15. D	16. B	17. A	18. C	19. D	20. B
21. A	22. C	23. D	24. B	25. A	26. C	27. D	28. B	29. A	30. C
31. D	32. B	33. A	34. C	35. D	36. B	37. A	38. C	39. D	40. B
41. A	42. C	43. D	44. B	45. A	46. C	47. D	48. B	49. A	50. C
51. D	52. B	53. A	54. C	55. D	56. B	57. A	58. C	59. D	60. B
61. A	62. C	63. D	64. B	65. A	66. C	67. D	68. B	69. A	70. C
71. D	72. B	73. A	74. C	75. D	76. B	77. A	78. C	79. D	80. B
81. A	82. C	83. D	84. B	85. A	86. C	87. D	88. B	89. A	90. C
91. D	92. B	93. A	94. C	95. D	96. B	97. A	98. C	99. D	100. B

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MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



Receivers, Models F-63, F-65 and F-66

General Electric Co.

SUPREME PUBLICATIONS

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MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

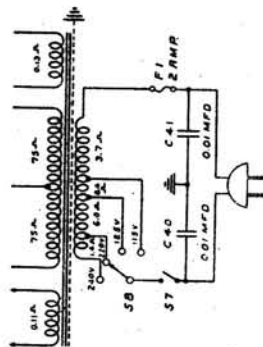
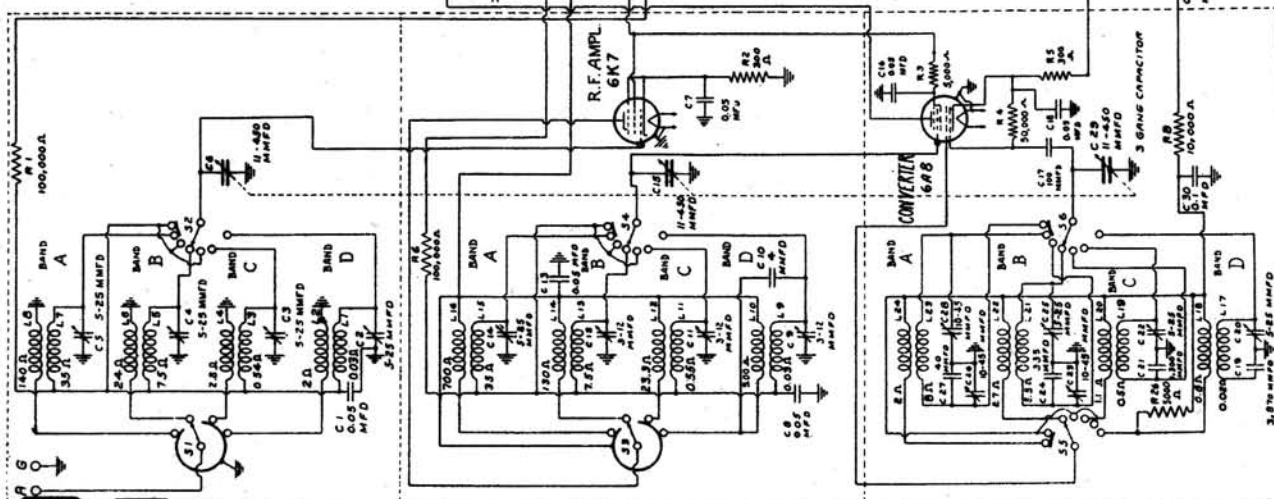
Tubes

R. F. Amplifier.....6K7 Triple-grid Super-control Amplifier
 Converter.....6A8 Pentagrid Converter
 I. F. Amplifier.....6K7 Triple-grid Super-control Amplifier
 Detector and AVC.....6H6 Twin Diode
 Audio Amplifier.....6C5 Detector Amplifier Triode
 Output.....Two 6F6 Power Amplifier Pentodes
 (Push-pull)
 Power Rectifier.....5Z4 Full-wave Rectifier
 Dial Lamps.....MAZDA No. 46

Tuning Frequency Range

Band "A".....140-410 kc
 Band "B".....540-1750 kc
 Band "C".....1.75-6.0 mc (1750-6000 kc)
 Band "D".....6.0-19.5 mc (8000-19,500 kc)

I. F. 465 KC.



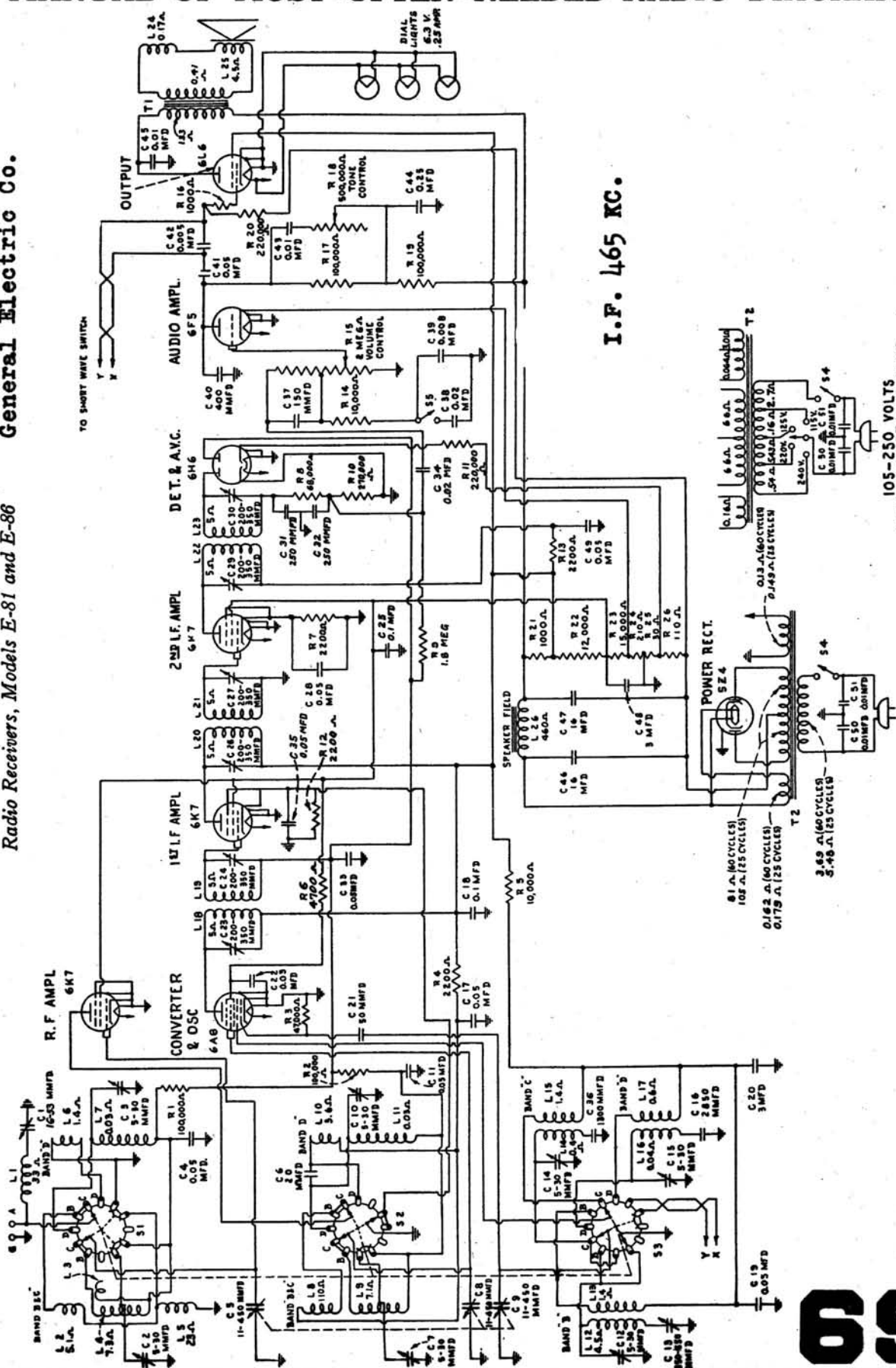
115-240 Volts
 Universal Transformer

MODELS A-82 AND A-87

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

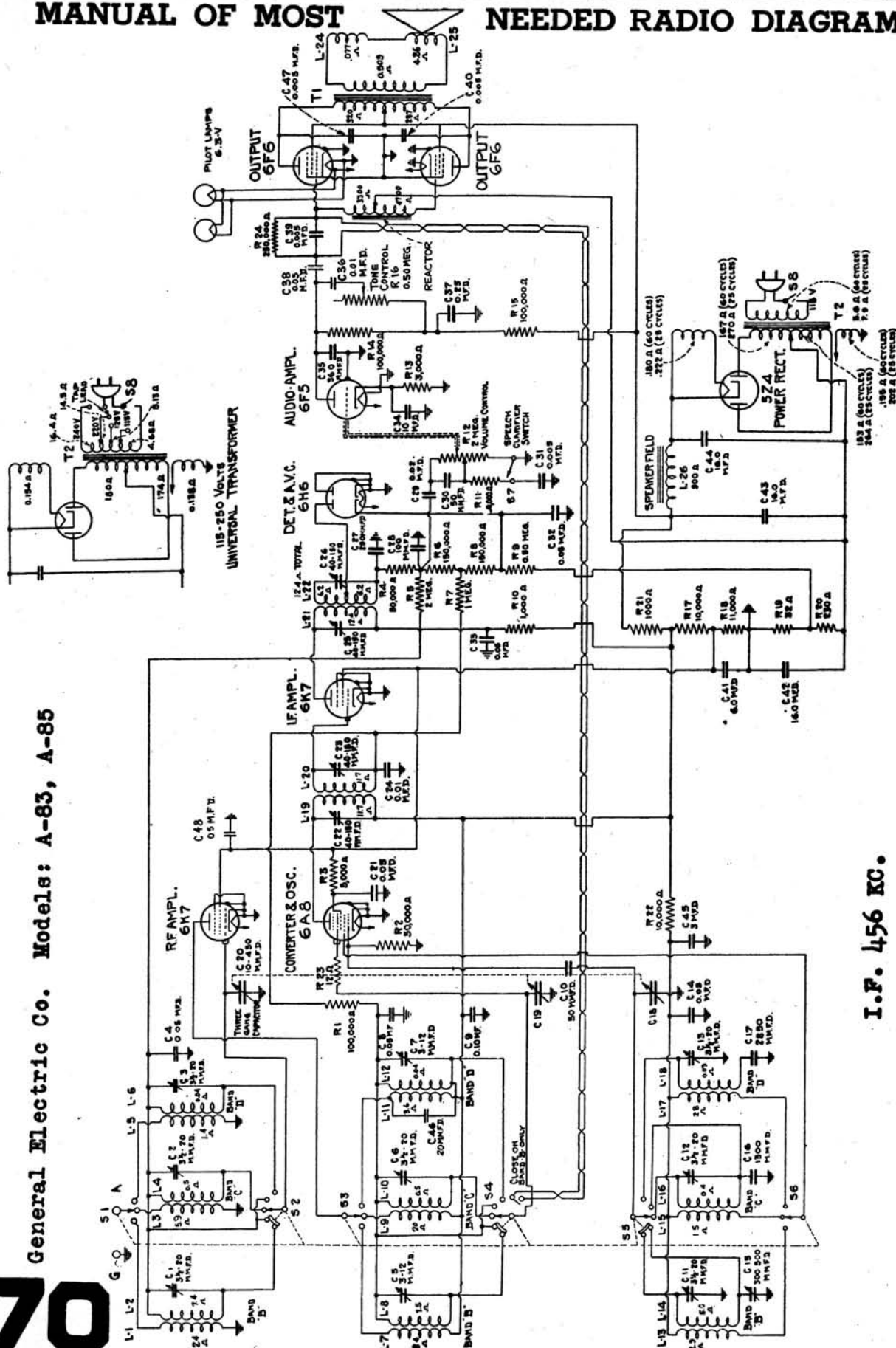
General Electric Co.

Radio Receivers, Models E-81 and E-86



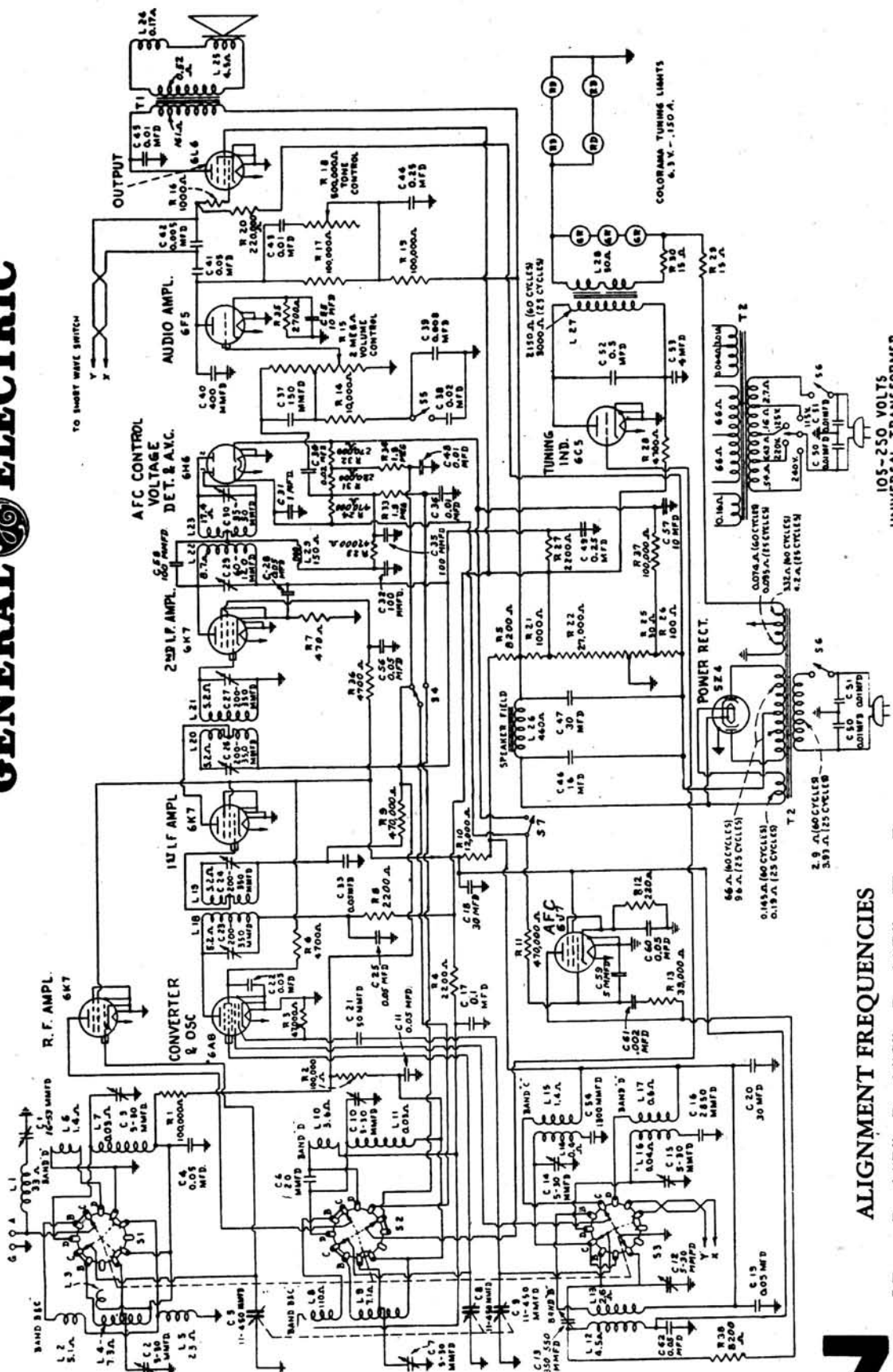
General Electric Co. Models: A-83, A-85

I.F. 456 KC.



MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

GENERAL ELECTRIC

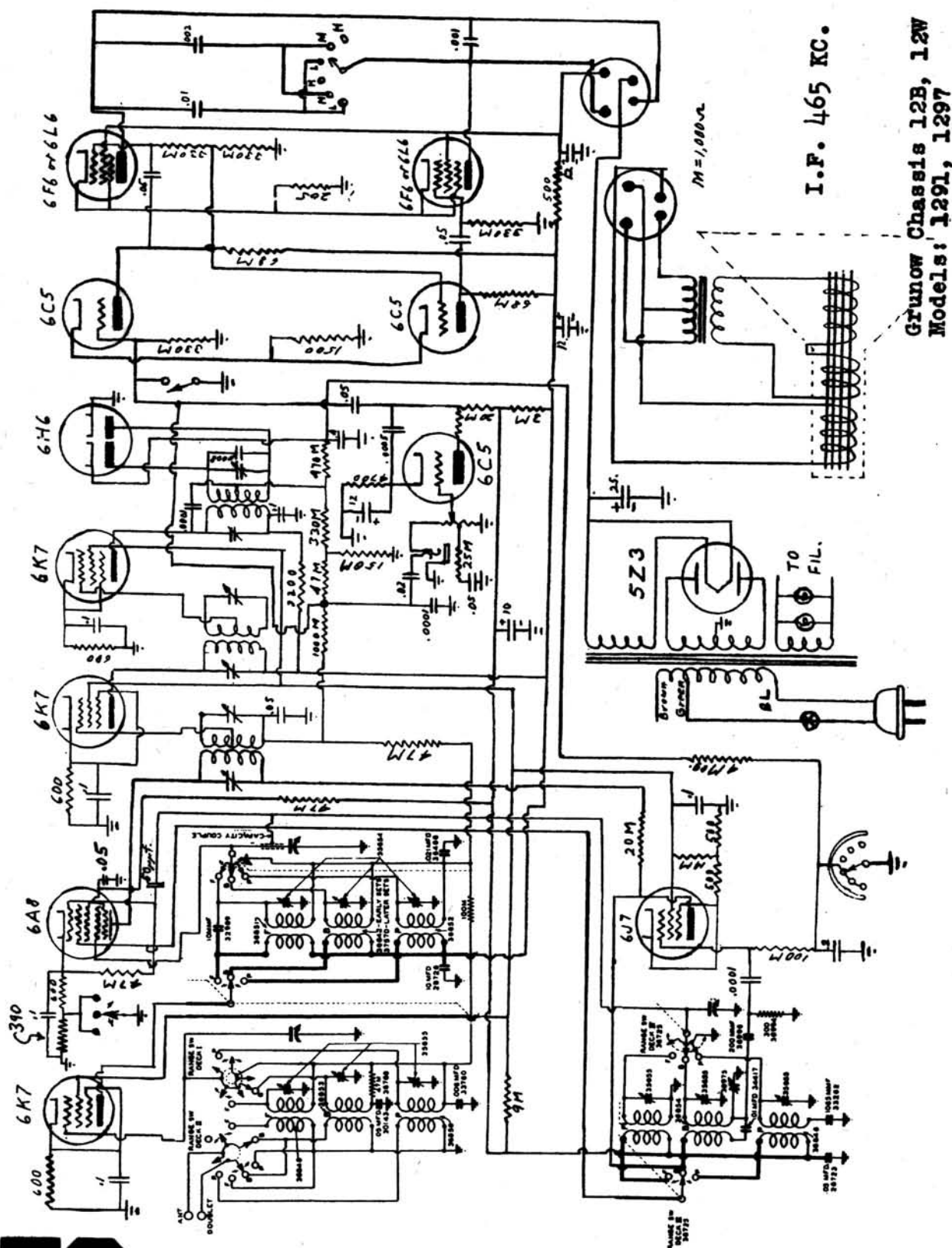


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71

Radio Receivers, Models E-101, E-105 and E-106

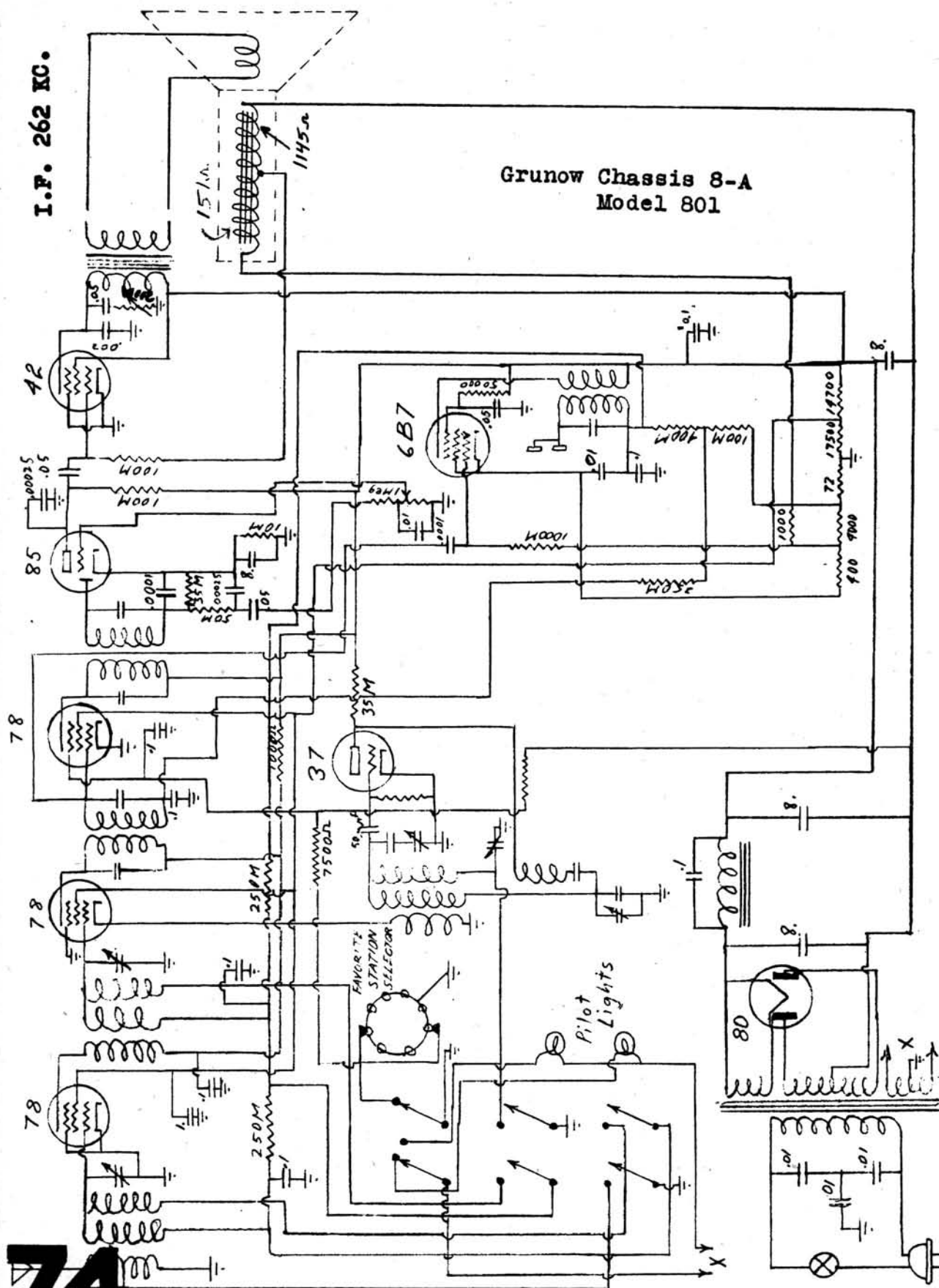
MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



I.F. 465 KC.

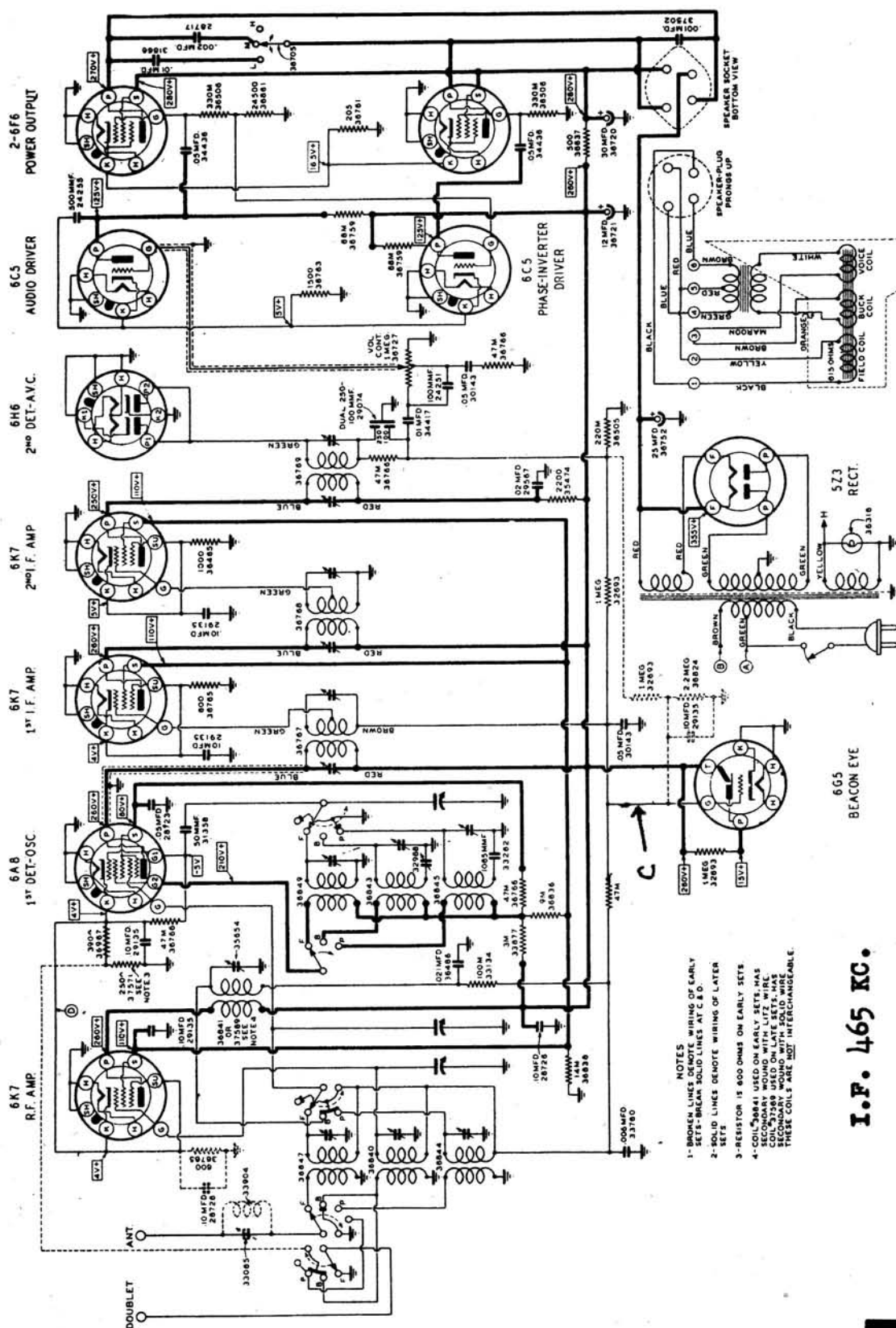
**Grunow Chassis 12B, 12W
Models: 1291, 1297**

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



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MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

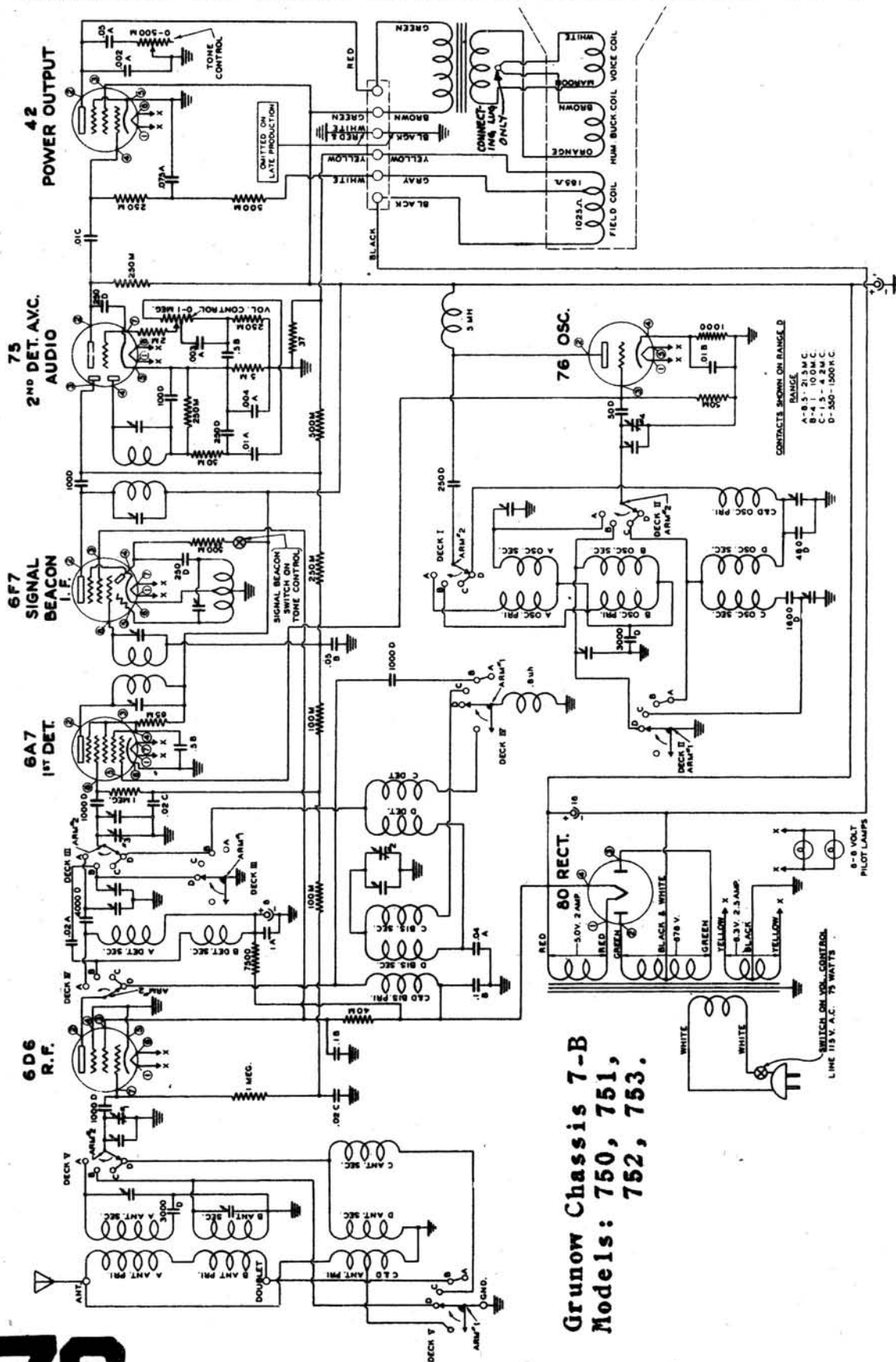


**Grunow Chassis 11-G
Models: 1191, 1191B**

I.F. 465 KC.

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MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



I.F. 262 KC.

**Grunow Chassis 7-B
Models: 750, 751,
752, 753.**

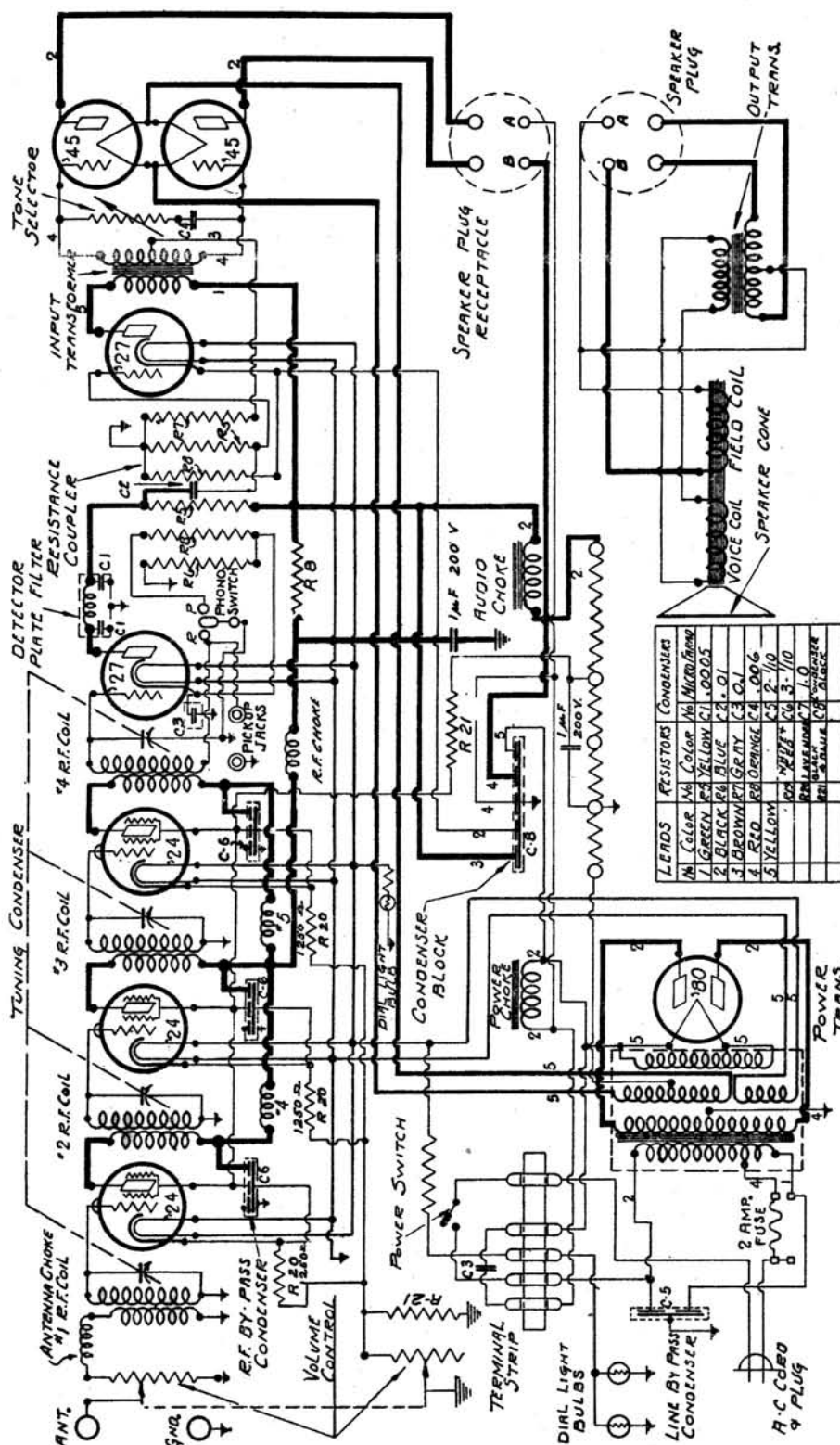
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MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

MODELS 120, 130 and 140

CHASSIS MODELS "A" and "B"

General Motors

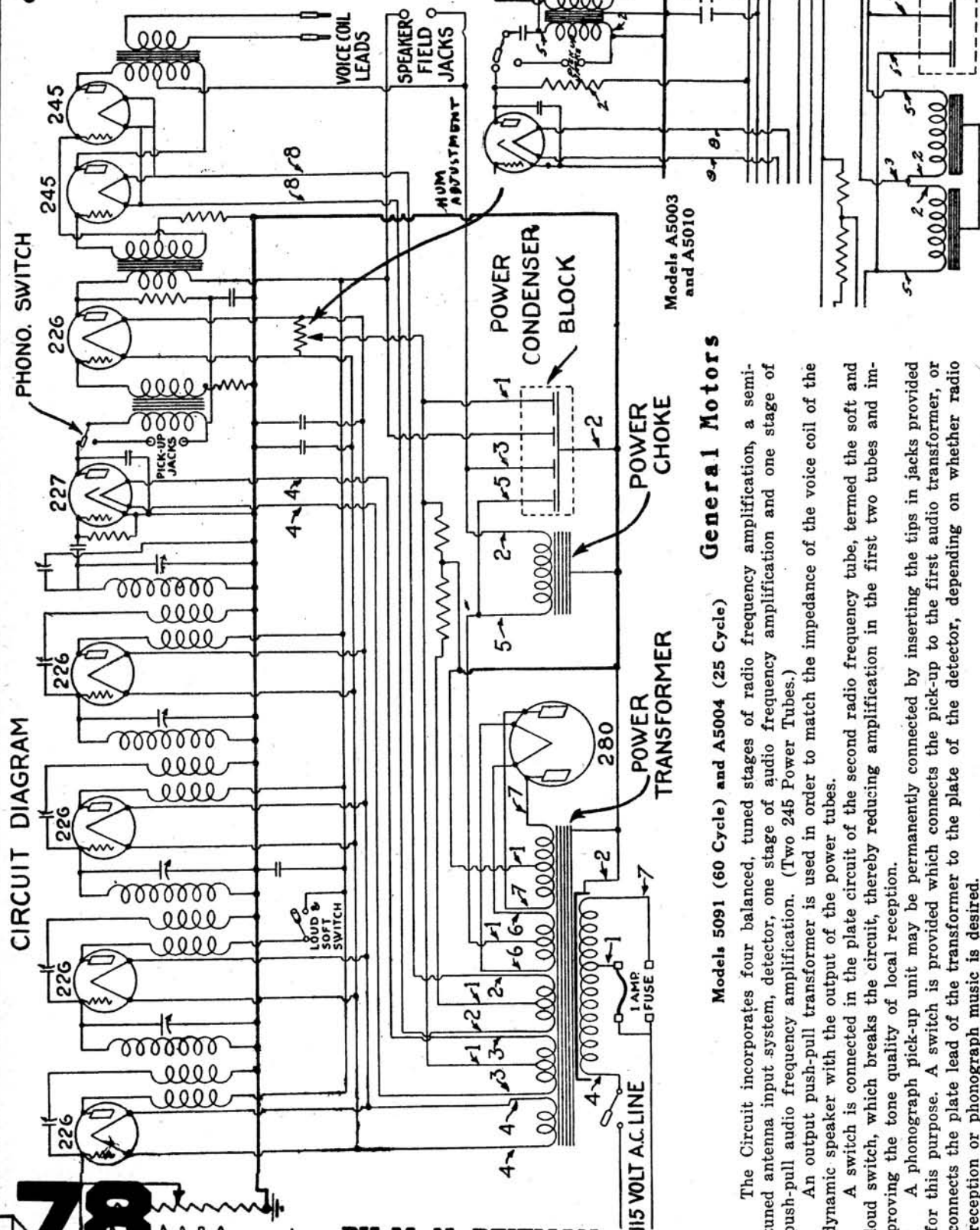


Circuit Diagram of Chassis with Serial Numbers Between 29100A and 6200A; and 1700B and 1946B.

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

COLOR CODE

- | | |
|---|--------|
| 1 | Red |
| 2 | Green |
| 3 | Blue |
| 4 | Black |
| 5 | Yellow |
| 6 | Brown |
| 7 | White |



General Motors

Models 5091 (60 Cycle) and A5004 (25 Cycle)

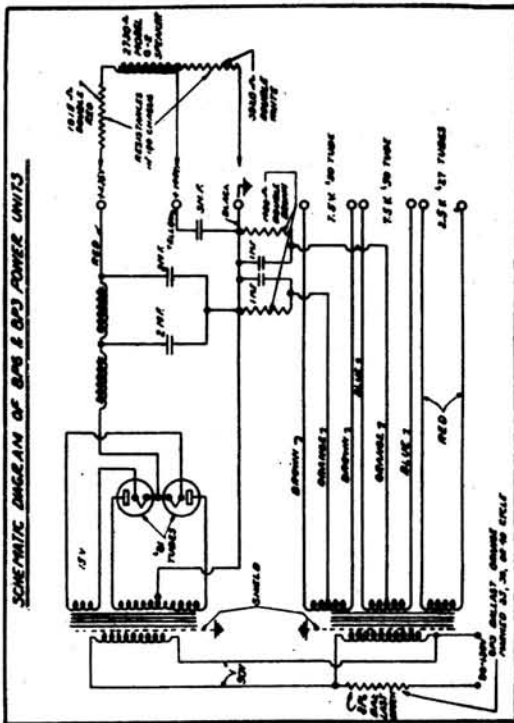
The Circuit incorporates four balanced, tuned stages of radio frequency amplification, a semi-tuned antenna input system, detector, one stage of audio frequency amplification and one stage of push-pull audio frequency amplification. (Two 245 Power Tubes.)

An output push-pull transformer is used in order to match the impedance of the voice coil of the dynamic speaker with the output of the power tubes.

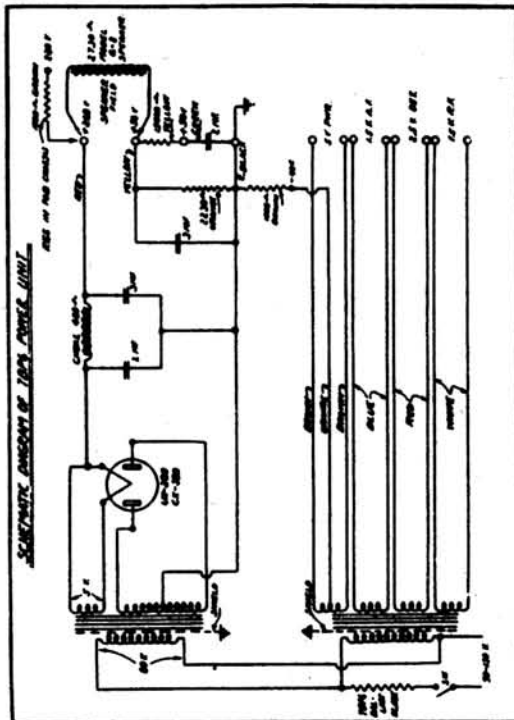
A switch is connected in the plate circuit of the second radio frequency tube, termed the soft and loud switch, which breaks the circuit, thereby reducing amplification in the first two tubes and improving the tone quality of local reception.

A phonograph pick-up unit may be permanently connected by inserting the tips in jacks provided for this purpose. A switch is provided which connects the pick-up to the first audio transformer, or connects the plate lead of the transformer to the plate of the detector, depending on whether radio reception or phonograph music is desired.

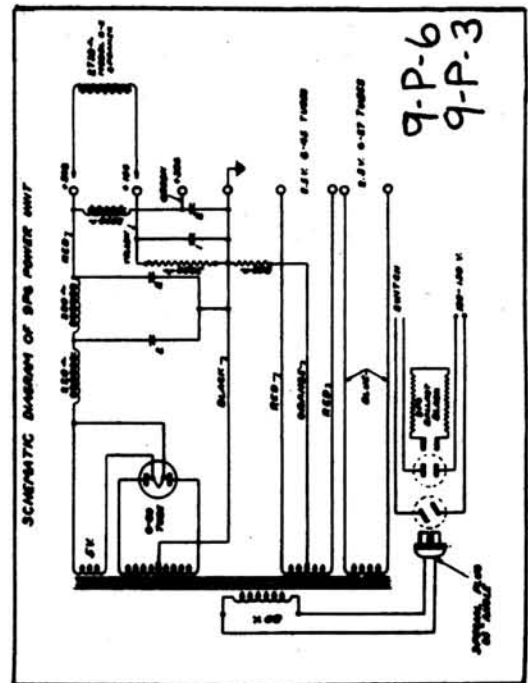
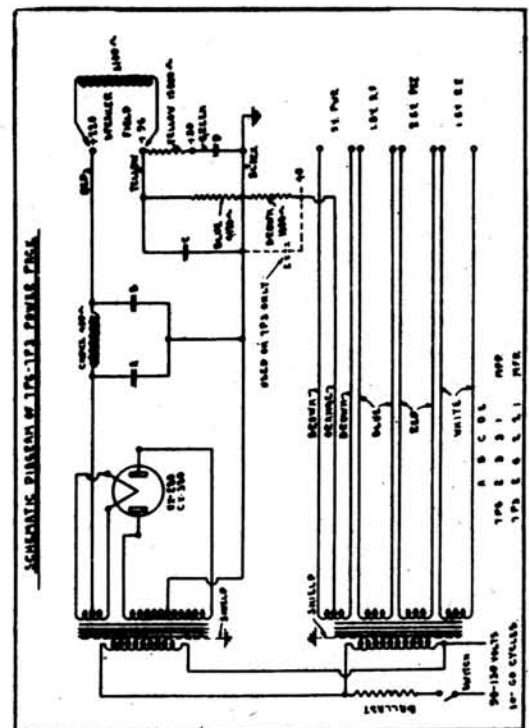
Power Pack 8-P-6 and 8-P-3 Model 181—Chassis 180



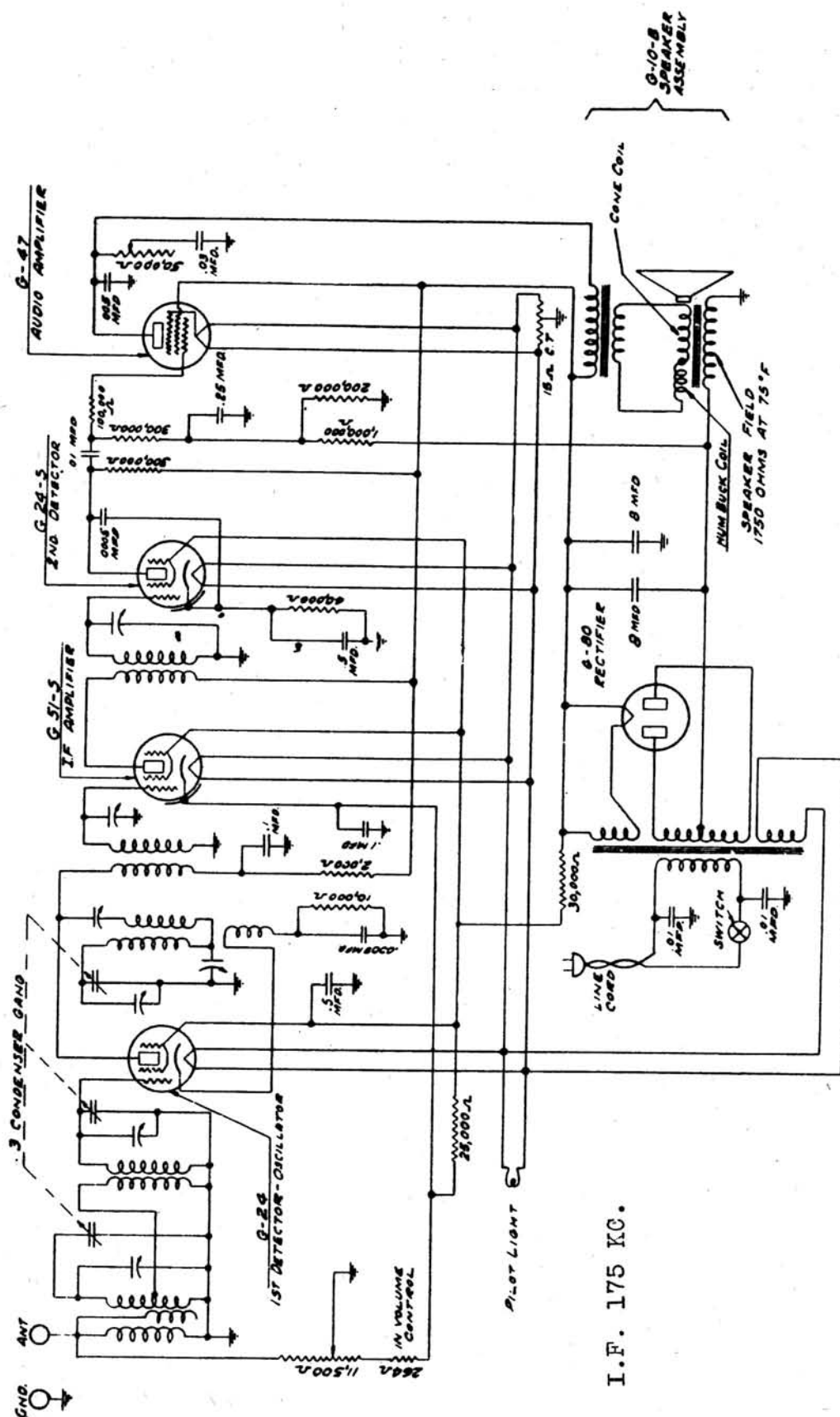
Power Pack 7-BP-6 and 7-BP-3 Models 71 and 72—Chassis 70-B



Power Pack 7-P-6 and 7-P Models 71 and 72—Chassis 70

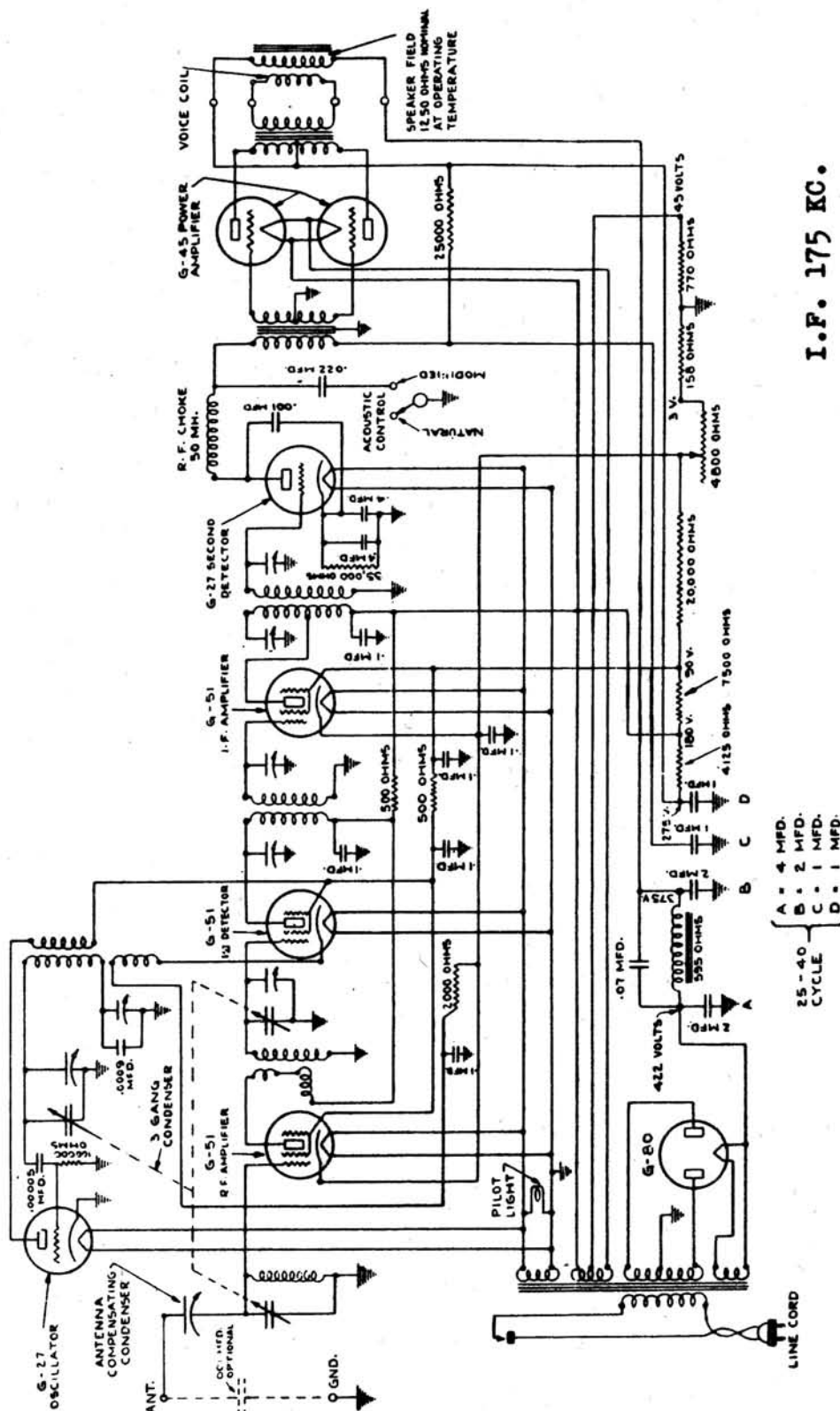


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MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

SCHEMATIC DIAGRAM OF MAJESTIC SCREEN GRID SUPERHETERODYNE RECEIVER
MODEL 20 CHASSIS 110 AND 220 VOLTS - 50-60 AND 25-40 CYCLE



D.F. 175 KC.

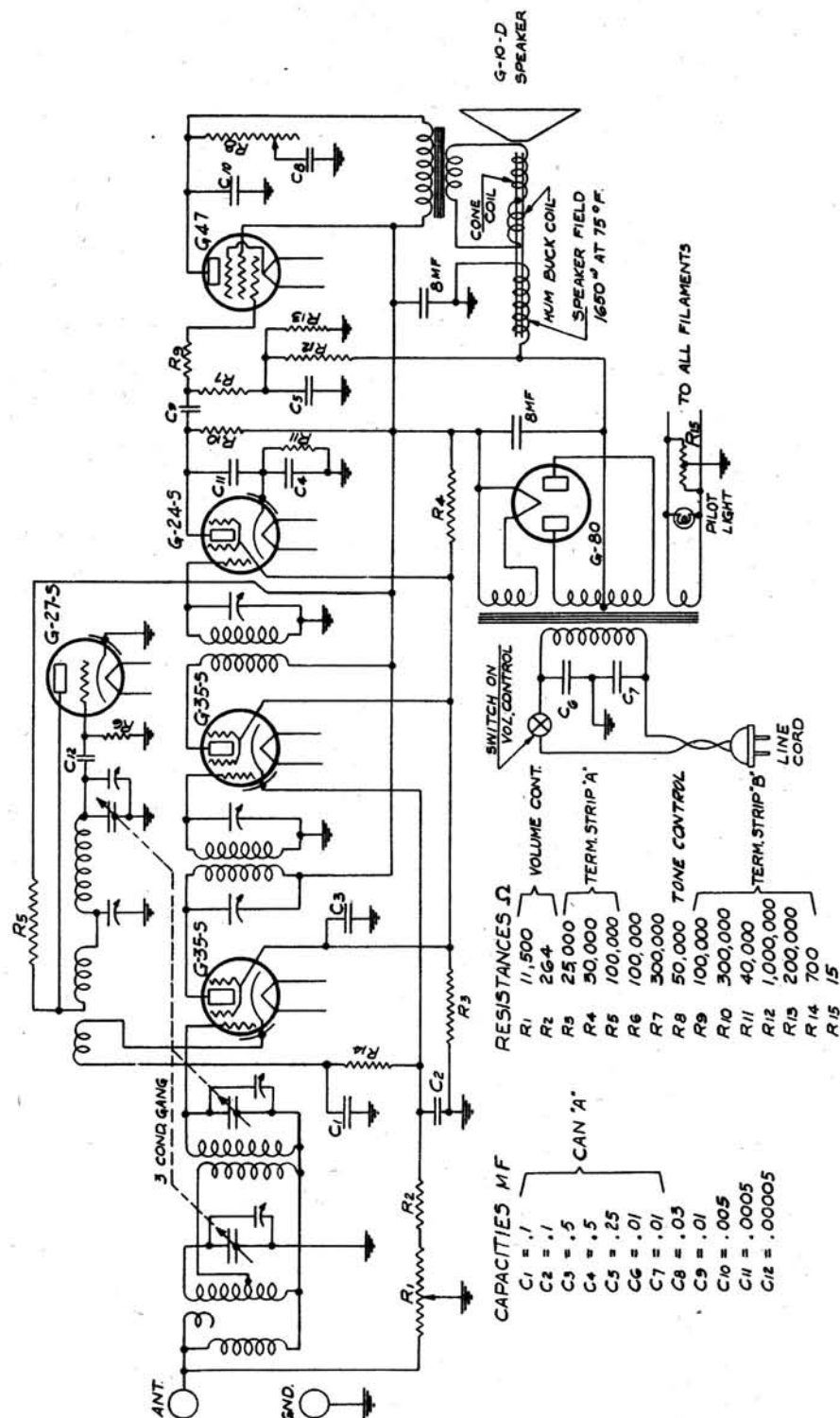
25-40
CYCLE

A =	4 MFD.
B =	2 MFD.
C =	1 MFD.
D =	1 MFD.

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

SCHEMATIC DIAGRAM OF MAJESTIC SCREEN GRID SUPERHETERODYNE RECEIVER

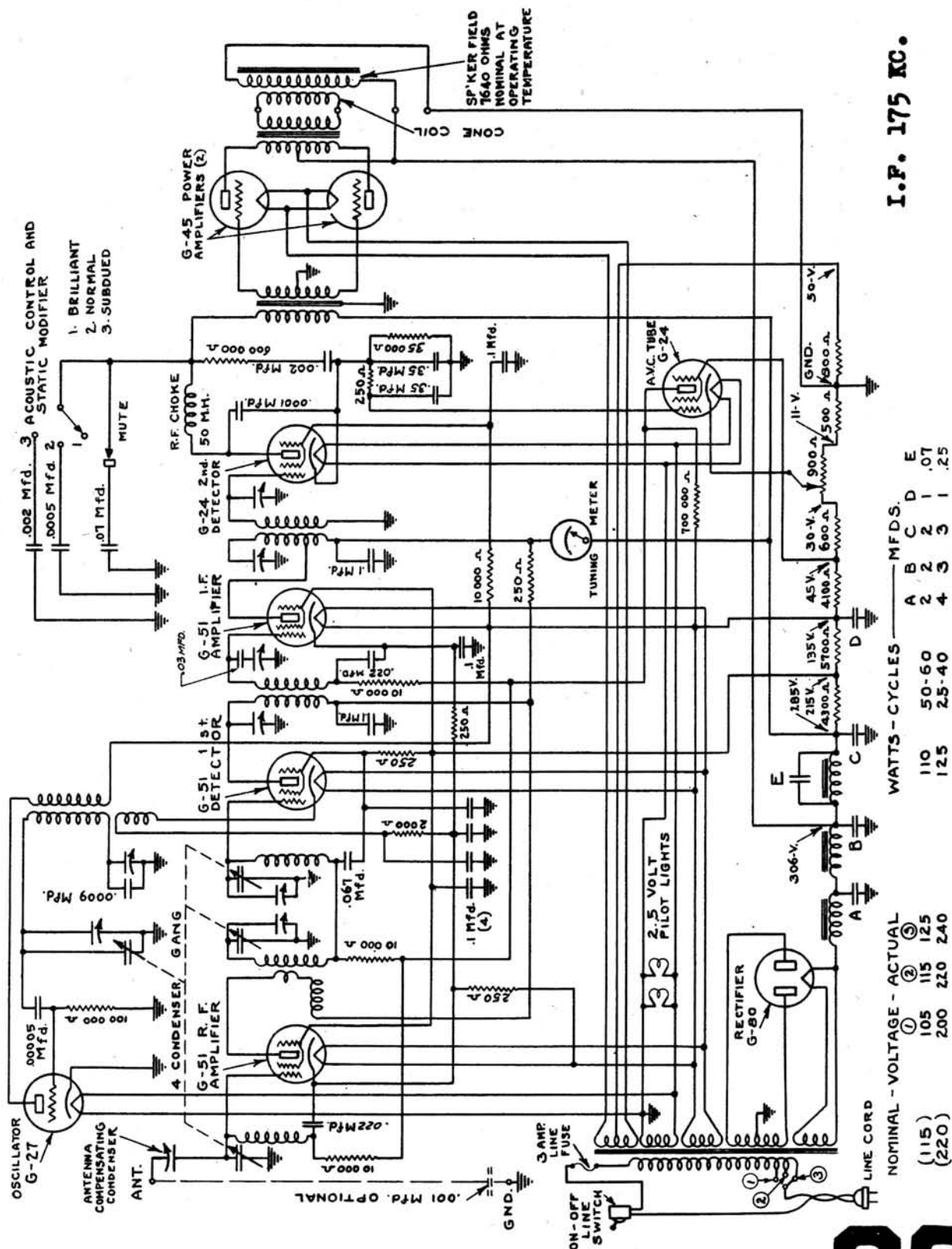
MODEL 55 CHASSIS — 115 VOLTS 50-60 CYCLES 70 WATTS



I.F. 175 KC.

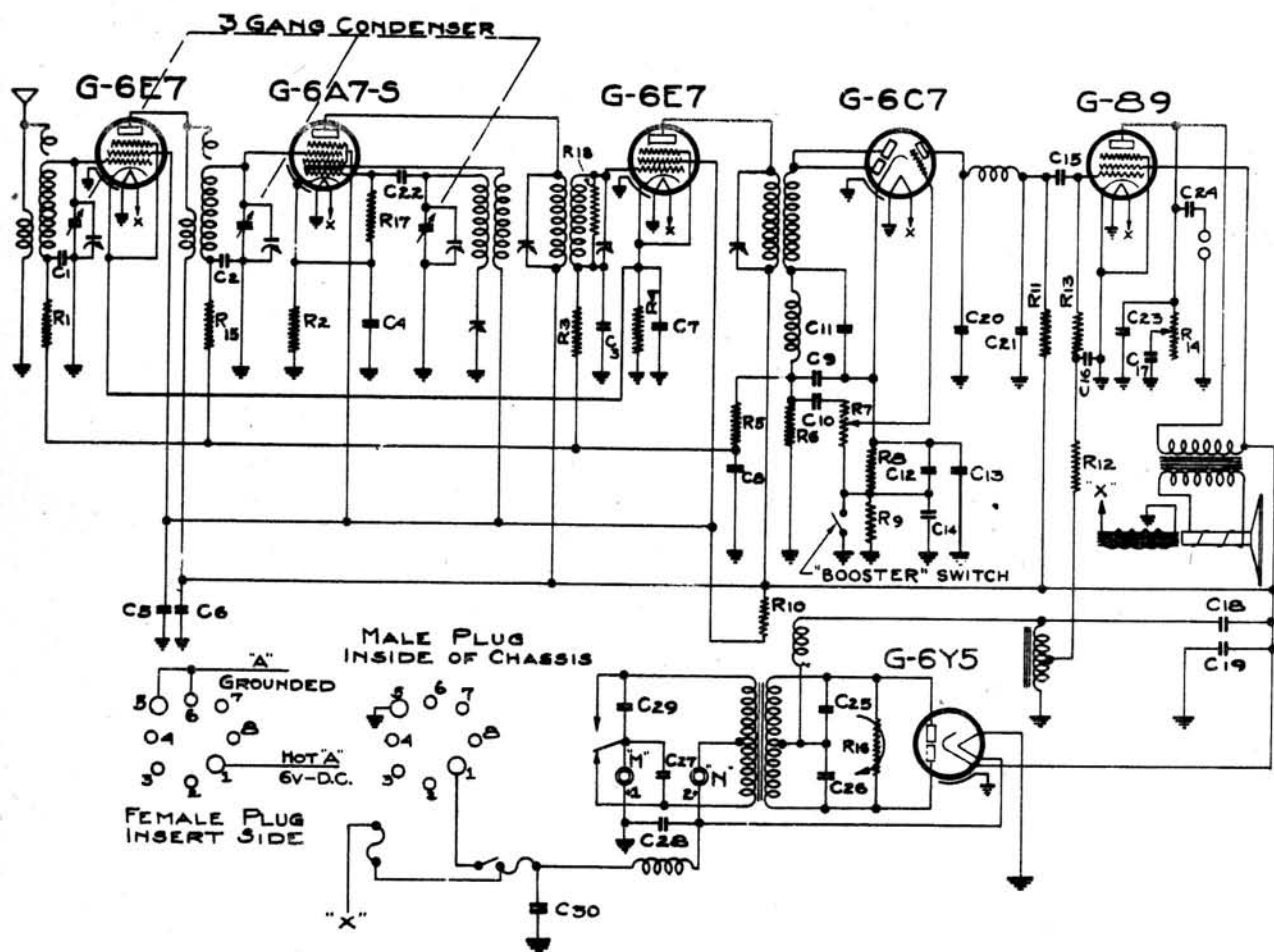
MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

SCHEMATIC DIAGRAM OF MAJESTIC SCREEN GRID SUPERHETERODYNE AUTOMATIC VOLUME CONTROL RECEIVER - MODEL 60 CHASSIS 115 AND 220 VOLTS,



MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

SCHEMATIC DIAGRAM OF MAJESTIC MODEL 66 AUTOMOBILE RECEIVER.



CONDENSERS

C1—.03	C16—.25
C2—.03	C17—.02
C3—.01	C18—.02
C4—.1	C19—.02
C5—.25	C20—.0005
C6—.25	C21—.0005
C7—.25	C22—.00025
C8—.03	C23—.005
C9—.0005	C24—.1
C10—.03	C25—.005
C11—.0005	C26—.005
C12—.10	C27—.1
C13—.25	C28—.5
C14—.25	C29—.1
C15—.03	C30—.5

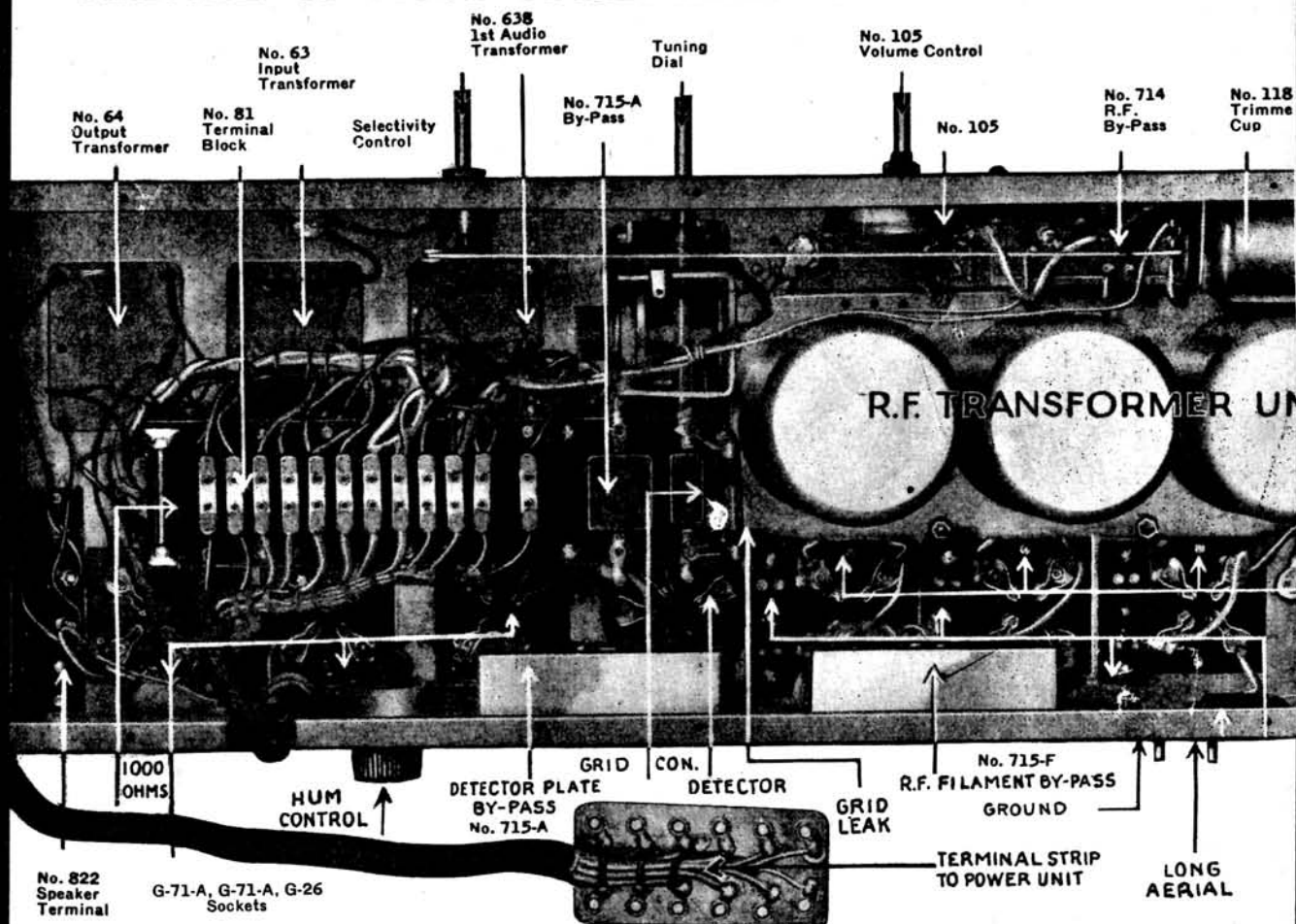
RESISTORS

R1—300,000	R10—10,000
R2—250	R11—200,000
R3—300,000	R12—250,000
R4—400	R13—250,000
R5—300,000	R14—50,000
R6—100,000	R15—300,000
R7—200,000	R16—500,000 GLUCHAR
R8—2,500	R17—50,000
R9—10,000	R18—1,000,000

NOTE

WHEN A+ IS GROUNDED VIBRATOR LEAD #1 (BLUE) SHOULD CONNECT TO TERMINAL "M" (VIBRATOR ARMATURE) AND LEAD #2 (BLACK) SHOULD CONNECT TO TRANS. PRIMARY CENTER TAP (TERMINAL "N") WHEN A- IS GROUNDED REVERSE ABOVE CONNECTIONS.

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



CHASSIS 70 and 70-B Models 71 and 72

TUBES

R. F.	G-26	1st A. F.	G-26
R. F.	G-26	P. P. Ampl.	G-71-A
R. F.	G-26	P. P. Ampl.	G-71-A
Det.	G-27	G-80 Rect.	Power Unit

THE CIRCUIT

Tuned Radio Frequency. Built upon unit assembly plan.

Chassis. Has the 3 A.F. transformers, the volume control and input circuit, sockets, balancing condensers and by-pass condensers.

Tuning Condenser. 4 gang variable condenser, dial lamp and dial.

R.F. Transformers. Entirely Contained in shield, with leads that connect to various parts.

Terminal Strip. Includes power cable, grid condenser, grid leak, detector plate R.F. by-pass condenser, 2 center tapped resistances and 2 bias resistance units.

Wiring Cable. Accomplishes the internal wiring of receiver.

INPUT SYSTEM AND VOLUME CONTROL

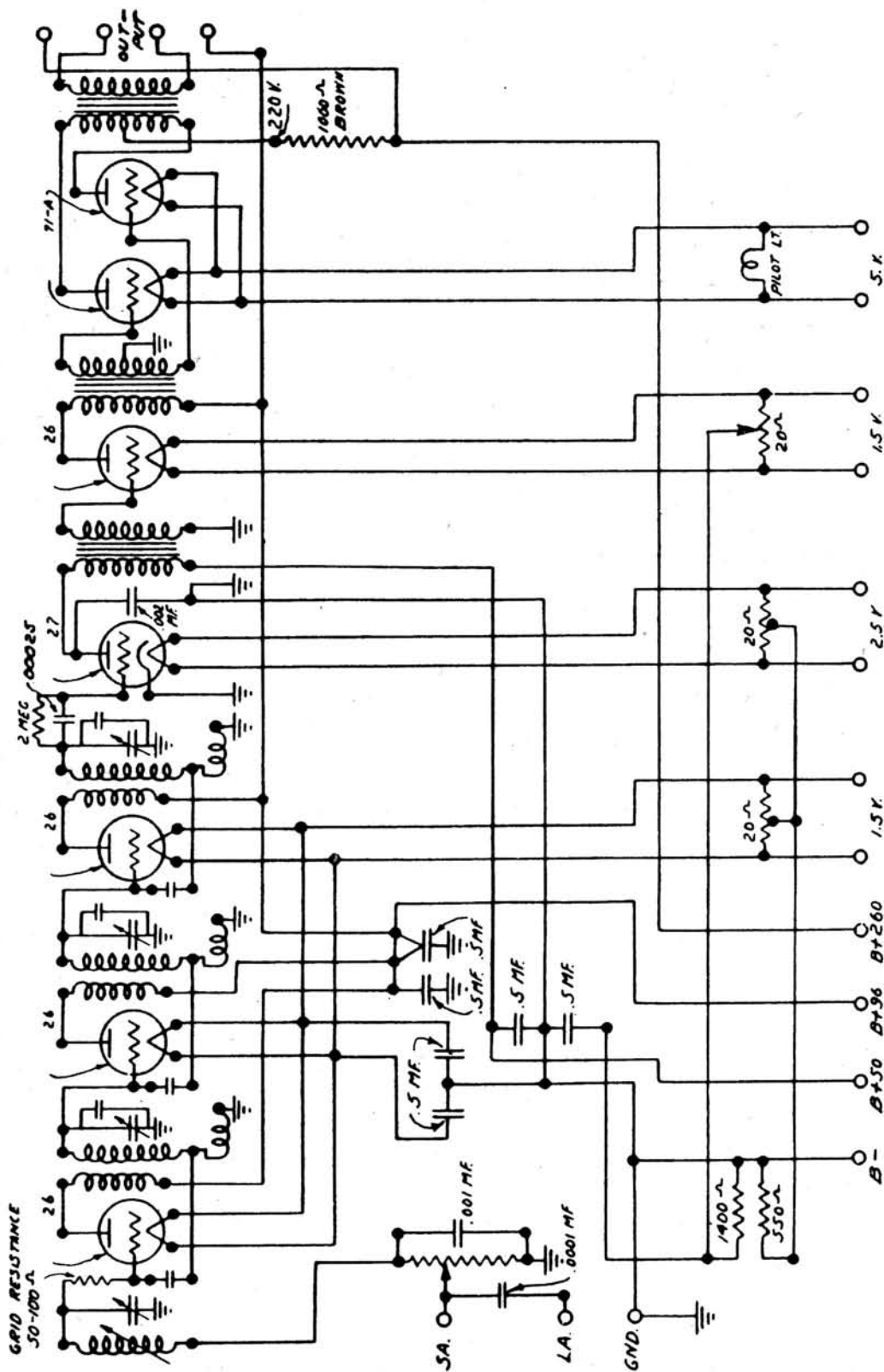
The volume control is effected in the input circuit, making a smooth control due to the fact that R.F. amplifiers are functioning at maximum efficiency at any degree of volume. A potentiometer is placed across the .001 condenser with the movable arm attached to the antenna and controls signal voltage impressed across this condenser.

SELECTIVITY CONTROL

Integral with the input system is the antenna trimmer, which operates to vary the inductance of the antenna input coil and permits adjusting the input circuit to exact resonance with the other 3 tuned circuits.

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

SCHEMATIC DIAGRAM FOR MODEL 70B MAJESTIC RECEIVER



CHASSIS 90

Models 91, 92

METHOD OF BIASING

Grid Biasing of the various tubes is accomplished by grounding the grids and applying a positive potential to the cathodes of three tubes.

The biasing of the first, second and third R.F. Tubes is accomplished by the use of a variable resistance from 500 to 2,500 Ohm, which is in series with the volume control resistor and is known as the Equalizer. It is mounted on the rotor shaft of the variable gang condenser and the movable arm turns as the rotor plates are moved. A potentiometer of from 8 to 15 Volt is applied, depending on the tuning dial frequency. The Equalizer is adjusted for a resistance of 1,500 Ohm at 1,000 kilocycles, 500 Ohm at 550 kilocycles, 2,500 Ohm at 1,500 kilocycles, with 15% allowable variation for the last two measurements. The equalizer adjustment arm is secured by a set screw to the back of the gang condenser frame.

The position and tightness of this arm is important. Make sure that the set screw holding the Equalizer Shaft to the gang condenser just inside the gang frame is against the flat portion of the equalizer shaft.

BIASING	RESISTOR	BIAS VOLTAGE
4th R. F. Stage	1,800 Ohm	9
Detector	35,000 Ohm	32
45	800 Ohm	

On Power Unit Terminal Strip

ALIGNING AND BALANCING

Make certain that resonance is obtained for each stage, using both Master Tuning Control and Trimmer. When using dummy tube for balancing, place shield over it, to include capacity effect of shield. A dummy tube having a Grid to Plate of appr. 3.4 m.m.f. is suggested, as this capacity is used when receiver was originally balanced. **PROCEDURE OF BALANCING IS THE SAME AS FOR CHASSIS 70, 70B**

ANTENNA SWITCH

To prevent distortion of tone from close-by powerful transmitters on moderately long antenna, snap switch to "Local" position. Use "Distance" position for stations with less powerful reception.

The Power Unit 9-P-6 and 9-P-3 is described on Page 79.

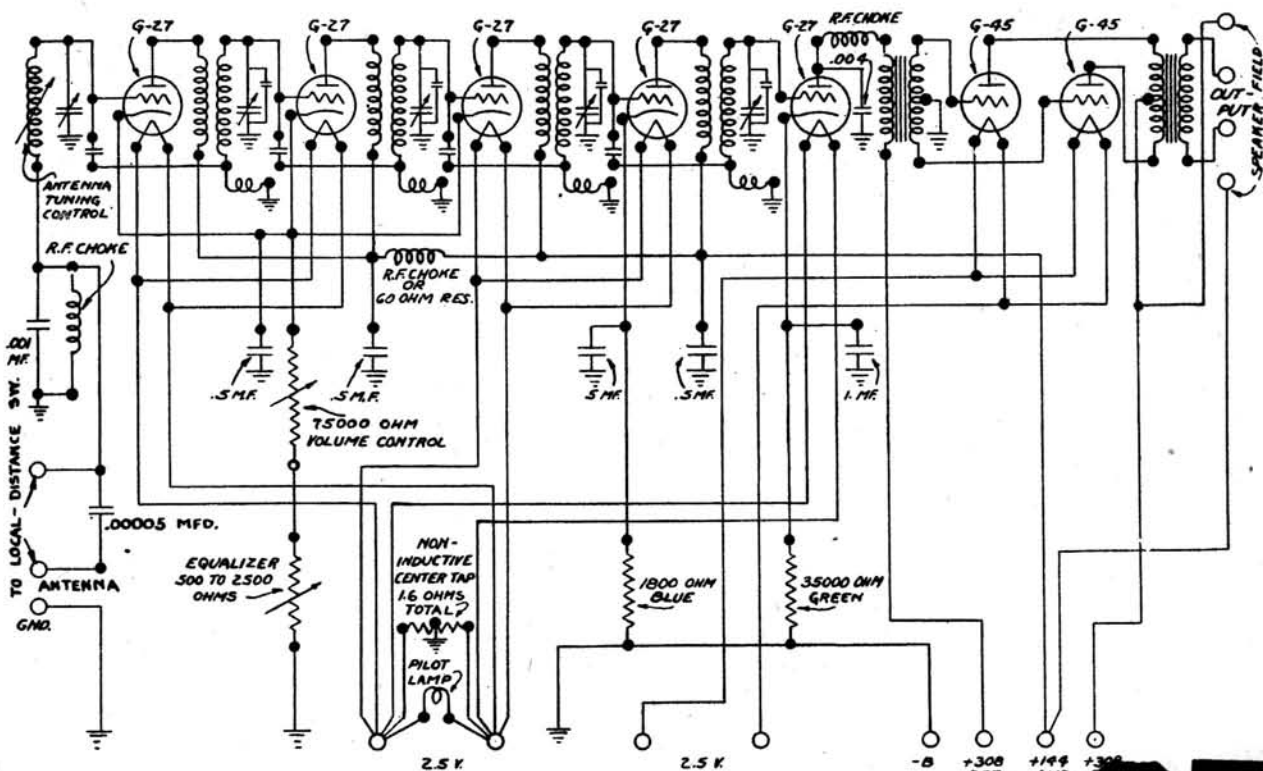
INPUT CIRCUIT

On early production models, a fixed condenser of .0001 MFD. capacity is used, on later production a condenser of .00005 MFD. for the input circuit.

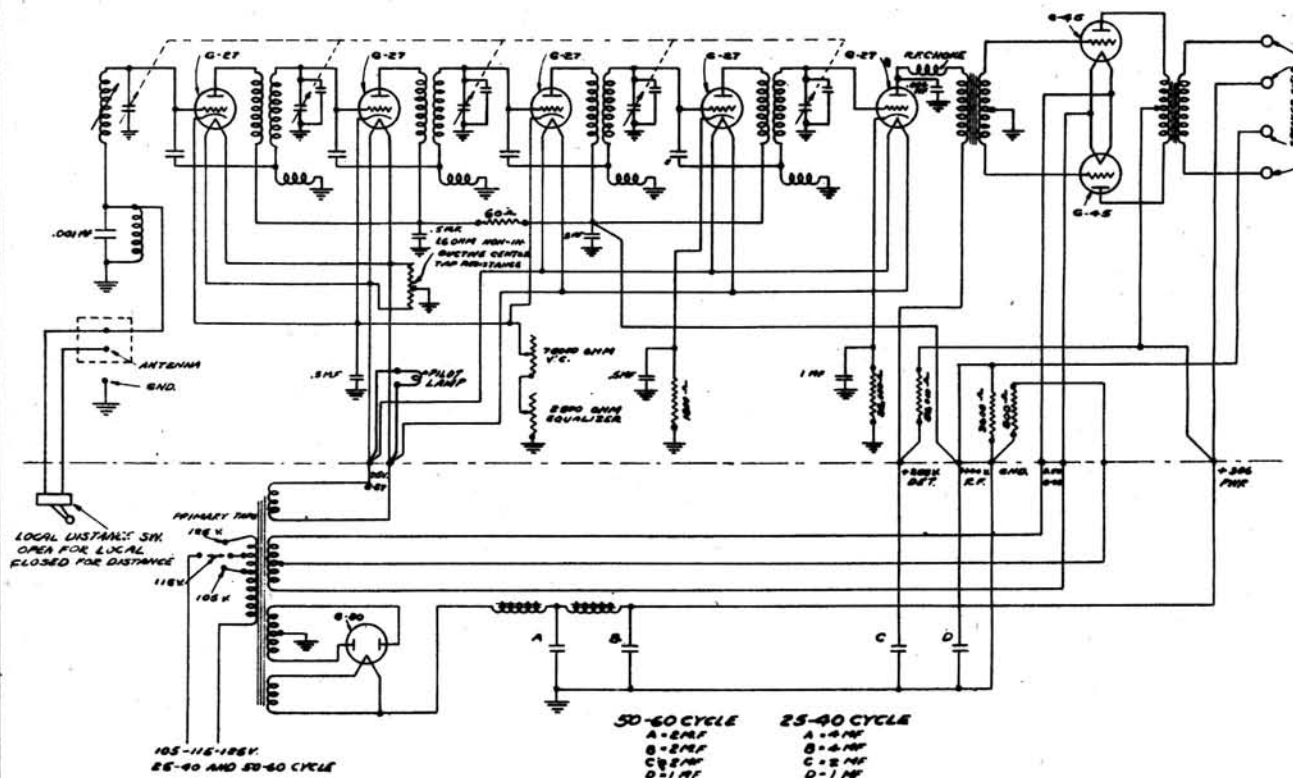
TABLE OF VOLTAGES

The voltage readings given below were taken with the receiver turned to 550 Kilocycles, and the volume control set at maximum. When taking comparative readings, be certain that receiver is tuned to 550 kilocycles and volume control is set at maximum.

Purpose	Tube	Type	A Volts	B Volts	C Volts	Cathode Volts	Normal Plate M.A.
1st R. F.	27		2.35	130	8	8	5.5
2nd R. F.	27		2.35	130	8	8	5.5
3rd R. F.	27		2.35	130	8	8	5.5
4th R. F.	27		2.35	130	9	9	5.0
Detector	27		2.35	270	30	30	1
Power	45		2.45	250	50	50	32
Rectifier	80		2.45	250	50	50	32
Line Voltage	115	A. C.	...	...	...	...	...



Models 90, 91, 93



The voltage readings given below were taken with the receiver turned to 550 kilocycles, and the volume control set at maximum. When taking comparative readings, be certain that receiver is tuned to 550 kilocycles and volume control is set at maximum.

To prevent distortion of tone from close-by powerful transmitters on moderately long antenna, snap switch to "Local" position. Use "Distance" position for stations with less powerful reception.

On the left side, directly in front of the G-80 Socket, you will note a small plate. Determine with A. C. Voltmeter or from local power company the average line voltage.

Upon removing the adjustment plate, you will find three taps, marked 105 Volts, 115 Volts and 125 Volts.

Tube		Filament Voltage	Plate Voltage	Grid Bias Voltage	Cathode Volts	Normal Plate Milli-amperes
Purpose	Type					
1st R. F.	G-27	2.35	130	8	8	5.5
2nd R. F.	G-27	2.35	130	8	8	5.5
3rd R. F.	G-27	2.35	130	8	8	5.5
4th R. F.	G-27	2.35	130	9	9	5.0
Detector	G-27	2.35	230	25	25	.8
Power	G-45	2.45	250	50	..	32
Power	G-45	2.45	250	50	..	32
Rectifying	G-80	...	...	..	..	..

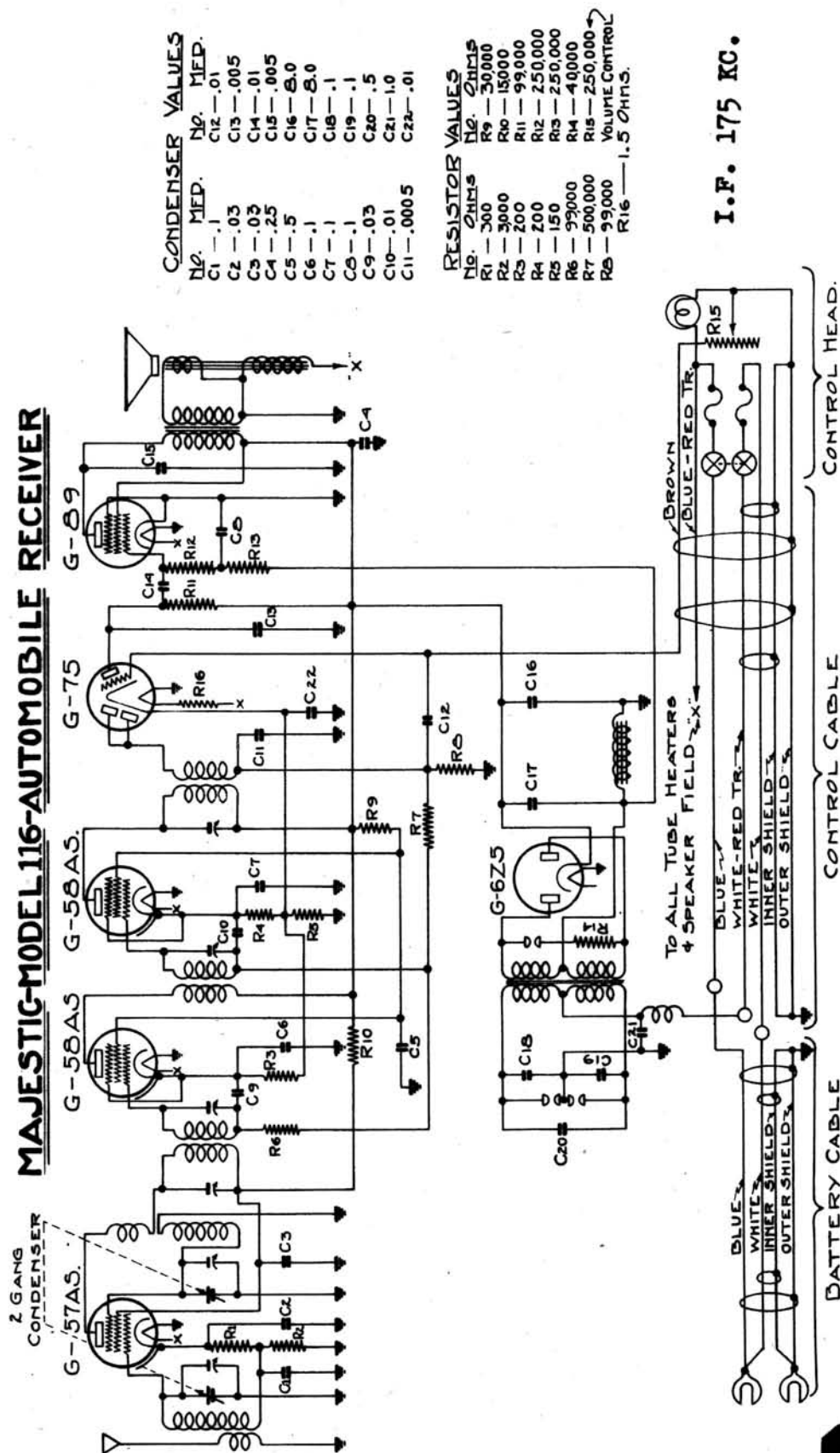
Line Voltage 115 A. C. on 115 volt tap.

The T.R.F. balanced circuit is employed with a single control, five gang condenser. The detector output is fed directly to the push-pull audio stage. The selectivity control or trimmer functions by varying the inductance of the antenna input coil and permits adjustment in the input circuit to exact resonance with the other tuned circuits.

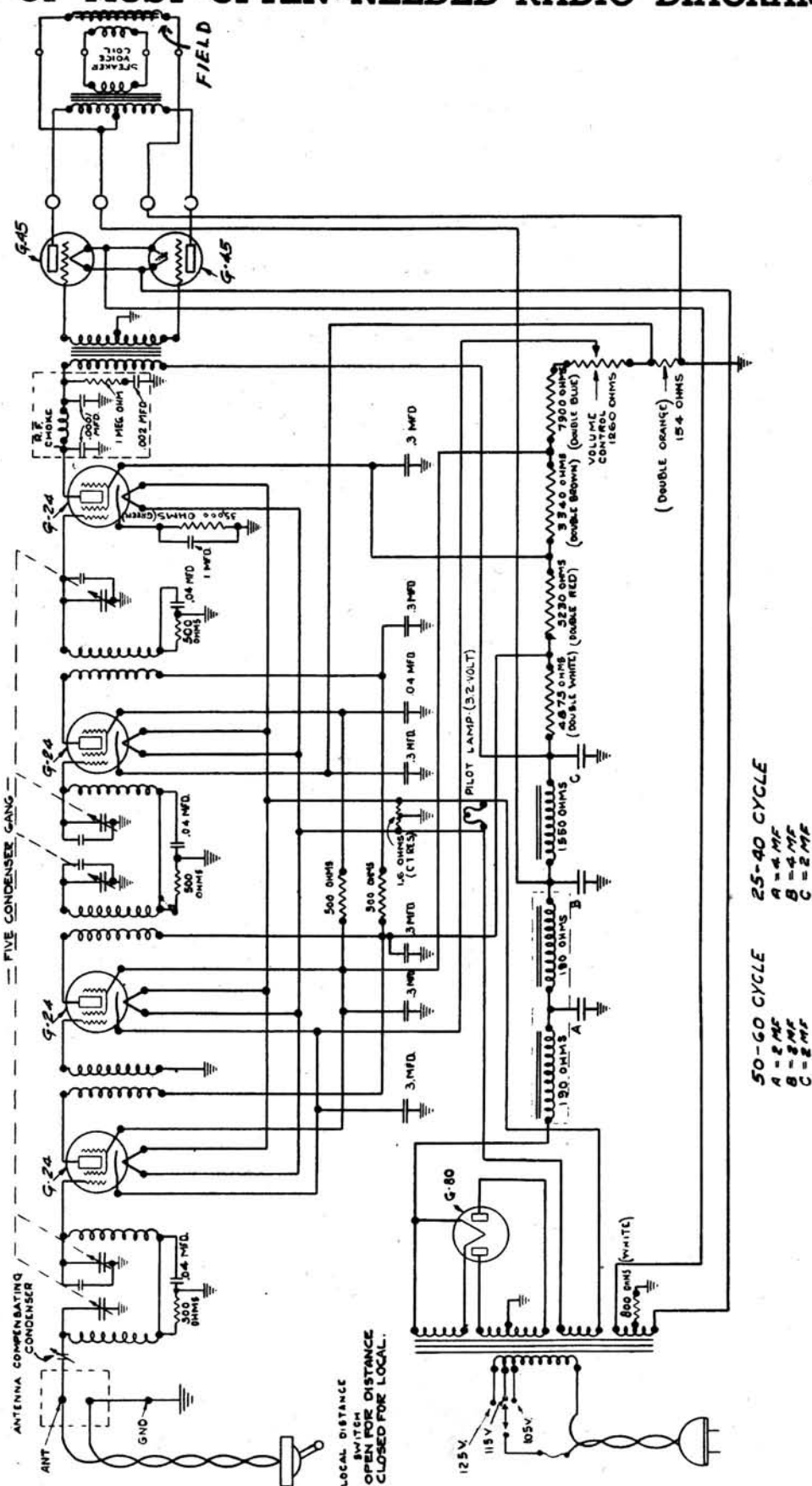
The R. F. Unit assembly (No. 1434) includes the radio frequency transformer, with shields, the R. F. Sockets, the balancing condensers and the radio frequency, cathode and plate By-Pass Condensers. The terminal strip includes one 800 Ohm, one 1,800 Ohm and one 50,000 Ohm Resistor, being the bias resistors of the Power Tubes, the 4th R.F. Tube and the Detector Plate resistance respectively.

Composed of Power Transformer, a Choke Unit and Condenser Bank for the filter system. The resistors (800 and 3,600 Ohm) are placed on terminal strip. A Type G-80 Rectifying tube is used.

MAJESTIC-MODEL 116-AUTOMOBILE RECEIVER

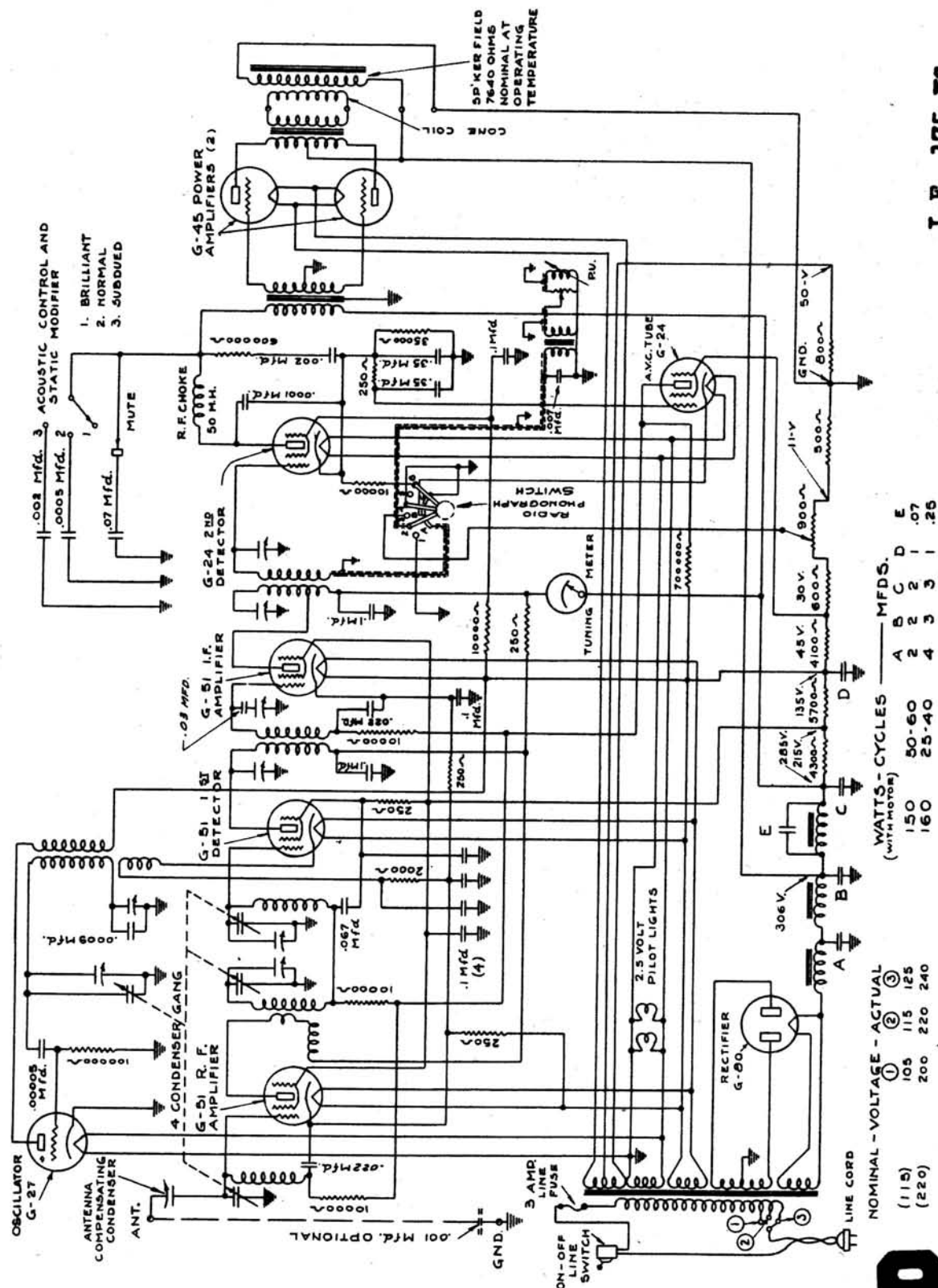


MODEL 130-A CHASSIS 25-40 \$ 50-60 CYCLE



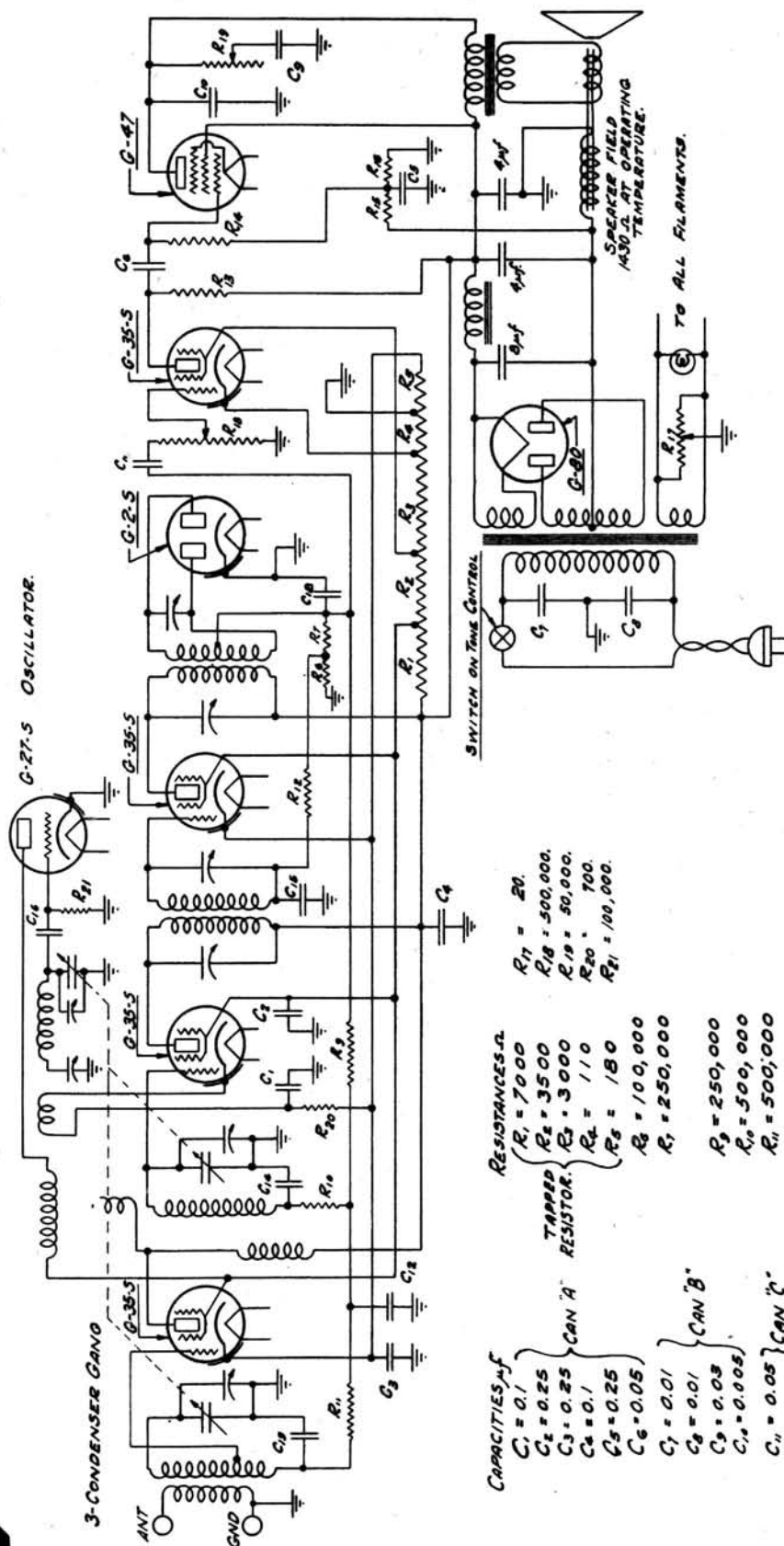
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SCHEMATIC DIAGRAM OF MAJESTIC SCREEN GRID SUPERHETERODYNE AUTOMATIC.
VOLUME CONTROL RECEIVER AND ELECTRIC PHONOGRAPH COMBINATION
MODEL 160 CHASSIS 115 AND 220 VOLTS, 25 - 40 AND 50-60 CYCLES.



I.F. 175 KC.

SCHEMATIC DIAGRAM OF MAJESTIC SCREEN GRID SUPERHETERODYNE
AUTOMATIC VOLUME CONTROL RECEIVER - MODEL 200 CHASSIS.



I.F. 175 KC.

115 VOLTS - 60 CYCLES - 85 WATTS.

RESISTANCES-Ω

$R_1 = 20$
 $R_2 = 500,000$
 $R_3 = 50,000$
 $R_4 = 100$
 $R_5 = 100,000$

TAPPED
RESISTOR.

$R_6 = 7000$
 $R_7 = 3500$
 $R_8 = 3000$
 $R_9 = 110$
 $R_{10} = 180$
 $R_{11} = 100,000$
 $R_{12} = 250,000$
 $R_{13} = 250,000$
 $R_{14} = 500,000$
 $R_{15} = 500,000$
 $R_{16} = 100,000$
 $R_{17} = 300,000$
 $R_{18} = 1,000,000$
 $R_{19} = 200,000$

CAPACITIES-μF

$C_1 = 0.1$
 $C_2 = 0.25$
 $C_3 = 0.25$
 $C_4 = 0.1$
 $C_5 = 0.25$
 $C_6 = 0.05$
 $C_7 = 0.01$
 $C_8 = 0.01$
 $C_9 = 0.03$
 $C_{10} = 0.005$
 $C_{11} = 0.05$
 $C_{12} = 0.01$
 $C_{13} = 0.01$
 $C_{14} = 0.01$
 $C_{15} = 0.01$
 $C_{16} = 0.00005$
 $C_{17} = 0.0008$

CAN "A"

CAN "B"

CAN "C"

CAN "D"

CAN "E"

CAN "F"

CAN "G"

CAN "H"

CAN "I"

CAN "J"

CAN "K"

CAN "L"

CAN "M"

CAN "N"

CAN "O"

CAN "P"

CAN "Q"

CAN "R"

CAN "S"

CAN "T"

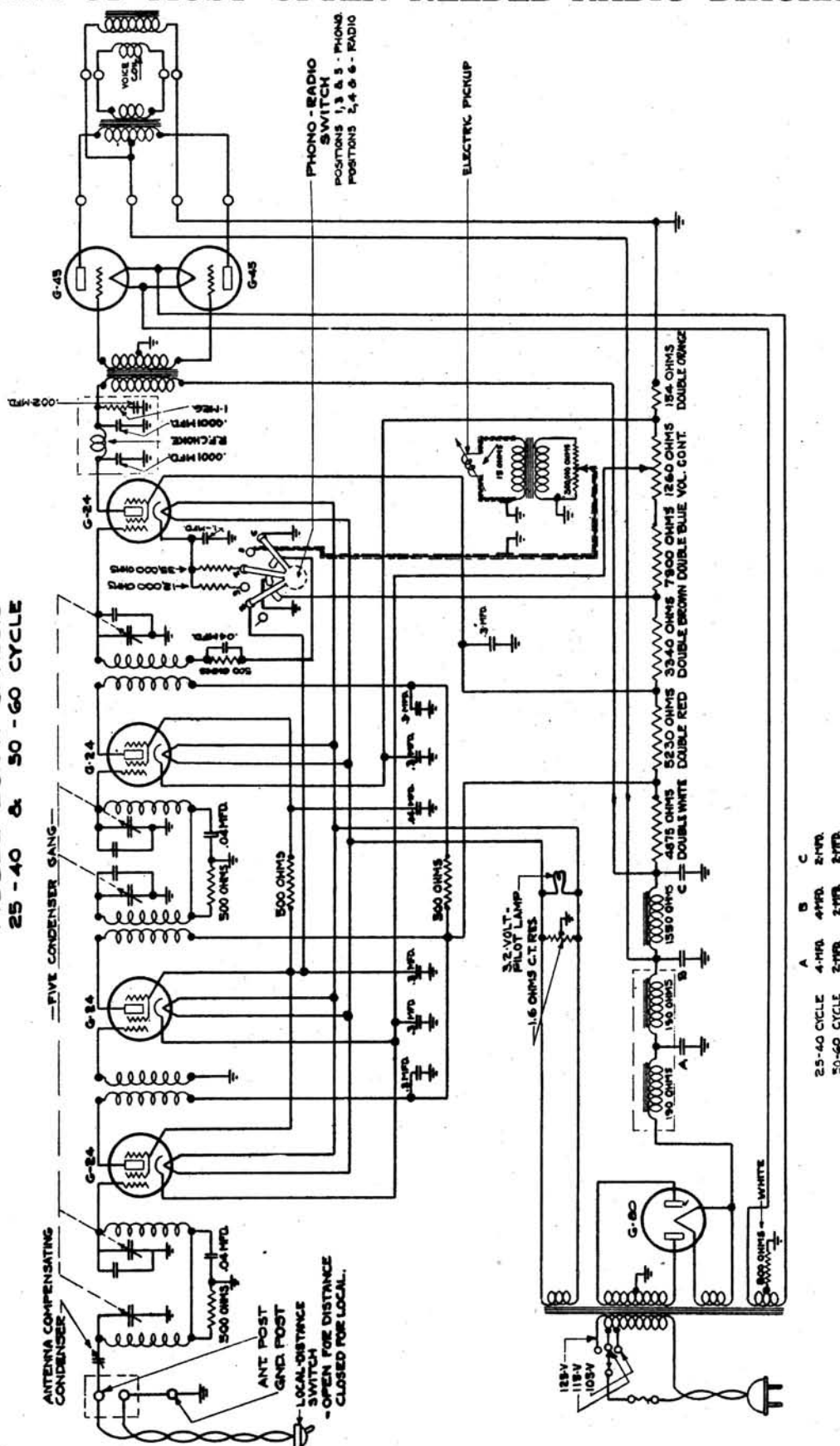
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A & B - PHONO-RADIO SWITCH
C - FILTER COND. CAN
D - E.F. BY-PASS CAN
E - A.F. BY-PASS CAN
F - RESISTOR STRIP

DIAGRAM of MAJESTIC SUPER SCREEN GRID RECEIVER
MODEL 230-A CHASSIS
25-40 & 50-60 CYCLE

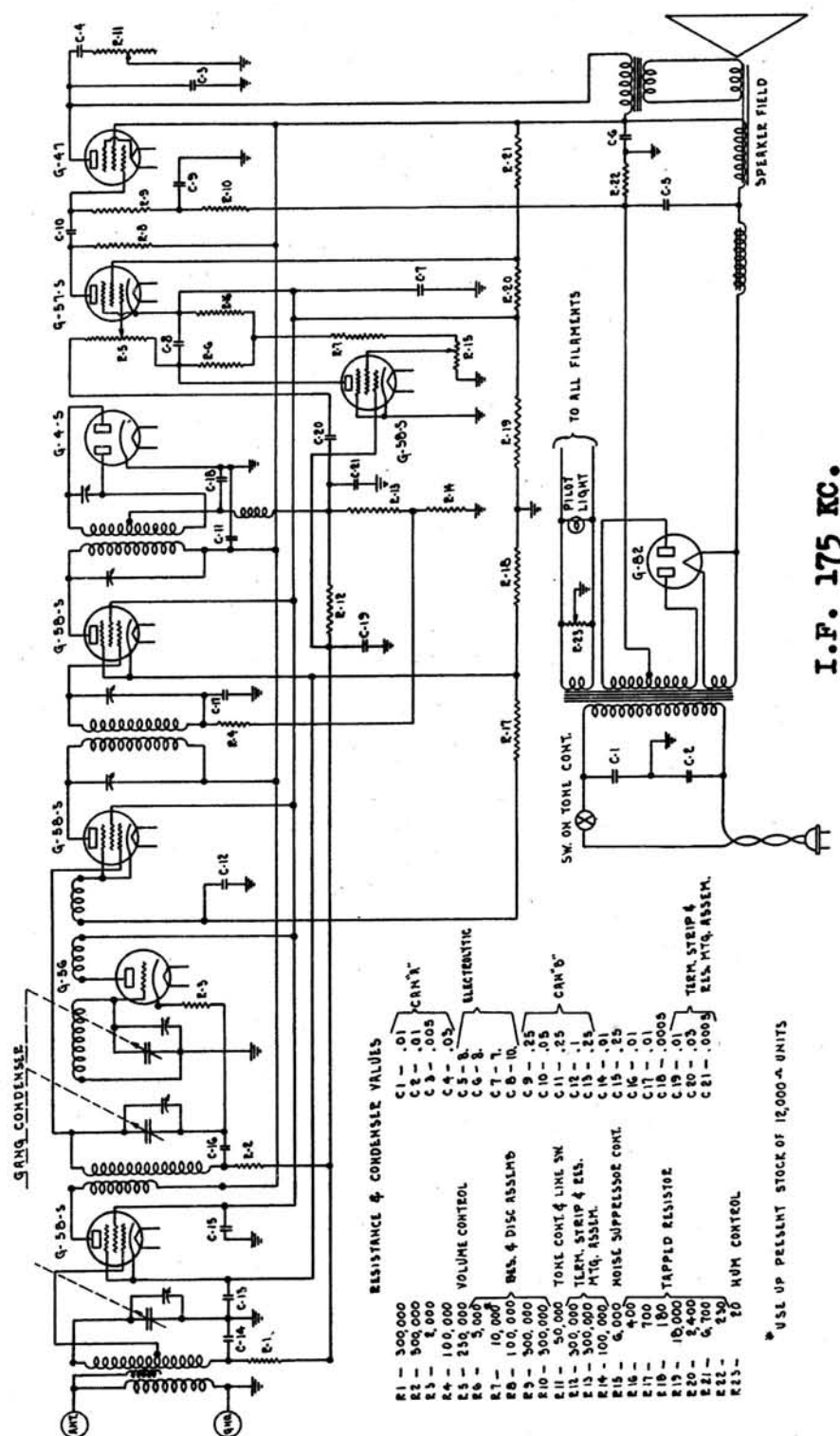


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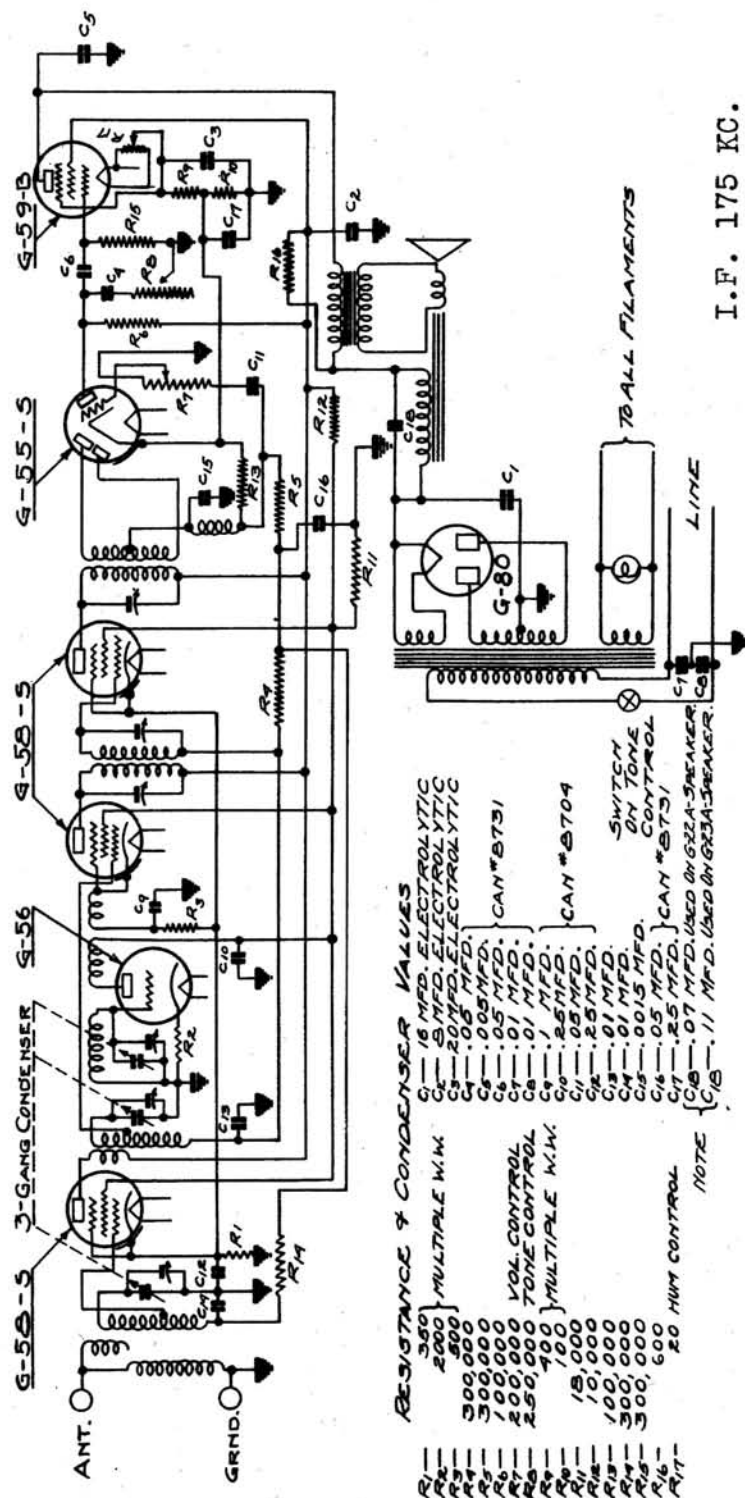
MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

DIAGRAM OF MAJESTIC SCREEN GRID SUPERHETERODYNE
AUTOMATIC VOLUME CONTROL RECEIVER MODEL 290-115 VOLTS 50-60 CYCLE



I.F. 175 KC.

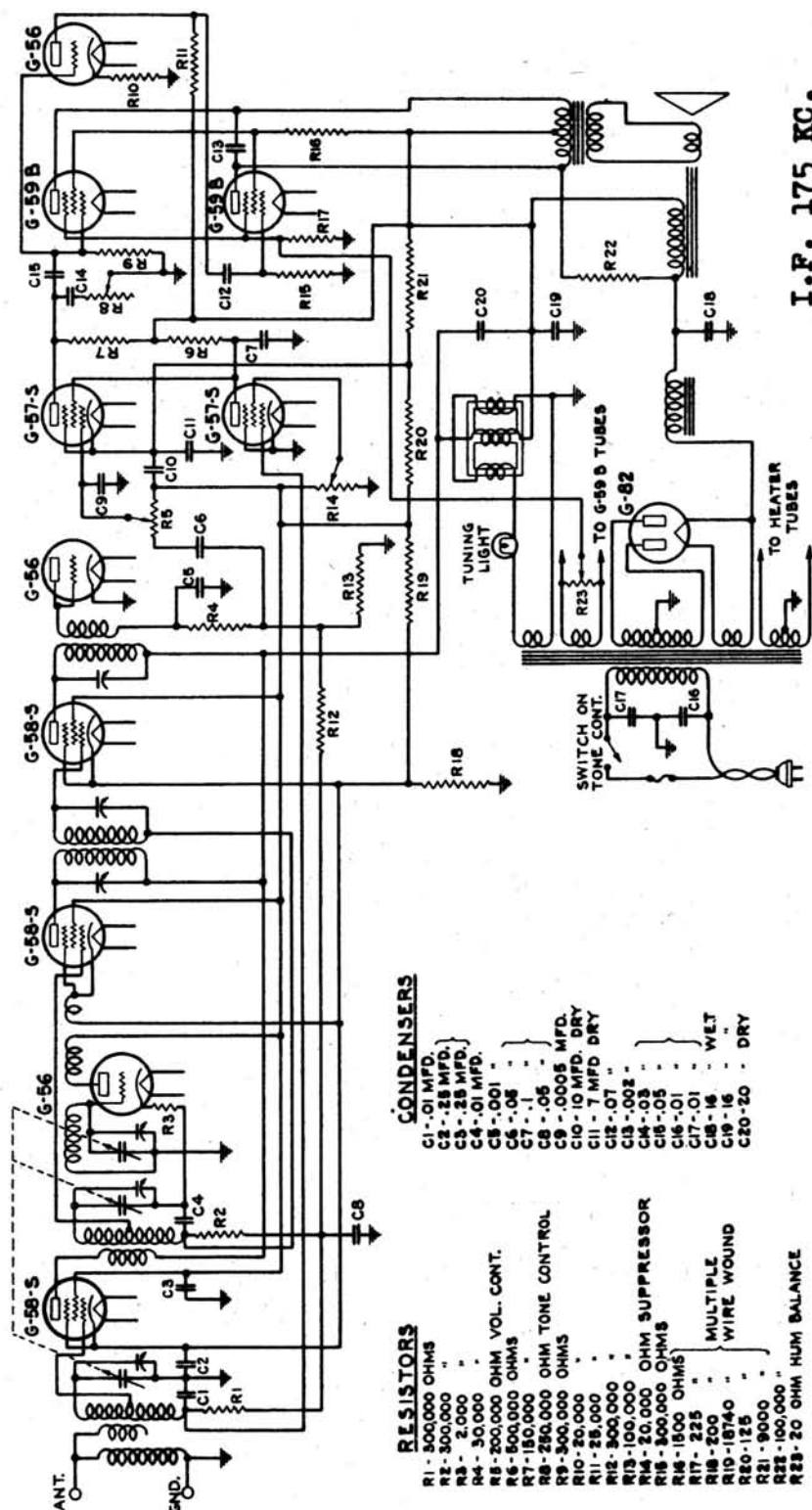
DIAGRAM OF MAJESTIC AUTOMATIC VOLUME CONTROL SUPERHETERODYNE MODEL 330



Automatic volume control bias voltage is developed across resistors R-13 and R-10 and is applied to the grid of the radio frequency, first detector and intermediate frequency tubes to control their amplification.

The manual volume control is a 200,000 ohm potentiometer which is connected in the grid circuit of the G-55-S tube and works entirely independent of the automatic volume control.

MAJESTIC MODEL 360 RECEIVER



I.F. 175 KC.

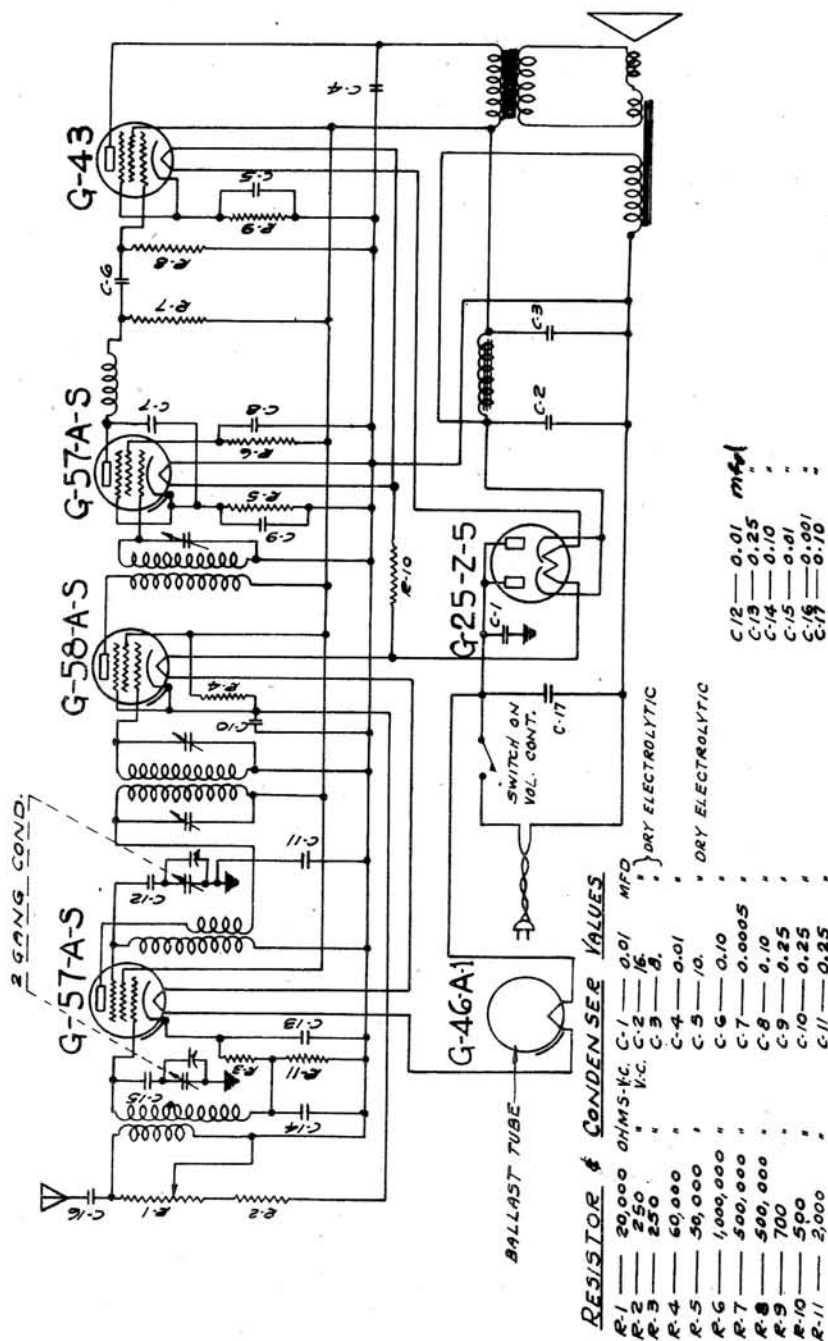
The Model 360 is an eleven tube chassis designed for single speaker operation in the Model 363 receiver. This chassis is very similar to the Model 300 chassis in that it provides Synchro-Silent Tuning, resistance coupled push-pull output, reactance dimmer action and automatic volume control. The tubes employed and their respective stages are as follows: G-58-S, R.F. amplifier; G-56, Oscillator; G-58-S, first detector; G-58-S, I.F. amplifier; G-56, second detector; G-57-S, first audio amplifier, G-57-S, suppressor; G-56, phase rotator; two G-59-B push-pull output and G-82 rectifier.

MODEL 400 CHASSIS

and

MODEL G-26-C SPEAKER

SCHEMATIC DIAGRAM OF MAJESTIC SCREEN GRID
AC.-D.C. SUPERHETERODYNE RECEIVER MODEL -400



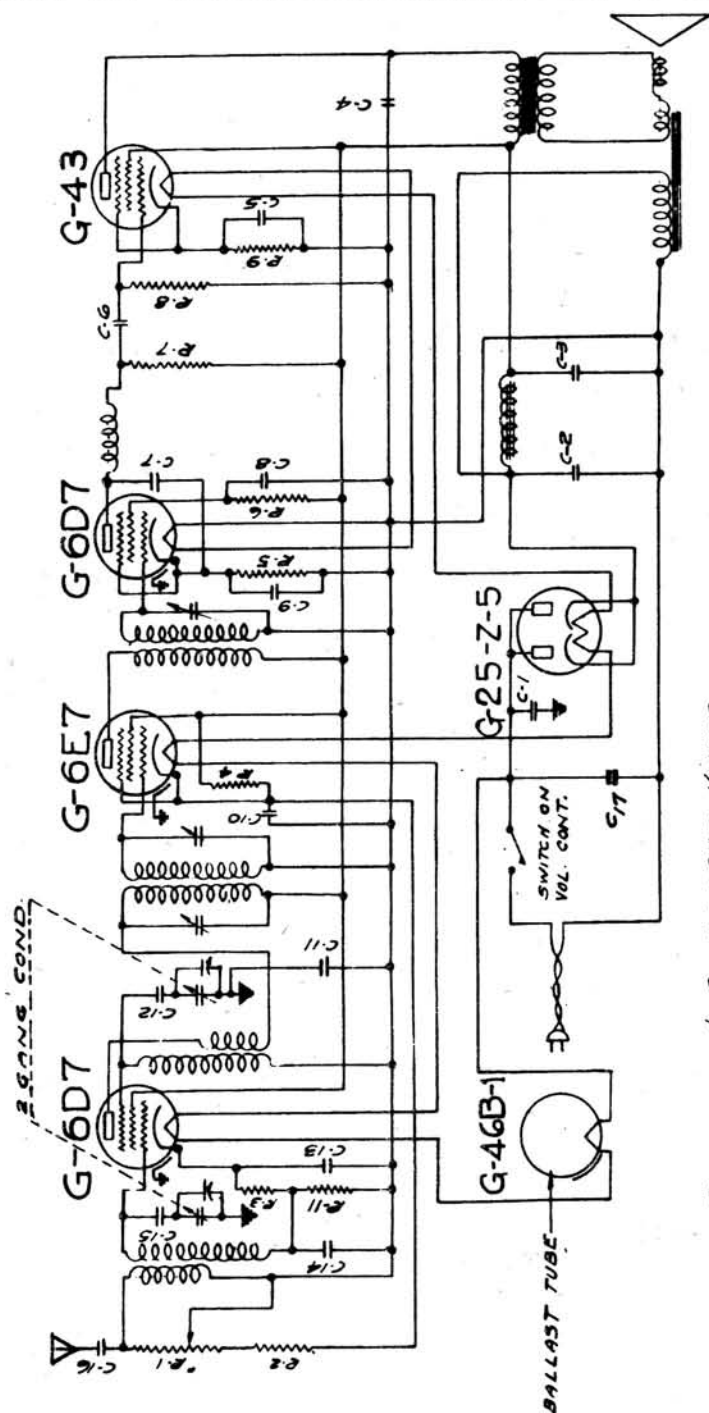
1 - With the volume control in maximum volume position and the gang condenser completely out of mesh, supply a 456 K.C. signal to the grid of the modulator tube and adjust the 4 I.F. tuning condensers for maximum sensitivity.

ALIGNMENT PROCEDURE

2 - With the gang condenser and volume control in the same position, supply a 1730 K.C. signal to the input of the receiver and align the 2 R.F. trimmer condensers for maximum sensitivity.

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

SCHEMATIC DIAGRAM OF MAJESTIC SCREEN GRID A.C.-D.C. SUPERHETERODYNE RECEIVER MODEL - 400-A



I.F. 456 KC.

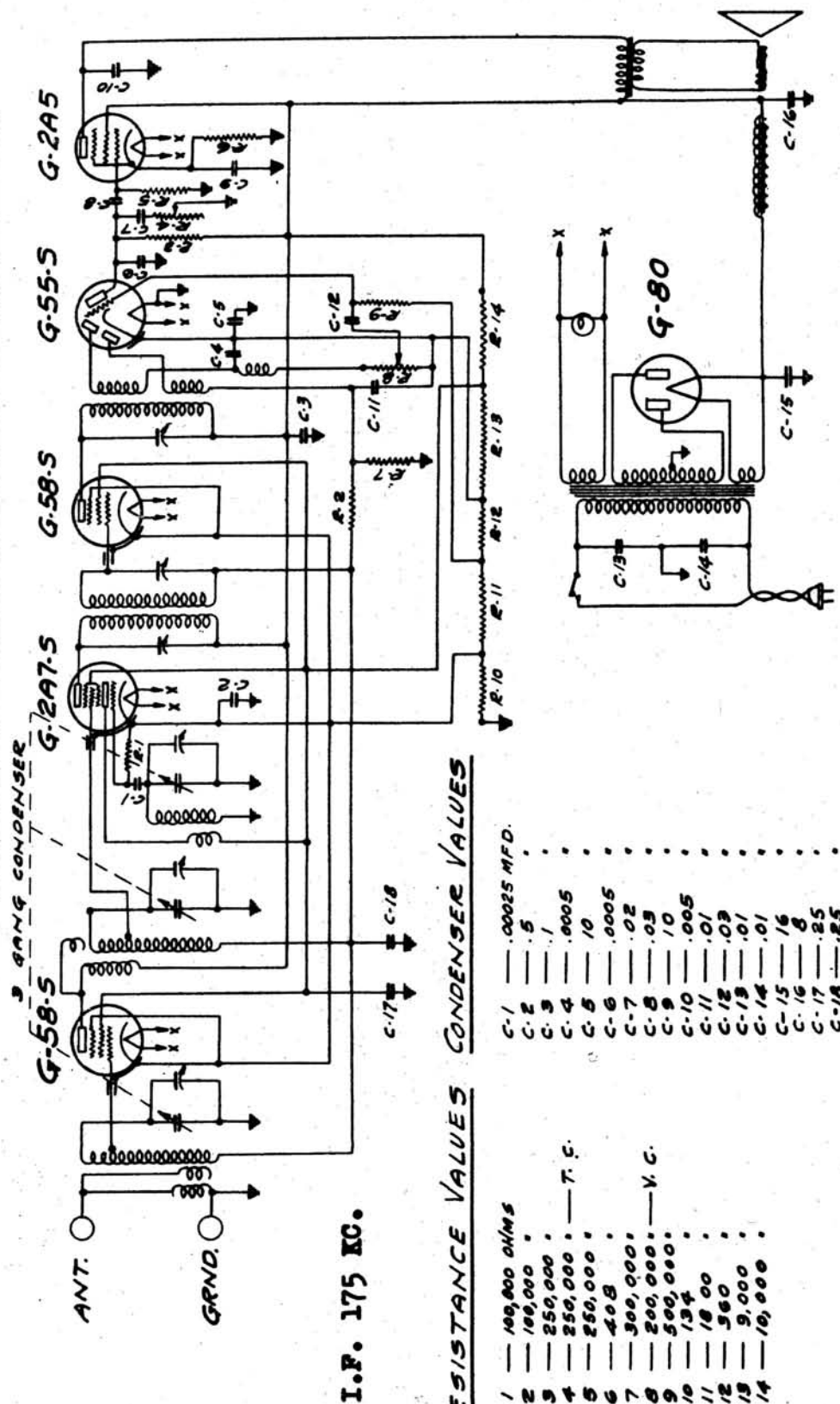
RESISTOR & CONDENSER VALUES

RESISTOR	OHMS-KC.	C-1	0.01	MFD
R-1	20,000	C-1	16	DRY ELECTROLYTIC
R-2	160	C-2	0.01	DRY ELECTROLYTIC
R-3	160	C-3	0.01	DRY ELECTROLYTIC
R-4	50,000	C-4	0.01	DRY ELECTROLYTIC
R-5	50,000	C-5	0.01	DRY ELECTROLYTIC
R-6	1,000,000	C-6	0.10	DRY ELECTROLYTIC
R-7	500,000	C-7	0.0005	DRY ELECTROLYTIC
R-8	500,000	C-8	0.10	DRY ELECTROLYTIC
R-9	700	C-9	0.25	DRY ELECTROLYTIC
R-10	2500	C-10	0.25	DRY ELECTROLYTIC
R-11	2500	C-11	0.25	DRY ELECTROLYTIC
		C-12	0.01	DRY ELECTROLYTIC
		C-13	0.25	DRY ELECTROLYTIC
		C-14	0.10	DRY ELECTROLYTIC
		C-15	0.01	DRY ELECTROLYTIC
		C-16	0.01	DRY ELECTROLYTIC

The circuit of the Model 400-A chassis is practically the same as that of the Model 400. The main differences being that the types G-6D7 and G-6E7 tubes are used in place of types G-57A-S and G-58A-S respectively; and that a type G-46A-1 tube is used as a ballast in place of the G-46B-1.

Resistors R-3 and R-11 have a value of 160 and 2500 ohms respectively in the Model 400-A chassis while they have a value of 250 and 200 ohms in the Model 400 chassis. Resistor R-10 is omitted entirely.

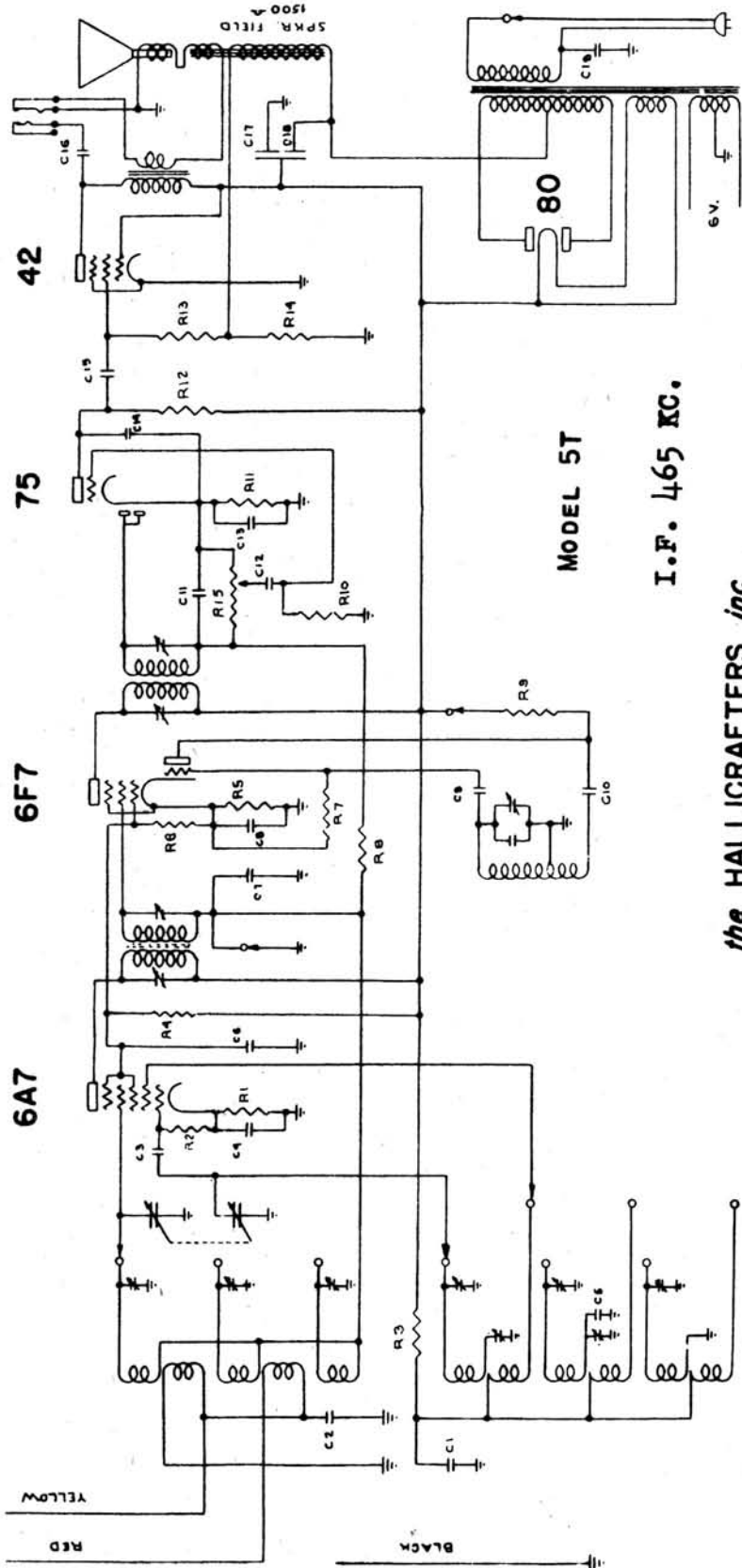
SCHEMATIC DIAGRAM OF MAJESTIC MODEL-460 RECEIVER



RESISTANCE VALUES CONDENSER VALUES

R-1	100,000 ohms	C-1	.00025 MFD.
R-2	100,000 "	C-2	.5
R-3	250,000 "	C-3	.1
R-4	250,000 "	C-4	.0005
R-5	250,000 "	C-5	.10
R-6	400 "	C-6	.0005
R-7	300,000 "	C-7	.02
R-8	200,000 "	C-8	.03
R-9	500,000 "	C-9	.10
R-10	134 "	C-10	.005
R-11	1800 "	C-11	.01
R-12	560 "	C-12	.03
R-13	9,000 "	C-13	.01
R-14	10,000 "	C-14	.01
		C-15	.16
		C-16	.8
		C-17	.25
		C-18	.25

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



R1	250
R2	30,000
R3	25,000
R4	25,000
R5	200
R6	25,000
R7	100,000
R8	1 meg
R9	100,000
R10	1 meg
R11	4000
R12	250,000
R13	400,000
R14	250

C14	250 mmf
C15	.01
C16	.05
C17	8.mfd
C18	4.mfd
C19	.01

C1	.1
C2	10 mmf
C3	100 mmf
C4	.1
C5	1000 mmf
C6	.1
C7	.05
C8	.1
C9	250
C10	.01
C11	250 mmf
C12	.01
C13	.1

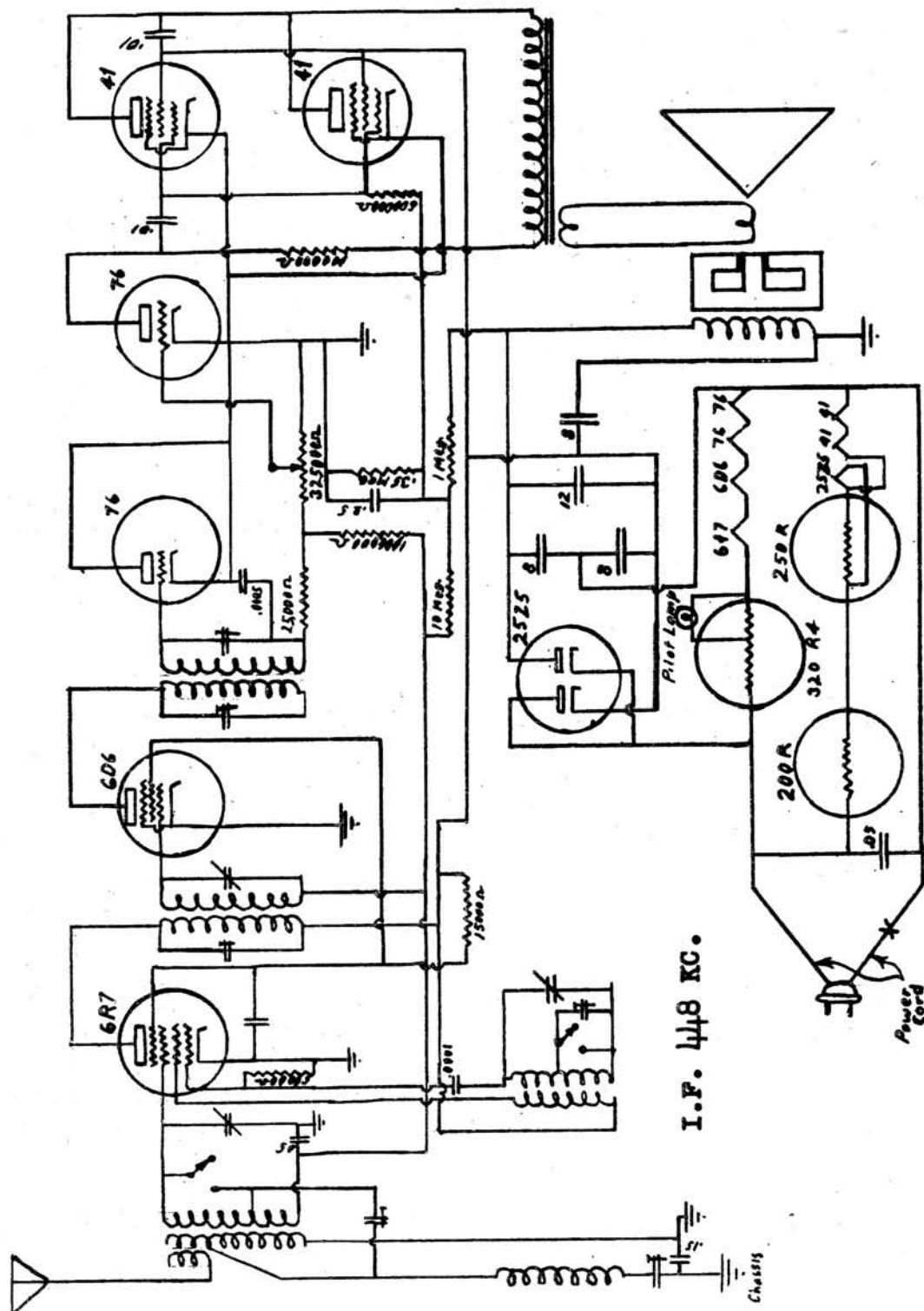
MODEL 5T

I.F. 465 KC.

the HALLCRAFTERS inc.

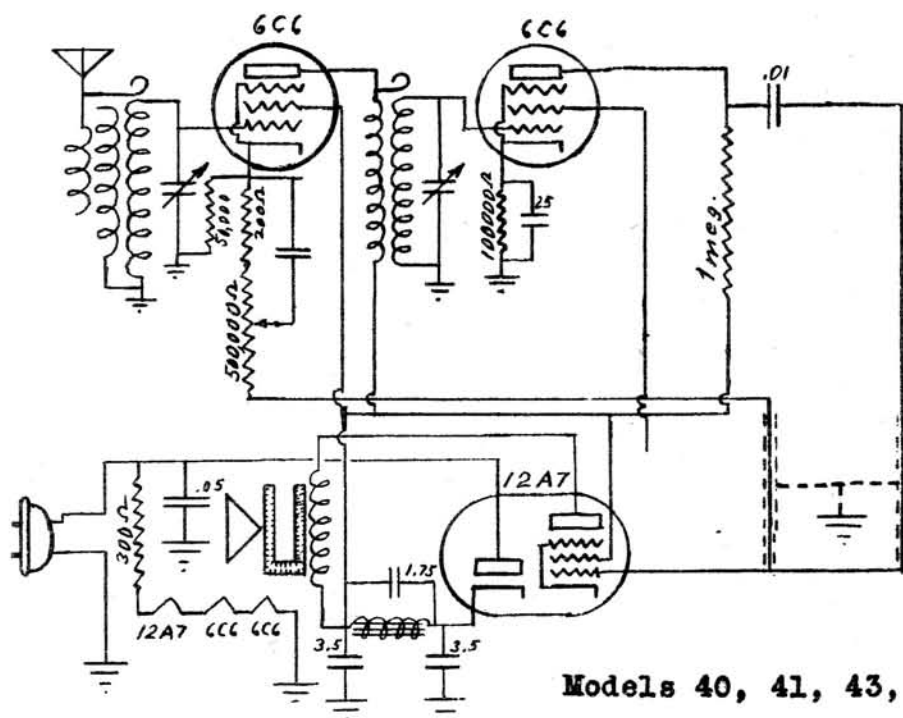
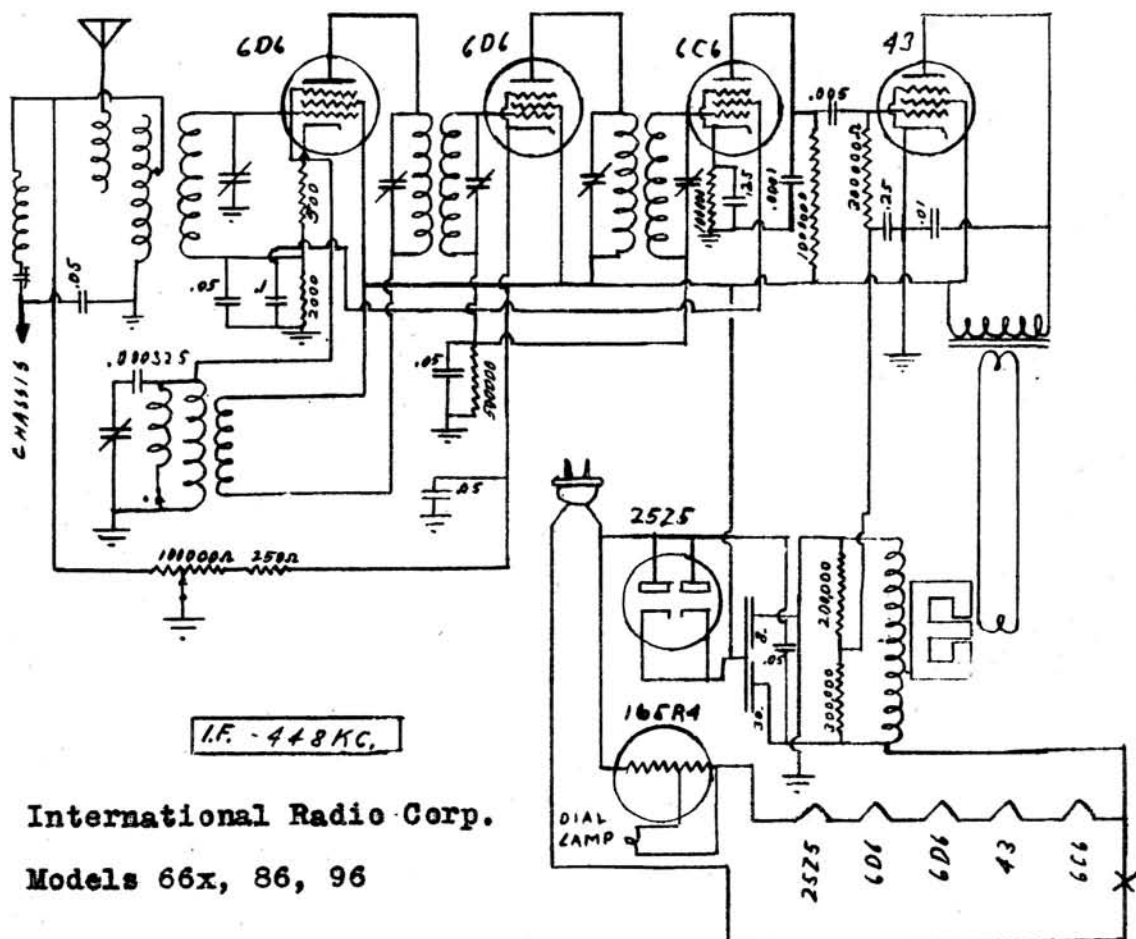
SKY BUDDY

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



International Radio Corp.
Model 1019

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

□ PRACTICAL RADIO for War Training

This new, 1943 manual will clarify the important radio facts, explain the principles which may have puzzled you, and point the way to faster radio repairing. You will find hundreds of practical hints for mounting parts, testing components, trouble-shooting, using instruments. Needed useful theory in each chapter is followed with practical applications. This is the book that will help you repair radios faster, or obtain a good radio War-job, or get ahead in the Armed Forces. Written by M. N. Beitman. 336 large pages, 6x9 inches. Printed on thick, enamel paper. Almost 300 illustrations and diagrams to help you. Seal **\$2.95** leatherette cover. Price only.....

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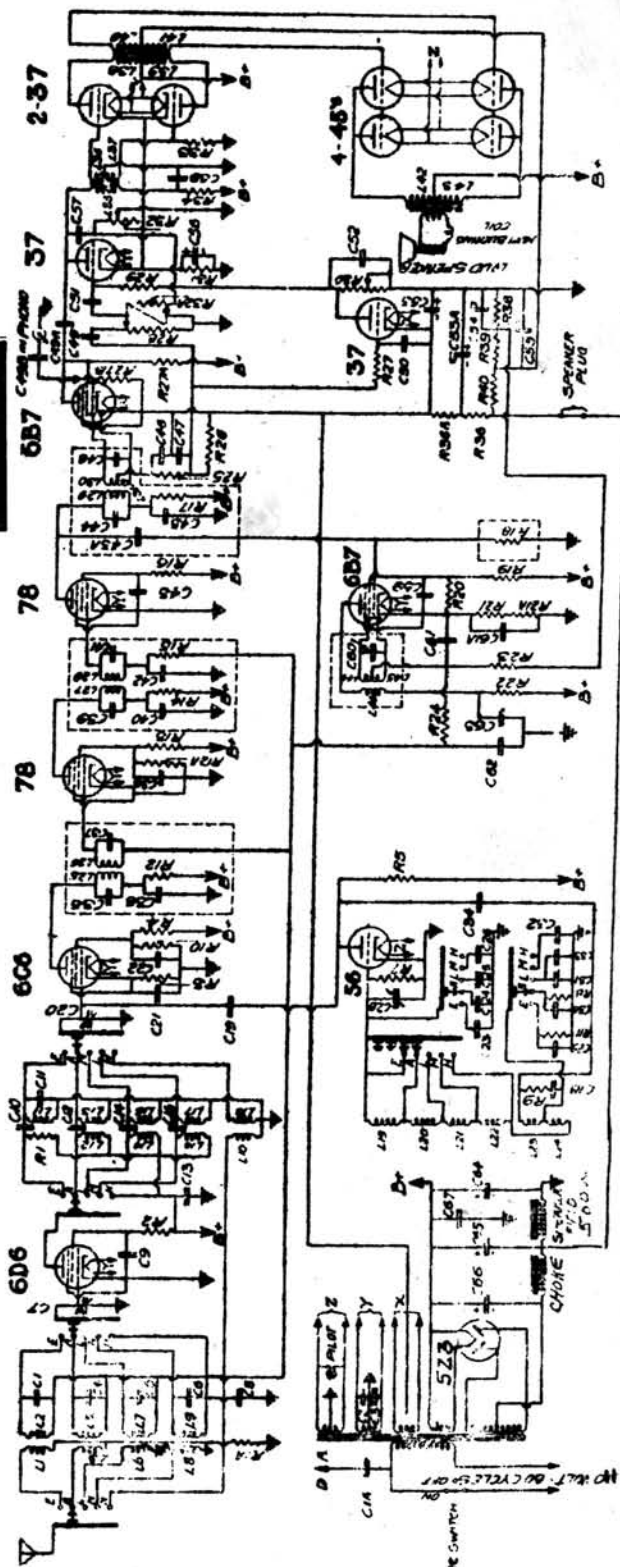
Chicago, Illinois

C1A - 250 MFD - MICA	C57 - .05	400
C1 - 80	C58 - .05	300
C2 - .05 MFD - 200 VOLT	C59 - .05	400
C3 - .05	C60 - 1.0	TRIMMER
C4 - 20 MFD - TRIMMER	C61 - .001 MFD	600 VOLT
C5 - 20	C62 - .05	200
C6 - 20	C63 - .05	600
C7 - 365	C64 - .05	400
C8 - .05 MFD - 200 VOLT	C65 - .05	ELECTROLYTIC
C9 - .05	C66 - .05	400
C10 - 20 MFD - MICA	C67 - .05	400 VOLT
C11 - 80		
C12 - 20		
C13 - .05 MFD - 800 VOLT	R1A - 5 000	25 MHT
C14 - 20 MFD - TRIMMER	R1 - 75 000	25
C15 - 20	R2 - 200 000	25
C16 - 20	R3 - 5 000	25
C17 - 20	R4 - 30 000	25
C18 - 20	R5 - 10 000	1
C19 - 20	R6 - 500 000	25
C20 - 365	R7 - 200 000	25
C21 - .05 MFD - 500 VOLT	R8 - 1 000	25
C22 - .05	R9 - 10 000	25
C23 - 80 MFD - TRIMMER	R10 - 50 000	25
C24 - 20	R11 - 5 000	25
C25 - 20	R12 - 5 000	25
C26 - 20	R13 - 100 000	25
C27 - 365	R14 - 200 000	25
C28 - 180	R15 - 5 000	25
C29 - 365	R16 - 5 MEG	25
C30 - 700	R17 - 200 000	25
C31 - 500	R18 - 5 000	25
C32 - 500	R19 - 25 000	25
C33 - 2000	R20 - 50 000	25
C34 - 1.0	R21 - 4 000	25
C35 - .05 MFD - 400 VOLT	R22 - 4 000	25
C36 - 1.0	R23 - 5 000	25
C37 - 1.0	R24 - 100 000	25
C38 - .05 MFD - 400 VOLT	R25 - 100 000	25
C39 - 1.0	R26 - 500 000	25
C40 - .05 MFD - 200 VOLT	R27 - 500 000	25
C41 - .05	R28 - 500 000	25
C42 - .05	R29 - 500 000	25
C43 - .05	R30 - 500 000	25
C44 - 25 MFD - MICA	R31 - 500 000	25
C45 - 25 MFD - 400 VOLT	R32 - 500 000	25
C46 - 25 MFD - MICA	R33 - 500 000	25
C47 - 250	R34 - 500 000	25
C48 - 1.0	R35 - 500 000	25
C49 - 1.0	R36 - 500 000	25
C50 - 25	R37 - 500 000	25
C51 - .05	R38 - 500 000	25
C52 - .05	R39 - 500 000	25
C53 - .05	R40 - 500 000	25
C54 - .05	R41 - 500 000	25
C55 - .05	R42 - 500 000	25
C56 - .05	R43 - 500 000	25

THE MIDWEST RADIO CORP.

908 BROADWAY, CINCINNATI, OHIO.

SCHEMATIC CIRCUIT DIAGRAM
OF THE
MODEL 15-34 SET



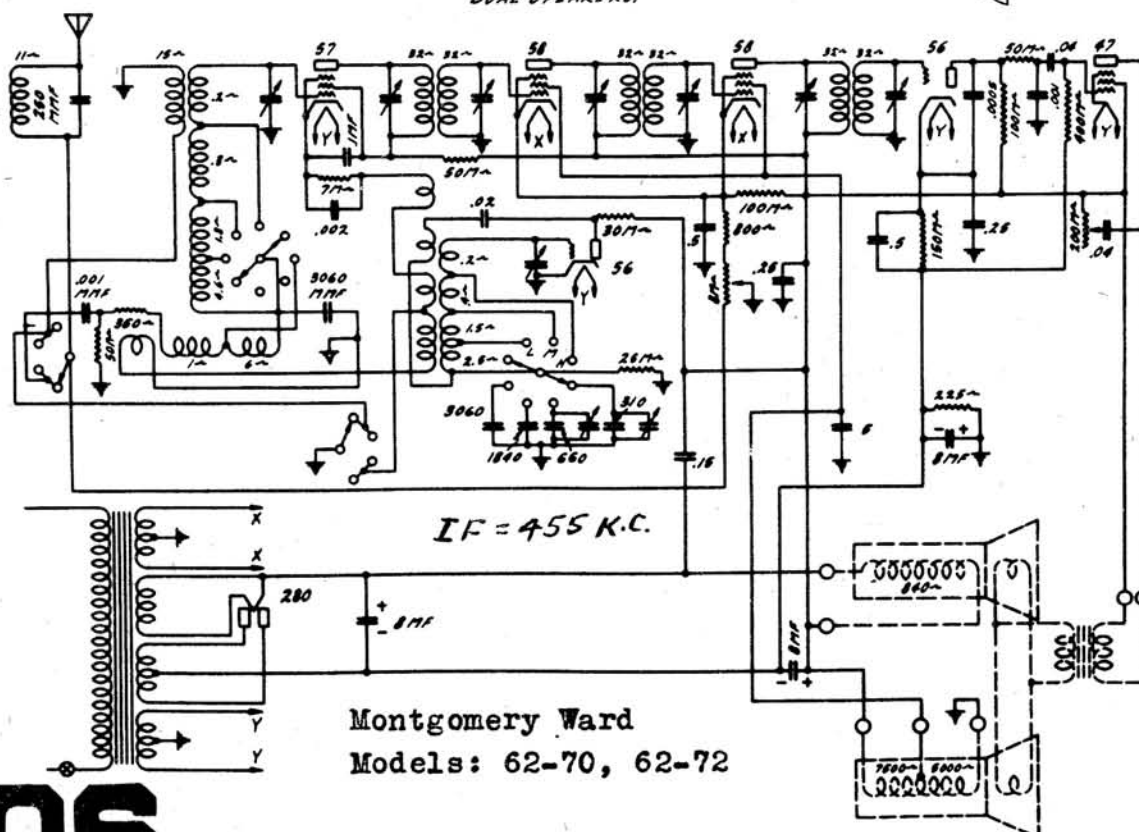
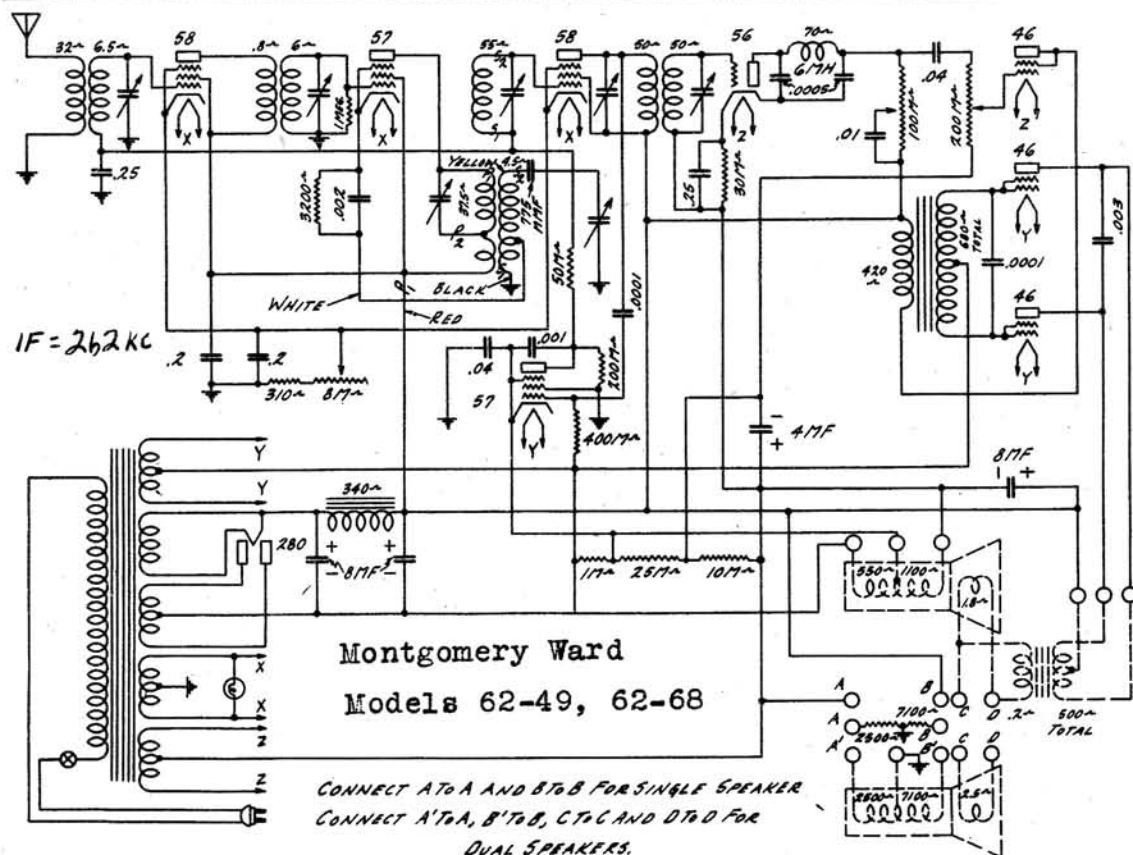
I.F. 450 KC.

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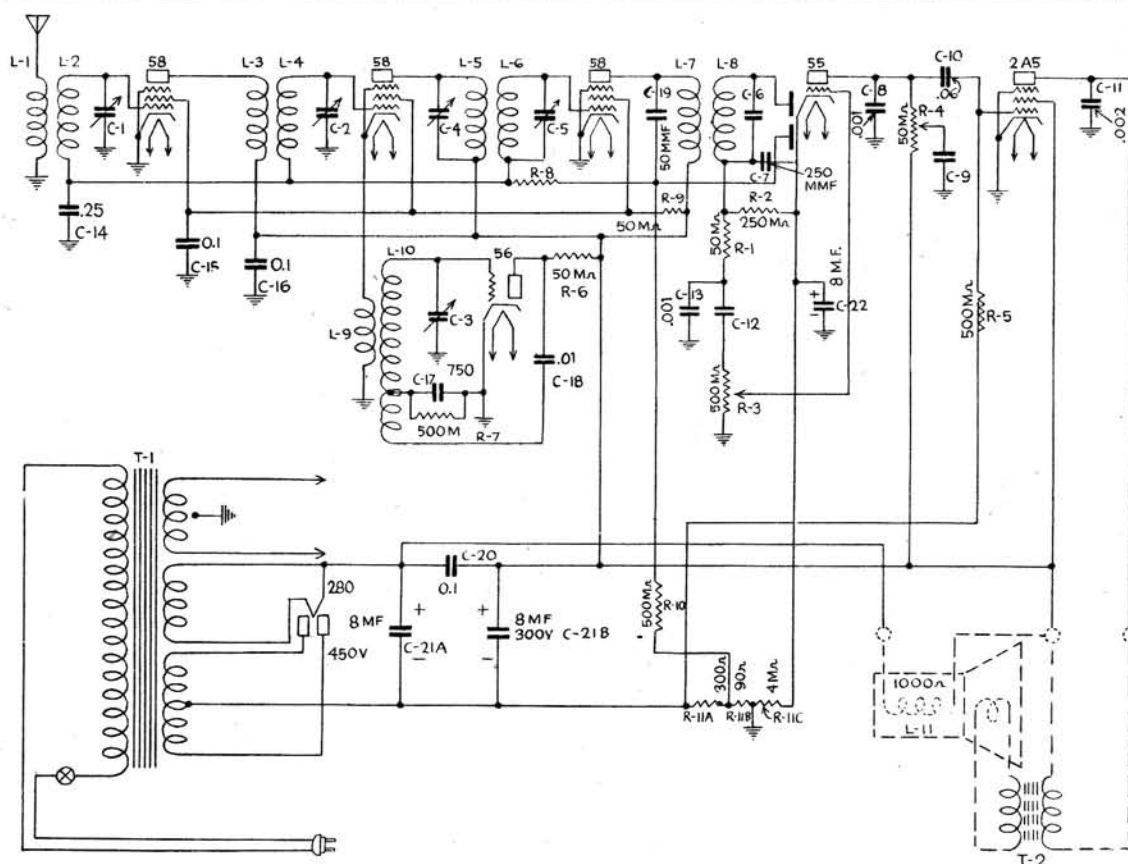
105

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

MONTGOMERY WARD & CO.



MONTGOMERY WARD & Co.



Circuit

The oscillator frequency is exactly 262 K. C. above the frequency of the received signal. To provide that the oscillator shall track accurately it is provided with a 675 Mmf. Series Padder Condenser, C-17, and also a shunt trimmer condenser which allows accurate alignment at high frequencies.

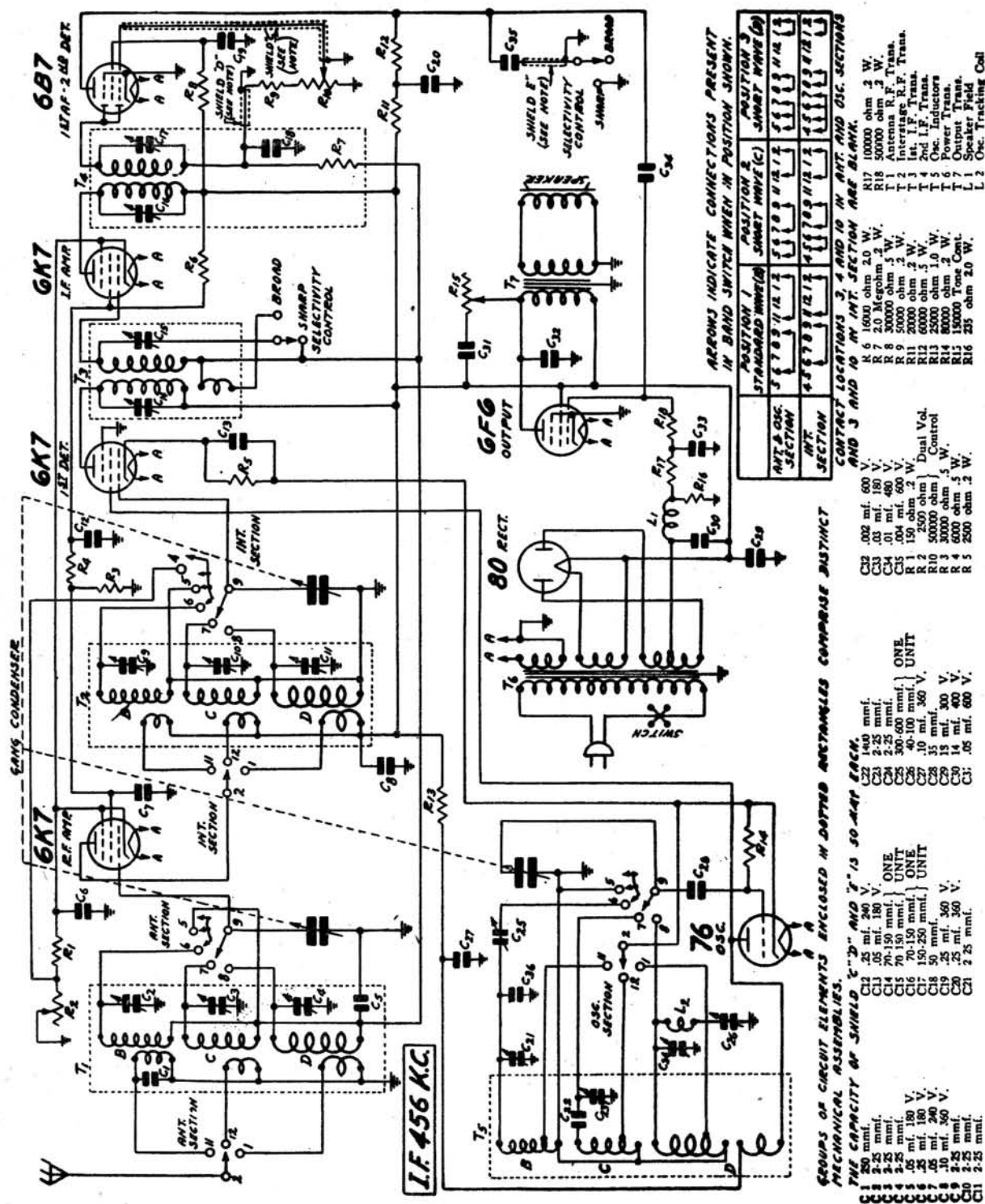
Line Voltage 115—Volume Control at Maximum

Type of Tube	Position of Tube	Function	"A" Volts	"B" Volts	Control Grid "C" Volts	Screen Grid Volts	Screen Current MA	Plate Current MA	Cathode Volts
56	1	Osc.	2.3	110	15-30(1)	...	...	3-3.4(1)	0
58	2	R. F.	2.3	260	2.0(2)	90(2)	1.2	4.8	0
58	3	1st Det.	2.3	260	2.0(2)	90(2)	1.3	5.4	0
58	4	1. F.	2.3	260	2.0(2)	90(2)	1.2	4.6	0
55	5	2nd Det. AVC-1st Audio	2.3	Diode 1-0 Diode 2-3 Triode 135	2.0(3)	...	...	4.6	12
2A5	6	Power	2.3	255	3.0(6)	260	...	...	0
80	7	Rectifier	4-8					26 Per Plate	

(6) Voltage as read with 60,000 ohm meter—across 300 and 90 ohm section of R-11—22 volts.

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

Montgomery Ward Models 62-185, 62-187, 62-190, 62-196



MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

Montgomery Ward Radio Model 62-233

DESCRIPTION

Tubes

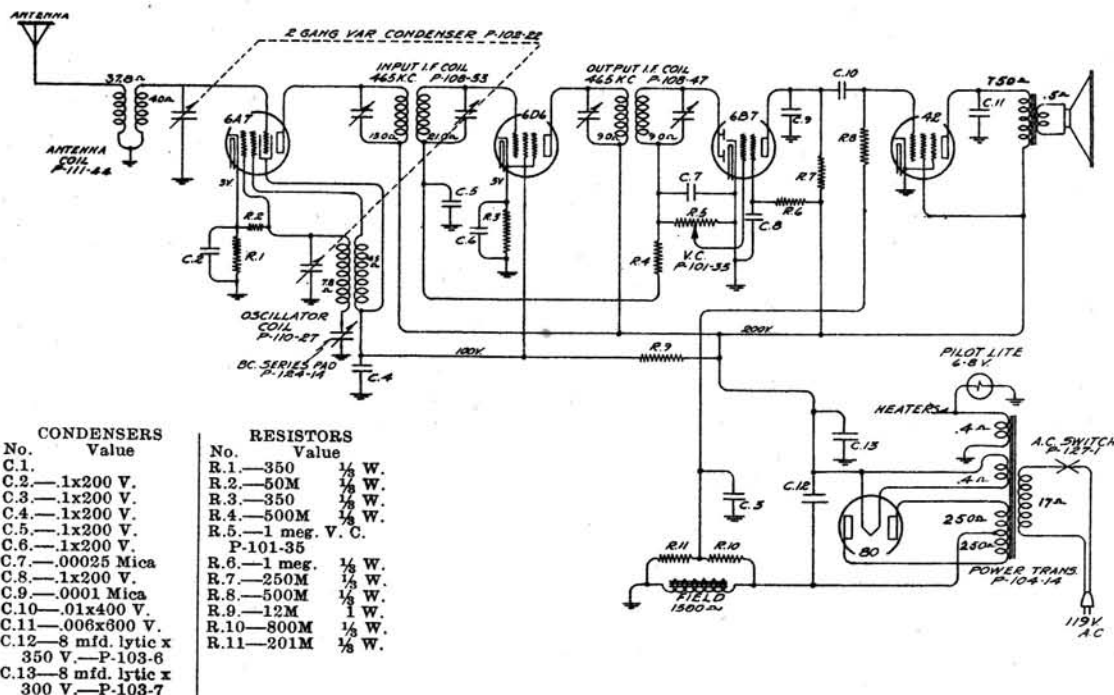
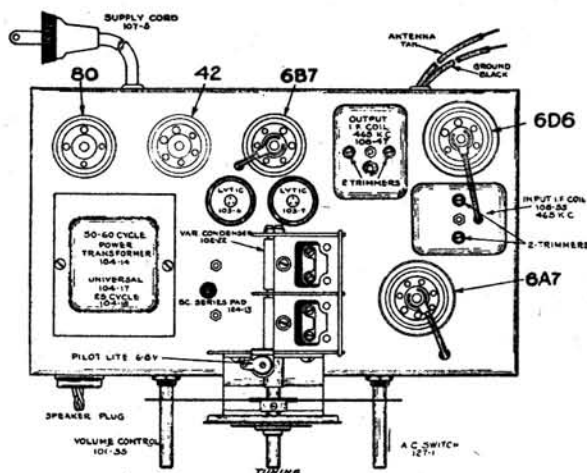
The Tube complement of this chassis is as follows:

- 1 Type 6A7—pentagrid electron coupled oscillator and first detector.
- 1 Type 6D6—remote cut-off pentode as I.F. amplifier.
- 1 Type 6B7—duplex diode pentode as diode detector, A.V.C. and A.F.
- 1 Type 42—pentode output tube.
- 1 Type 80—high vacuum rectifier.

Voltages taken from different points of circuit to chassis are measured with volume control full on, all tubes in their sockets and speaker connected, with a volt meter having a resistance of 1000 ohms per volt. These voltages are clearly indicated on the circuit diagram.

All voltages are measured with 119 volts on the primary of the power transformer.

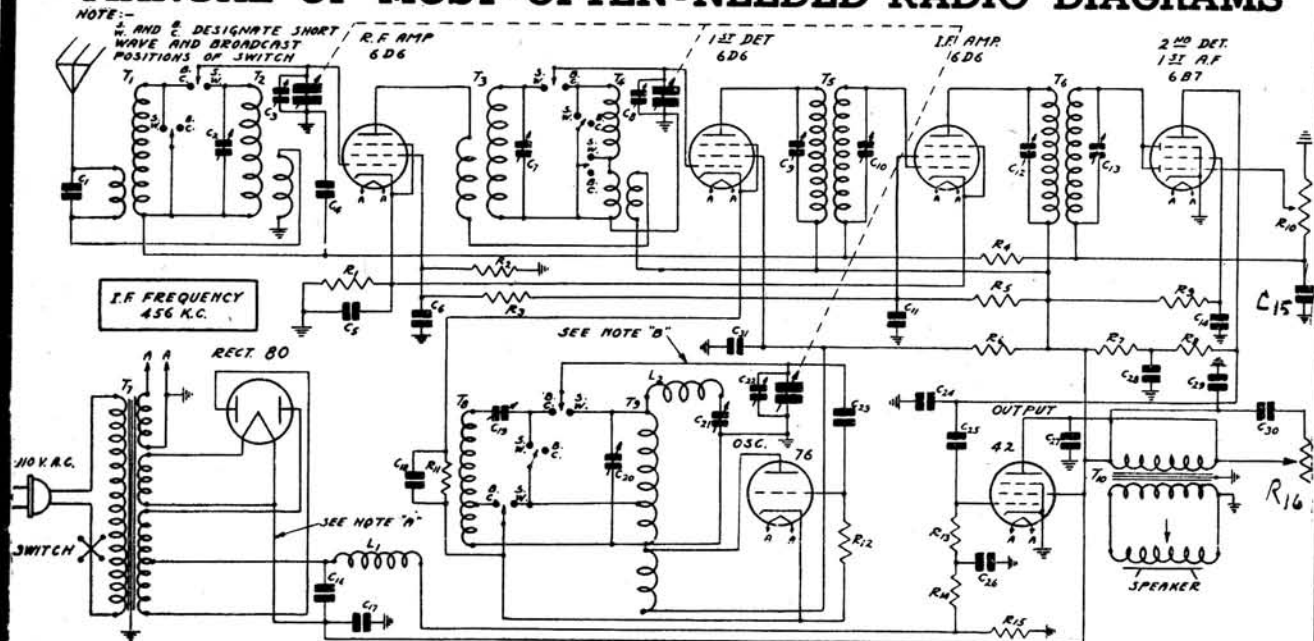
Resistance of coils and transformer windings are indicated in ohms on schematic circuit diagram.



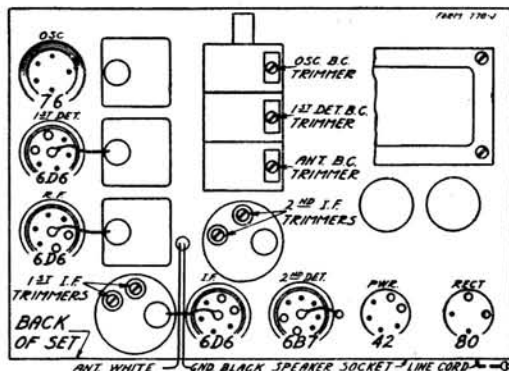
Service Notes

To check for open by-pass condensers, shunt each condenser with another of similar capacity and of the same voltage rating, which is known to be good, until the defective unit is located. Open by-pass condensers frequently cause oscillation and distorted tone. Defective and shorted electrolytic filter condensers cause excessive hum, motor-boating, low volume and a reduction in all D.C. voltages. Open or shorted electrolytic and by-pass condensers (across bias resistor of type 42 tube) will cause low volume and distorted tone.

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



Montgomery Ward Models
62-123, 62-131, 62-133,
62-142, 62-144, 62-152,



Voltages at Sockets LINE VOLTAGE — 115 ANTENNA SHORTED TO GROUND

Type of Tube	Function	Across Fila. or Heater	Plate to Cath.	Screen to Cath.	Control Grid to Cath.	Normal Plate M. A.
6D6	R. F.	6.3	246	100	3.6(1)	5.3
6D6	1st Det.	6.6	237	97	8.0(2)	3.4
76	Osc.	6.3	115		0	4.8
6D6	I. F.	6.3	246	130	3.6(1)	8.3
6B7	2nd Det.	6.3	50(3)	40(3)	0	2.7
42	Power	6.3	230	245	17.0(4)	33.0
80	Rectifier	5.0				37.0 per plate

- (1) Cathode to ground
- (2) Subject to variation
- (3) Read with 1,000,000 ohm meter
- (4) As read across R15

Code	Capacity	Volts	Type
C1	.00025 mfd.		Moulded
C2	3-40 mmfd.		Ant. S. W. Trimmer
C3	(See 3 Gang Cond.)		Gang Trimmer
C4	.05 mfd.	200V.	Tubular
C5	.25 mfd.	200V.	Tubular
C6	.05 mfd.	400V.	Tubular
C7	3-40 mmfd.		1st Det. S. W. Trim
C8	(See 3 Gang Cond.)		Gang Trimmer
C9	90±30 mmfd.		Dual Trimmer
C10	90±30 mmfd.		Part of I. F. Assem.
C11	.25 mfd.	300V.	Tubular
C12	90±30 mmfd.		Dual Trimmer
C13	90±30 mmfd.		Part of I. F. Assem.
C14	.25 mfd.	400V.	Tubular
C15	.0001 mfd.		Moulded
C16	18.0 mfd.	300V.	Electrolytic Wet ..
C16	8.0 mfd.	450V.	Electrolytic Wet ..
C17	8.0 mfd.	500V.	Electrolytic Wet ..
C17	14.0 mfd.	400V.	Electrolytic Wet ..
C18	.05 mfd.	200V.	Tubular
C19	300-500 mmfd.		600 K. C. Trimmer
C20	3-40 mmfd.		Osc. S. W. Trimmer
C21	70±30 mmfd.		6000 K. C. Trimmer
C22	(See 3 Gang Cond.)		Gang Trimmer
C23	.000035 mfd.		Moulded
C24	.002 mfd.	600V.	Tubular
C25	.01 mfd.	400V.	Tubular
C26	.03 mfd.	400V.	Tubular
C27	.002 mfd.	600V.	Tubular
C28	.25 mfd.	400V.	Tubular
C29	.1 mfd.	400V.	Tubular
C30	.05 mfd.	400V.	Tubular
C31	.1 mfd.	400V.	Tubular

Code	Resistance	Watts	Type
R1	200 ohm	.2	Flex. Wire Wound ..
R2	30,000 ohm	.5	Carbon
R3	6,000 ohm	.5	Carbon
R4	2.0 megohm	.2	Carbon
R5	16,000 ohm	1.5	Armored
R6	25,000 ohm	1.0	wire wound
R7	20,000 ohm	.2	Carbon
R8	60,000 ohm	.5	Carbon
R9	250,000 ohm	.5	Carbon
R10	500,000 ohm		Vol. Control & Switch
R11	2,500 ohm	.2	Carbon
R12	100,000 ohm	.2	Carbon
R13	500,000 ohm	.2	Carbon
R14	100,000 ohm	.2	Carbon
R15	235 ohm	2.0	Flex. Wire Wound ..
R16	150,000 ohm		Tone Control

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

WARDS AIRLINE RADIO

MODELS 62-425 and 62-265

The tube complement of this chassis is as follows:

- 1 Type 6A7—pentagrid oscillator and first detector.
- 1 Type 78—remote cut-off pentode as I.F. amplifier.
- 1 Type 75—duplex diode triode as diode detector, A.V.C. and A.F.
- 1 Type 41—pentode output tube.
- 1 Type 5Z4 or 5Y3—high vacuum rectifier.

ALIGNING INSTRUCTIONS:

CAUTION:—No aligning adjustments should be attempted without first thoroughly checking over all other possible causes of trouble, such as poor installations, open or grounded antenna systems, low line voltages, defective tubes, condensers and resistors. In order to properly align this chassis, an oscillator (generator) is absolutely necessary. No aligning adjustments should be attempted with the chassis in the cabinet. Remove the knobs and the two bolts which are used to fasten the chassis.

All adjustments should be made with a non-metallic screw driver.

RESONANCE INDICATOR:

Use as a resonance indicator an output meter connected across the primary of the speaker input transformer, or by

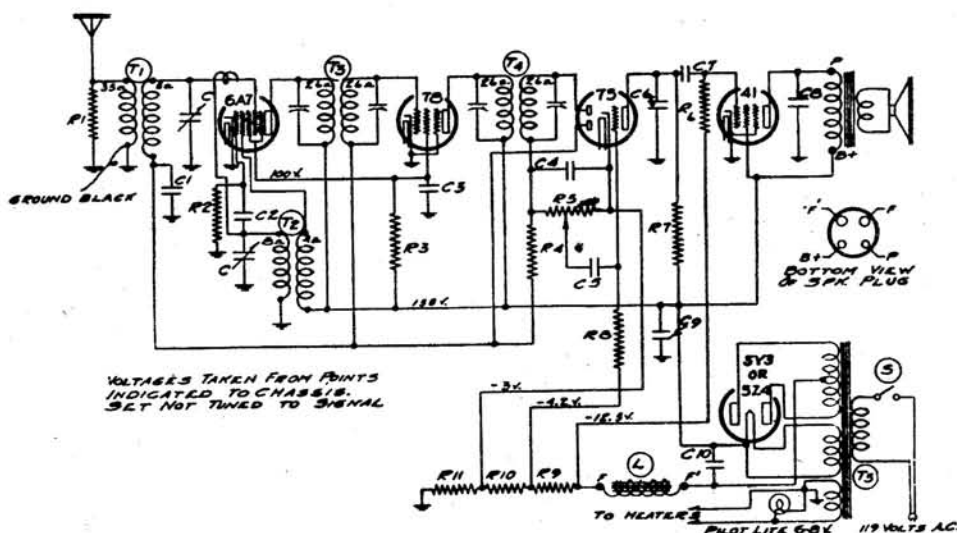
means of an adapter between the plate and screen terminals of the type 41 output tube. Use only enough signal to get a readily readable output. A low range output meter or the low scale of a multi-range voltmeter should be used.

ALIGNING I. F. TRANSFORMERS: (465 K. C.)

Connect external oscillator which has been adjusted to 465 kilocycles in series with .1 mfd. condenser, to the control grid cap of the type 6A7 tube. Ground the chassis to the oscillator. Adjust output I.F. transformer (No. 108-83) and input I.F. transformer (No. 108-82) to resonance. See label on bottom of cabinet for location of these transformers.

R. F. ALIGNMENT: (535-1720 K. C.)

1. With gang condenser in its minimum capacity position, plates entirely out of mesh, connect an external oscillator in series with a 200 mmf. condenser to tan antenna and black ground leads and make the following adjustments:
 - (a) With external oscillator set at 1720 kilocycles, adjust oscillator trimmer (rear of gang condenser).
 - (b) Re-set external oscillator to 1400 kilocycles, rotate condenser, pick up oscillator signal and adjust antenna trimmer to resonance (front section of gang condenser).
 - (c) Check sensitivity at 600 and 1000 kilocycles.



CONDENSERS			
Part No.	Schematic Reference	Description	No. Used In Set
BE 100-11	C-5:C-7	.01 x 400 Volt Tubular	2
BE 100-19	C-8	.006 x 600 Volt Tubular	1
BE 100-1	C-3	.1 x 400 Volt Tubular	1
BE 100-22	C-1	.05 x 200 Volt Tubular	1
BE 119-24	C-9:C-10	Dual 5 mfd. x 200 Volt Electrolytic	1
BE 129-5	C-6	.0001 Mica—Type MT—20%	1
BE 129-12	C-2:C-4	.00025 Mica—Type MT—20%	2
RESISTORS			
BE 106-29	R-9:R-10	(R9, 200 ohm); (R10, 33 ohm); (R11, 100 ohm) Metal clad resistor	1
BE 130-17	R-11	Ohm-1/3 Watt-20%-20 V. Carbon	1
BE 130-109	R-3	750M Ohm-1/2 Watt-20%-10 V. Carbon	1
BE 130-117	R-2	50M Ohm-1/10 Watt-20%-50 V. Carbon	1
BE 130-118	R-6	600M Ohm-1/3 Watt-20%-100 V. Carbon	1
BE 130-121	R-4:R-8	3.2 Meg Ohm-1/3 Watt-30%-100 V. Carbon	2
BE 130-122	R-7	210M Ohm-1/10 Watt-30%-20%-50 V. Carbon	1
COILS			
BE 108-82	T3	Input I.F. Coil Assem. Comp. with Can.	1
BE 108-83	T4	Output I.F. Coil Assem. Comp. with Can.	1
BE 110-46	T2	Oscillator Coil Assembly Complete	1
BE 111-58	T1	Antenna Coil Assembly Complete	1
SOCKETS			
BE 121-6		Six Prong Socket—Marked "41"	1
BE 121-6		Six Prong Socket—Marked "75"	1
BE 121-6		Six Prong Socket—Marked "78"	1
BE 121-7		Seven Prong Socket—Marked "6A7"	1
BE 121-9		Four Prong Socket—Marked "5PKR"	1
BE 121-16		Five Prong Socket—Marked "5Z4"(Octal)	1

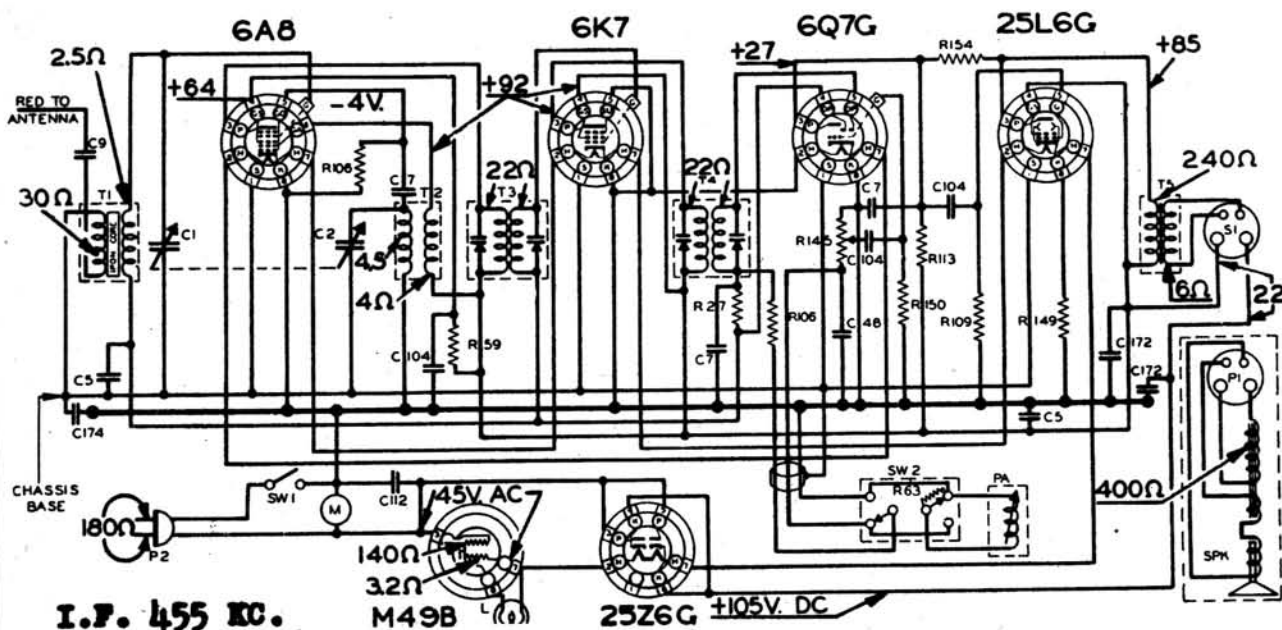
MISCELLANEOUS		
Part No.	Schematic Reference	Description
BE 101-54	R-5	Volume Control and Switch (1 meg ohm)
BE 102-33	C	Two Gang Variable Condenser
BE 107-39		Line Cord & Plug
BE 128-8		Ivory Bakelite Knob (Model 62-265)
BE 131-2		Brown Bakelite Knob
BE 131-8		Spring for above knob
DIAL PARTS LIST		
BE 107-28		Pilot Light Socket
BE 112-15		Dial Crystal only—less escutcheon
BE 112-160		Dial Pointer Complete with screw
BE 112-164		Brown Bakelite Escutcheon complete with crystal
BE 112-226		Ivory Bakelite Escutcheon complete with glass (Model 62-265)
BE 112-167A		Dial Scale
BE 116-13		6-8 Volt, T-51 Pilot Light Bulb
BE 117-59		Pointer Bushing Stud
BE 117-60		Pointer Bushing Assembly
BE 117-61		Drive Pulley
BE 117-68		Dial Bracket
BE 120-7A		Take-up Spring
BE 131-52		Drive Belt
BE 134-9		House Shoe Washer

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MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

ARVIN RADIO CHASSIS RE29 AND RE35

MODEL NUMBERS 58, 58A AND 88



RESISTORS				
Ref. No.	Part No.		Description	
R99	17-4171	15,000	ohms	watt
R27	17-4788	2,000,000	ohms	watt
R106	17-14171	50,000	ohms	watt
R109	17-14174	500,000	ohms	watt
R-113	17-14178	250,000	ohms	watt
R149	17-14241	150	ohms	watt
R150	17-14242	5,000,000	ohms	watt
R154	17-14244	1,500,000	ohms	watt

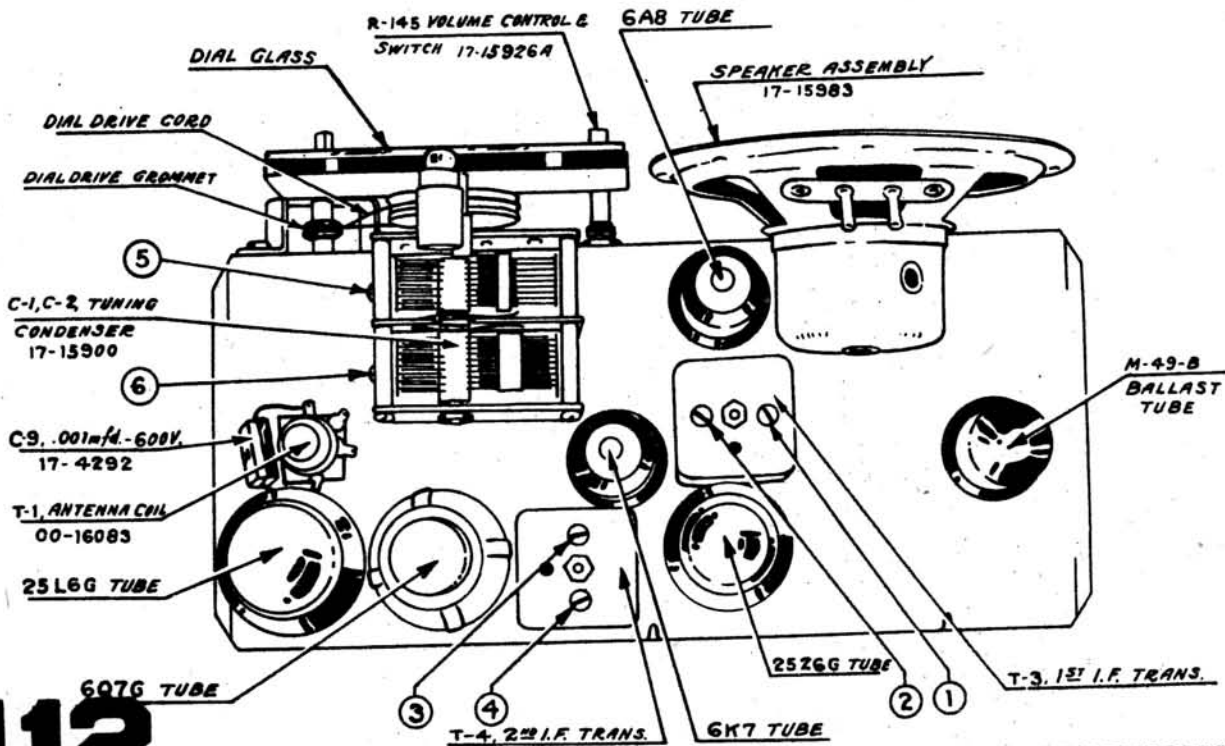
CONDENSERS		
Ref. No.	Part No.	Description
C7	17-2054	.0001 mfd. 500 volt
C104	17-4206	.01 mfd. 200 volt
C48	17-4207	.00025 mfd. 600 volt
C9	17-4292	.001 mfd. 600 volt
C5	17-14015	.05 mfd. 200 volt
C112	17-14139	.05 mfd. 400 volt
C172 A & B	17-14239	20-20 mfd. 150 volt
C174	17-14248	.2 mfd. 400 volt
C1-C2	17-13900	Tuning Condenser

COILS and TRANSFORMERS		
Ref. No.	Part No.	Description
T2	00-19979	Oscillator Coil
T-3	00-19980	Output Transformer
T3	00-16060	1st I.F. Transformer
T4	00-16061	2nd I.F. Transformer
T1	00-16063	Antenna Coil

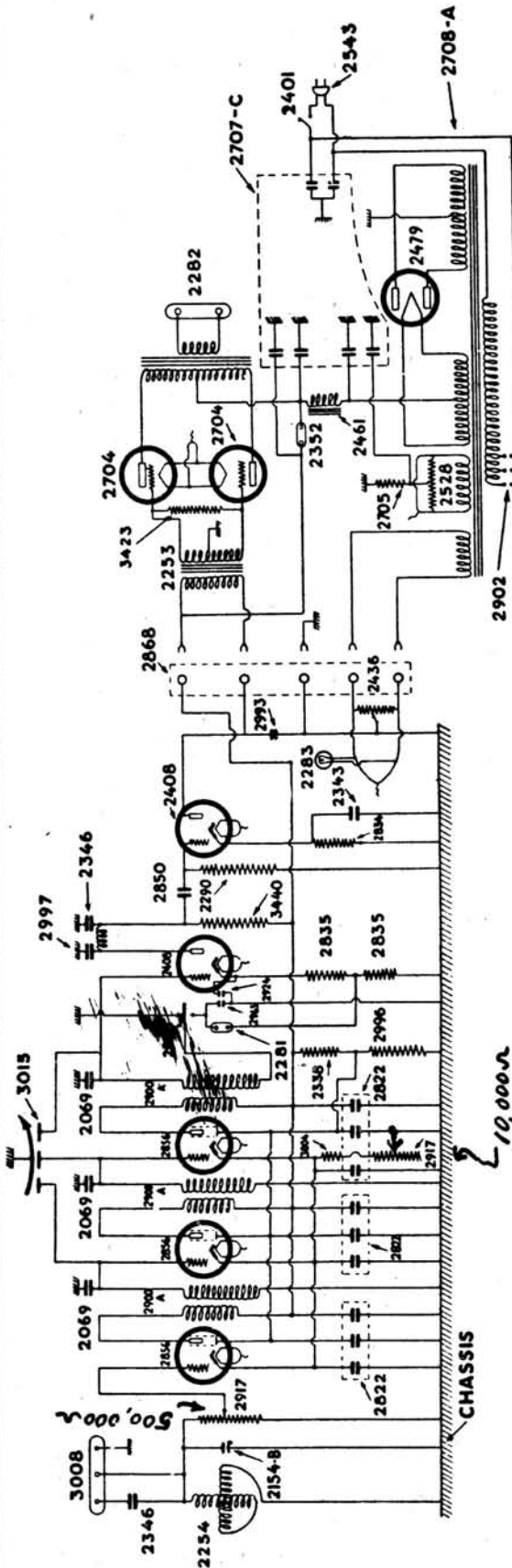
SPRINKERS, DIAL PANTS, CARBONETS & MISCELLANEOUS

Part No.	Description
10-5181	Chassis Mounting Screws per doc.
28-5188	Dial drive pulley (rubber)
83-2357	Grills cloth (Ivory rayon)
29-13170	Tuning shaft retaining washer
29-13583	Dial drive cord (16" long)
34-13760	Dial drive takeup spring
17-14997	Needle cup
17-14998	Needle cup cover
19-15476	Tuning condenser drive pulley

- 17-175918 Line cord and plug
- 19-19905 Cabinet (58A-Ivory)
- 32-19907 Chassis bottom cover
- 29-19909 Cabinet (58-Black)
- 32-19515 Tuning shaft bracket
- 29-19916 Chassis back cover
- 29-19934 Control switch
- 29-19929 Knob (walnut-walnut finish)
- 29-19937 Knob (walnut bakelite)
- 29-19958 Tuning Shaft
- 17-19973 Dial light socket and clip
- 81-19974 Dial glass (black background)
- 17-19983 Speaker (5" diameter)
- 17-19991 Speaker (6" diameter)
- 81-16015 Dial glass (brown background)
- 27-16020 Cabinet (Model 88)
- 17-16021 Phone pickup and arm
- 17-16022 Phone turntable motor
- 17-16024 Phone turntable
- 17-16065 Radio-Phone switch
- 27-16068 Knob (Radio-Phone switch)



MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



FIXED CONDENSERS

The fixed condensers used in Series 50 Receivers are listed below:

Part Number	Capacity, mfd.	Function
2346	.0001	Antenna series and detector plate by-pass.
2822	three 0.5 in one can	Screen grid, plate and cathode by-pass.
2924	1.0	Detector bias resistor by-pass.
2850	.01	AF coupling condenser.
2343	2.0	AF bias resistor by-pass.
2963	.002	Phonograph pick-up by-pass.
2993	.004	Audio by-pass.
2997	.0005	RF filter condenser.

National Carbon Co.

Models 50, 52, 53, 54

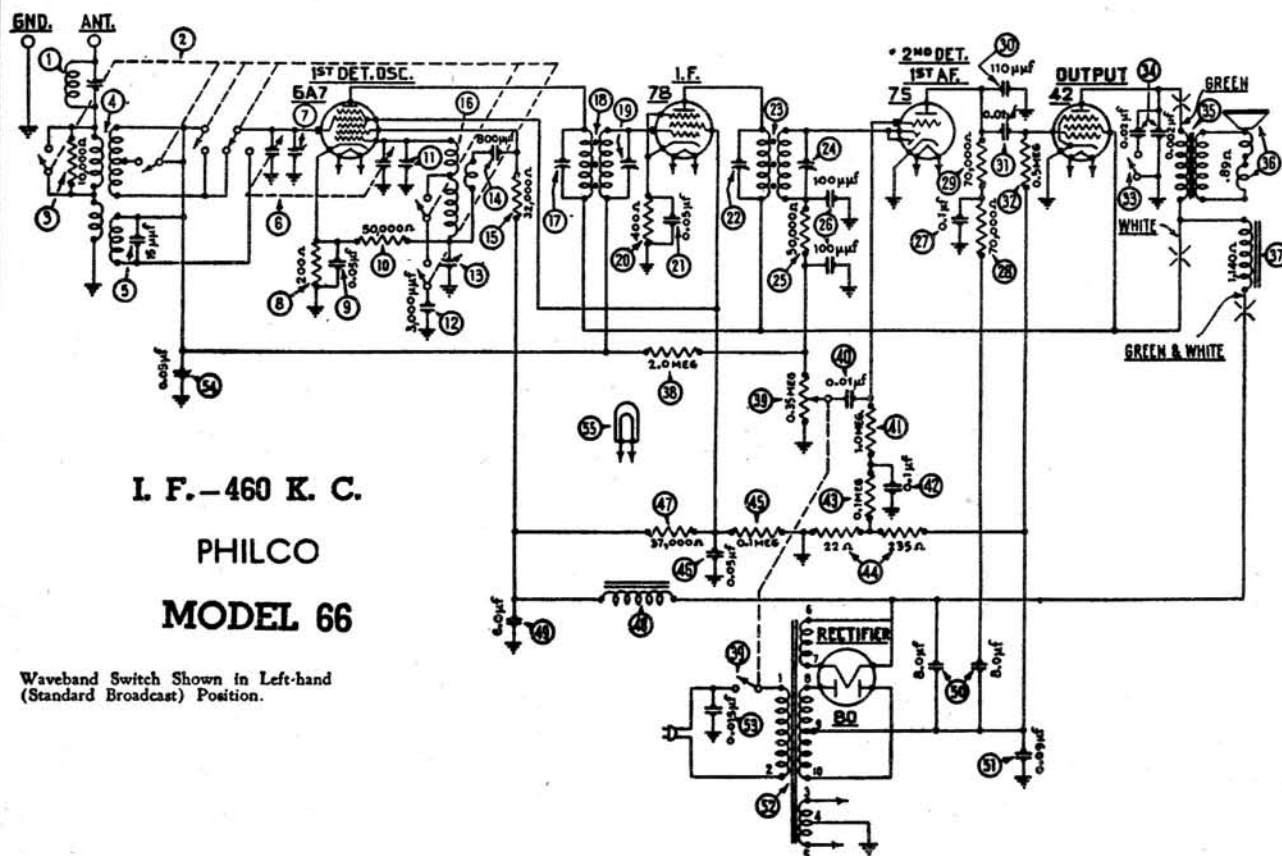
FIXED RESISTORS

Part Number	Resistance
2290	2 megohm
2835	4000 ohms
3440	125000 ohms
3004	200 ohms
2834	3000 ohms
2338	2500 ohms
2996	2250 ohms

VOLUME CONTROL: 500,000 Ω

AND 10,000 Ω

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



I. F.—460 K. C.
PHILCO
MODEL 66

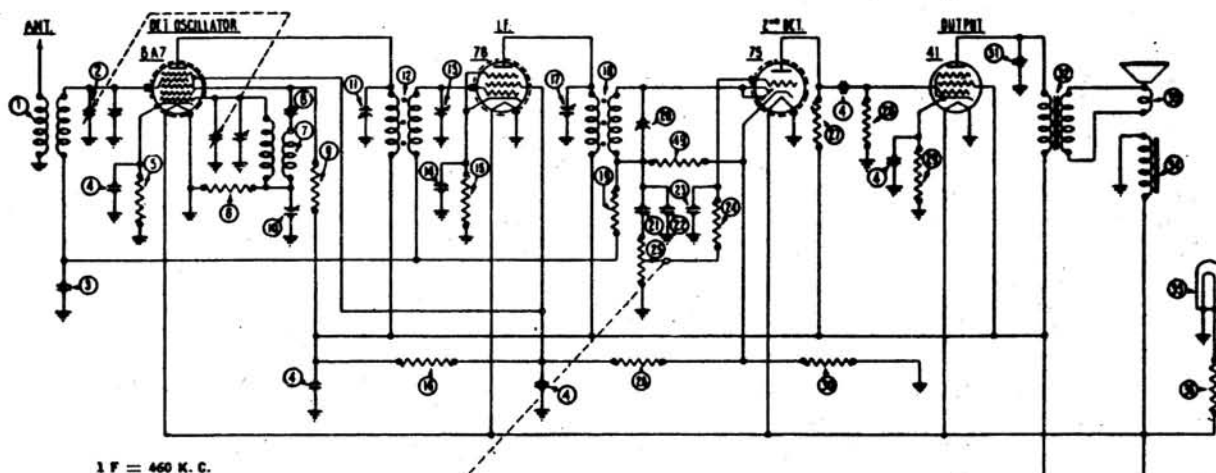
Waveband Switch Shown in Left-hand
(Standard Broadcast) Position.

No. on Figs.	Description	Part No.
1	Wave Trap.....	33-5199
2	Wave-band Switch.....	42-1066
3	Resistor (10,000 ohms) (Brown-Black-Orange).....	33-1000
4	Antenna Transformer.....	32-1412
5	Condenser (.000015 Mfd.).....	30-1030
6	Tuning Condenser Assembly.....	31-1231
7	Compensating Condenser (ANT).....	Part of 6
8	Resistor (200 ohms Flexible) (Red-Black-Brown).....	7217
9	Condenser (.05 Mfd. Tubular).....	30-4020
10	Resistor (50,000 ohms) (Green-Green-Orange).....	6098
11	Compensating Condenser (OSC. HF).....	Part of 4
12	Condenser (.003 Mfd. Mica).....	30-1022
13	Compensating Condenser (Osc. I. F.).....	04000-S
14	Condenser (.0008 Mfd. Mica).....	5378
15	Resistor (32,000 ohms) (Orange-Red-Orange).....	5279
16	Oscillator Transformer.....	32-1413
17	Compensating Condenser (1st I. F. Pri.).....	04000M
18	1st I. F. Transformer.....	32-1414
19	Compensating Condenser (1st I. F. Secondary).....	04000M
20	Resistor (400 ohms Flexible).....	33-3016
21	Condenser (.05 Mfd. Tubular).....	30-4020
22	Compensating Condenser (2d I. F. Primary).....	04000M
23	2d I. F. Transformer.....	32-1415
24	Compensating Condenser (2d I. F. Secondary).....	04000J
25	Resistor (50,000 ohms) (Green-Brown-Orange).....	6098
26	Condenser (.0001 Mfd. Twin Bakelite Block).....	8035-B
27	Condenser (.1 Mfd. Tubular).....	30-4170
28	Resistor (70,000 ohms) (Violet-Black-Orange).....	33-1115
29	Resistor (70,000 ohms) (Violet-Black-Orange).....	33-1115
30	Condenser (.00011 Mfd. Mica).....	30-1006
31	Condenser (.02 Mfd. Tubular).....	30-4113
32	Resistor (500,000 ohms) (Yellow-White-Yellow).....	6097
33	Tone Control.....	30-4192
34	Condensers in Tone Control.....	Inside 33

No. on Figs.	Description	Part No.
35	Output Transformer.....	32-7019
36	Voice Coil & Cone Assembly (8-12).....	36-3014
37	Field Coil and Pot. Assembly (8-12).....	36-3341
38	Resistor (2 Megohms) (Red-Black-Green).....	33-1025
39	Volume Control and On-Off Switch.....	33-5006
40	Condenser (.01 Mfd.) (Bakelite Block).....	3903-AB
41	Resistor (1 Megohm) (Brown-Black-Green).....	33-1096
42	Condenser (.1 Mfd.).....	30-4122
43	Resistor (.1 Meg.) (White-White-Orange).....	6099
44	Resistor (B. C. Wire-wound) (22, 235 ohms).....	33-3037
45	Resistor (.1 Meg.) (White-White-Orange).....	6099
46	Condenser (.05 Mfd. Tubular).....	30-4123
47	Resistor (37,000 ohms) (Orange-Violet-Orange).....	33-1098
48	Filter Choke.....	32-7018
49	Condenser (Electrolytic—6 Mfd.).....	30-2021
50	Condenser (Electrolytic—8-8 Mfd.).....	30-2028
51	Condenser (.09 Mfd. Bakelite Block).....	4989-D
52	Power Transformer.....	8046
53	Condenser (.015 Mfd. Bakelite Block).....	3793-W
54	Condenser (.05 Mfd. Tubular).....	30-4020
55	Dial Light.....	6608
	Four Prong Socket.....	7544
	Six Prong Socket.....	7547
	Seven Prong Socket.....	27-6006
	Tube Shield.....	28-1107
	Chassis Mounting Screw.....	W-567
	Chassis Mounting Washer (Metal).....	W-315
	Chassis Mounting Washer (Rubber).....	5189
	Knob (Large).....	27-4061
	Knob (Small).....	27-4052
	Dial Assembly.....	31-1234
	Dial Scale.....	27-5057
	A. C. Cord and Plug Assembly.....	L-943A

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

PHILCO AUTO RADIO MODEL 5



1 F = 460 K. C.

FILTER CONDENSER 30-4017

① on Figures 3 and 4

There are five sections in this filter condenser, all terminated with wire leads. The two green leads connect to the .1 mfd. section, which is used for coupling the plate output of the 78 tube to the grid of the 41 tube.

The remaining four sections are all grounded to the can on one side. The white leads connect to two .25 mfd. sections. The first section is connected to the cathode of the 6A7 tube. The second section is connected to the screen of the 78 tube.

The red lead from the .5 mfd. section is connected to the B+ side of all the plate circuits. A 20 mfd. section terminates in a black lead, which in turn is connected to the cathode of the 41 tube.

FILTER CONDENSER 30-2008

② on Figures 3 and 4

The condenser consists of two sections, a 4 mfd. section and an 8 mfd. section, both of them grounded on one side.

The 4 mfd. section terminates in a red lead, which is connected to the cathode of the 84 tube. The 8 mfd. section terminates in a green lead, which is connected between the two chokes in the rectifier filter circuit.

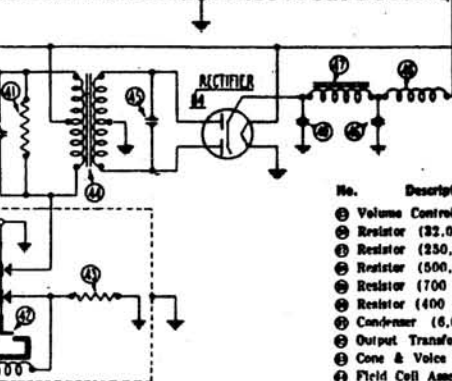
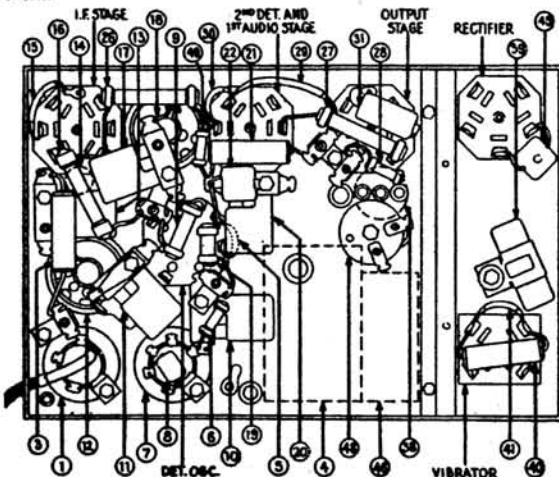


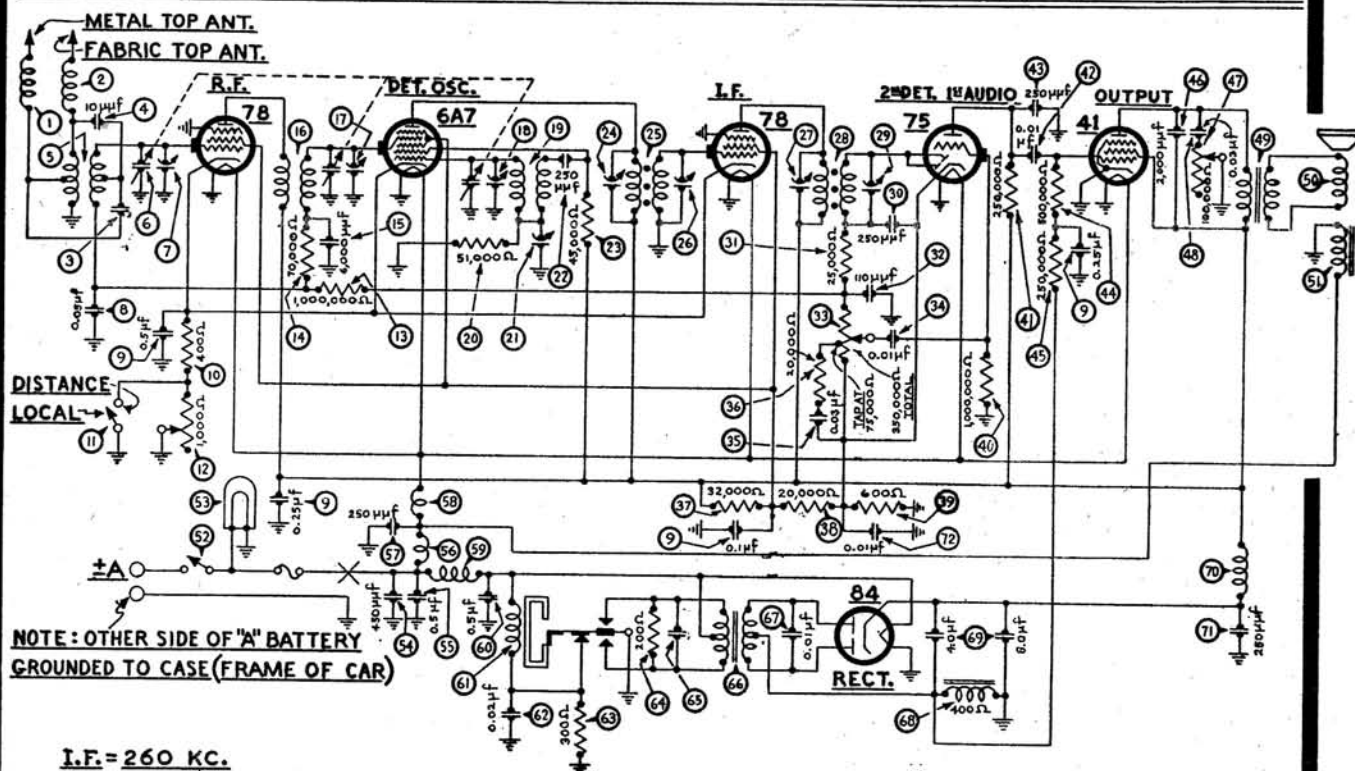
FIGURE 3

PARTS LIST

No.	Description	Part No.
1	Antenna Transformer	32-1084
2	Tuning Condenser	31-1019
3	Condenser (.05 mfd.)	30-4020
4	Filter Condenser	
	(.25, .25, .5, 20 mfd.)	30-4017
5	Resistor (200 ohms)	7217
6	Resistor (13,000 ohms)	8267
7	Oscillator Transformer	32-1085
8	Condenser (250 mfd.)	3082
9	Resistor (15,000 ohms)	8208
10	Padder	040008
11	Padder	04000J
12	First I. F. Transformer	32-1086
13	Padder	04000Y
14	Condenser (.5 mfd.)	30-4018
15	Resistor (1000 ohms)	32-3017
16	Resistor (10,000 ohms)	8412
17	Padder	04000D
18	Second I. F. Transformer	32-1087
19	Resistor (1,000,000 ohms)	4409
20	Padder	040003
21	Condenser (.05 mfd.)	30-4020
22	Condenser (250 mfd.)	3082
23	Condenser (500 mfd.)	3010
24	Resistor (100,000 ohms)	8090
25	Volume Control & Switch	32-5009
26	Resistor (32,000 ohms)	3335
27	Resistor (250,000 ohms)	3768
28	Resistor (500,000 ohms)	6097
29	Resistor (700 ohms)	6443
30	Resistor (400 ohms)	32-3016
31	Condenser (6,000 mfd.)	30-1002
32	Output Transformer	32-7006
33	Cone & Voice Coil	02881
34	Field Coil Assembly	32-3046
35	Pilot Lamp	6008
36	Resistor (7 ohms)	5110
37	Fuse (15 amp.)	7227
38	R. F. Choke	32-1083
39	Condenser (.5 mfd.)	30-4015
40	Condenser (.05 mfd.)	30-4020
41	Resistor (200 ohms)	7217
42	Vibrator	41-3196
43	Resistor (200 ohms)	7217
44	Transformer	32-7030
45	Condenser (6000 mfd.)	30-1002
46	Condenser (4 mfd., 8 mfd.)	30-3008
47	Filter Choke	32-7028
48	R. F. Choke (high voltage)	32-1078
49	Resistor (250,000 ohms)	4410
50	Control Assembly	
	(direct drive)	42-6008
51	Tuning Shaft	28-8006
52	Volume Shaft	28-8007
53	Dial	27-5006
54	Knob	03324
55	Fuse	7227
56	Fuse Insulator	27-7131
57	Antenna Lead	32-5131
58	"A" Lead	32-5296
59	Bracket (control mtg.)	6035
60	Stud (not mtg.)	28-8036
61	Plate (not mtg.)	W55A
62	Strap (control mtg.)	04344

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

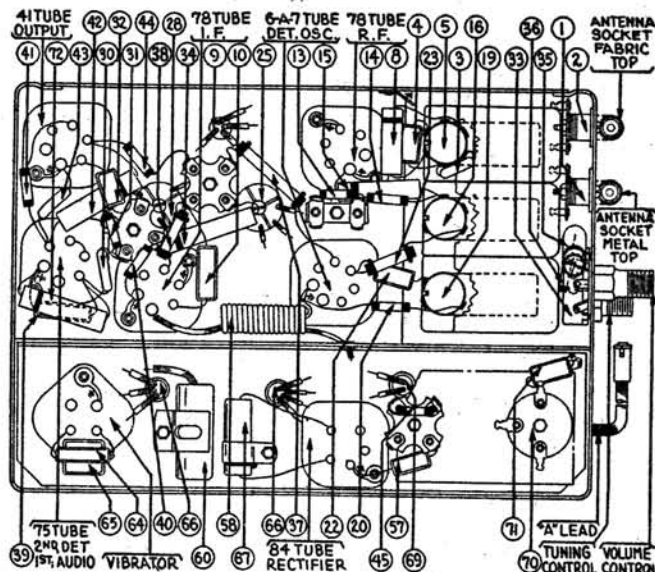
PHILCO AUTO RADIO MODEL T11



I.F. = 260 KC.

PARTS LIST

No.	Description	Part No.	No.	Description	Part No.
1	Antenna Choke	38-7210	41	Output Transformer	30-1068
2	Antenna Choke	38-7210	42	Cone & Voice Coil	32-1025
3	Condenser (70 mmfd.)	30-1068	43	Field Coil Assembly	31-1674
4	Condenser (10 mmfd.)	30-1065	44	On & Off Switch	30-4444
5	Antenna Transformer	32-1025	45	Pilot Lamp	30-4374
6	Tuning Condenser	31-1674	46	Condenser (.05 mfd.)	30-4444
7	First Padder (on Tun. Cond.)	30-4444	47	Condenser	30-4374
8	Condenser (.05 mfd.)	30-4444	48	Resistor (400 ohms)	33-1211
9	Condenser	30-4374	49	Sensitivity Control Switch	42-1140
10	Resistor (250,000 ohms)	33-5129	50	Sensitivity Control	33-5129
11	Resistor (1,000,000 ohms)	33-510344	51	Resistor (1,000,000 ohms)	33-510344
12	Resistor (70,000 ohms)	33-370334	52	Condenser (6,000 mmfd.)	30-4445
13	Condenser (6,000 mmfd.)	30-4445	53	R. F. Transformer	32-1926
14	R. F. Transformer	32-1926	54	Second Padder (on Tun. Cond.)	30-4444
15	Second Padder (on Tun. Cond.)	30-4444	55	Third Padder (on Tun. Cond.)	30-4444
16	Third Padder (on Tun. Cond.)	30-4444	56	Oscillator Transformer	32-1927
17	Oscillator Transformer	32-1927	57	Resistor (51,000 ohms)	33-351344
18	Resistor (51,000 ohms)	33-351344	58	Low Frequency Padder	31-6056
19	Low Frequency Padder	31-6056	59	Condenser (250 mmfd.)	30-1032
20	Condenser (250 mmfd.)	30-1032	60	Resistor (45,000 ohms)	33-345344
21	Resistor (45,000 ohms)	33-345344	61	Padder (Pri. 1st I. F. Trans.)	30-1260
22	Padder (Pri. 1st I. F. Trans.)	30-1260	62	First I. F. Transformer	32-1260
23	First I. F. Transformer	32-1260	63	Padder (Sec. 1st I. F. Trans.)	30-1260
24	Padder (Sec. 1st I. F. Trans.)	30-1260	64	Padder (Pri. 2nd I. F. Trans.)	30-1264
25	Padder (Pri. 2nd I. F. Trans.)	30-1264	65	Second I. F. Transformer	32-2164
26	Second I. F. Transformer	32-2164	66	Padder (Sec. 2nd I. F. Trans.)	30-1032
27	Padder (Sec. 2nd I. F. Trans.)	30-1032	67	Condenser (250 mmfd.)	30-1032
28	Condenser (250 mmfd.)	30-1032	68	Resistor (25,000 ohms)	33-325344
29	Resistor (25,000 ohms)	33-325344	69	Condenser (110 mmfd.)	30-1031
30	Condenser (110 mmfd.)	30-1031	70	Volume Control	33-5121
31	Volume Control	33-5121	71	Condenser (.01 mfd.)	30-4124
32	Condenser (.01 mfd.)	30-4124	72	Condenser (.03 mfd.)	30-4449
33	Condenser (.03 mfd.)	30-4449	73	Resistor (20,000 ohms)	33-320334
34	Resistor (20,000 ohms)	33-320334	74	Resistor (32,000 ohms)	33-332334
35	Resistor (32,000 ohms)	33-332334	75	Resistor (20,000 ohms)	33-320334
36	Resistor (20,000 ohms)	33-320334	76	Resistor (600 ohms)	33-1212
37	Resistor (600 ohms)	33-1212	77	Resistor (1,000,000 ohms)	33-510344
38	Resistor (1,000,000 ohms)	33-510344	78	Resistor (250,000 ohms)	33-424344
39	Resistor (250,000 ohms)	33-424344	79	Condenser (.01 mfd.)	30-4145
40	Condenser (.01 mfd.)	30-4145	80	Condenser (250 mmfd.)	30-1032
41	Condenser (250 mmfd.)	30-1032	81	Resistor (500,000 ohms)	33-440344
42	Resistor (500,000 ohms)	33-440344	82	Resistor (250,000 ohms)	33-424344
43	Resistor (250,000 ohms)	33-424344	83	Condenser (2,000 mmfd.)	30-4177
44	Condenser (2,000 mmfd.)	30-4177			



CHANGES — "Run Numbers" are stamped on the chassis sub-base for identification. These "Run Numbers" are changed consecutively as major changes are made in the Receiver wiring and parts.

RUN No. 3 — A 250 mmfd. condenser has been added to the Receiver. One side is connected between resistors 20 and 21 and the other side to ground.

RUN No. 4 — The 250 mmfd. condenser added in Run No. 3 has been removed.

RUN No. 5 — The Antenna Transformer 5 is replaced with a new type having the same part number. It can be identified by the red and blue paint marks on the frame.

RUN No. 6 — Condenser 11 has been removed from the cathode side of the "B" choke 10 and connected to the plate side of choke 10.

RUN No. 6A — A 250 mmfd. condenser has been added to the Receiver. One side is connected between resistors 44 and 45 and the other side to ground.

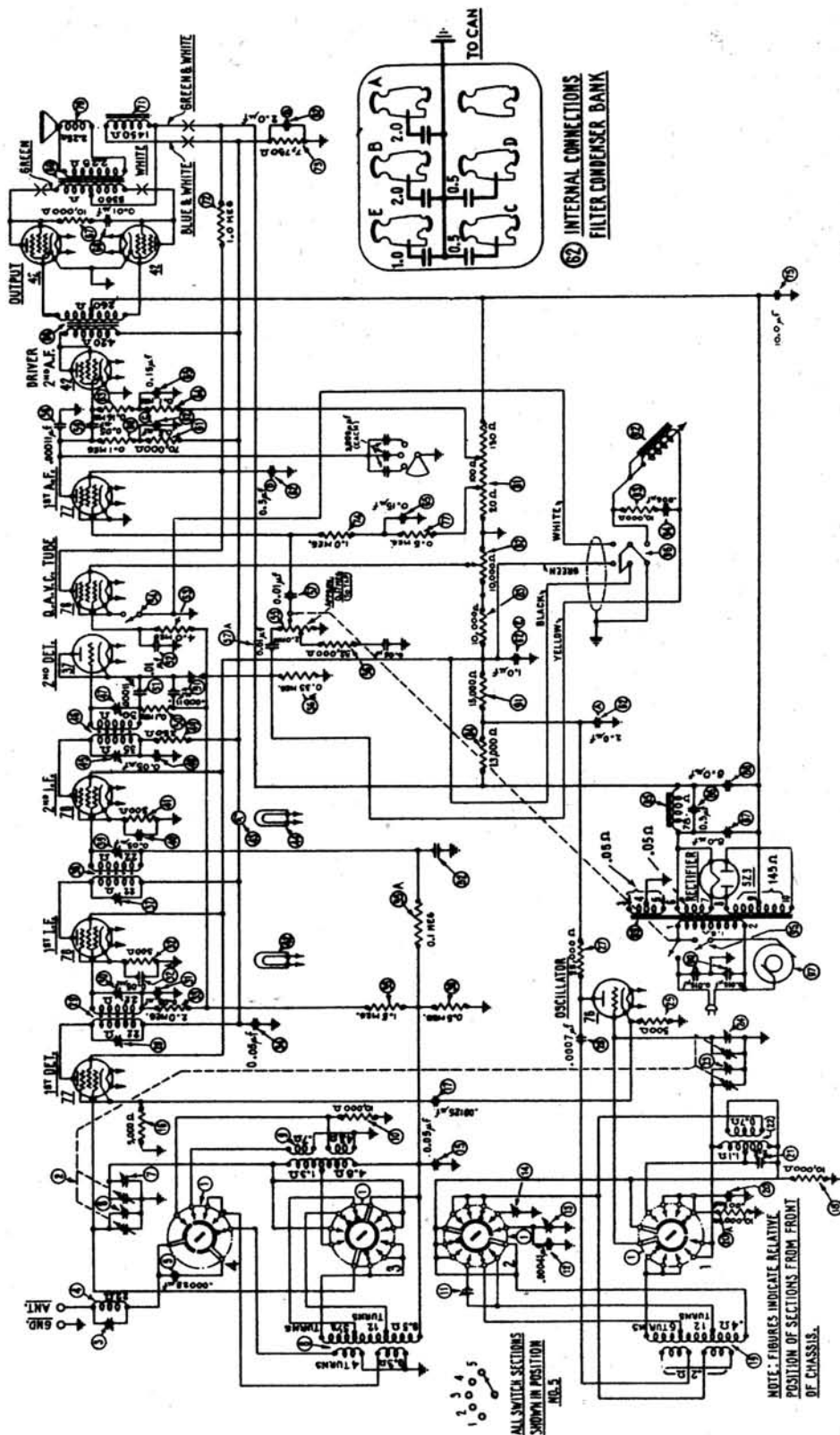
RUN No. 8 — Condenser 8 removed (1250 mmfd.). Part No. 30-4020 added. (.05 mfd.)

RUN No. 13 — The 250 mmfd. condenser that was added in Run No. 6A has been removed.

RUN No. 14 — Resistor 10 removed (400 ohms). Part No. 33-1225 added. (350 ohms.)

No major changes were involved in Run Nos. 2, 7, 9, 10, 11, 12.

MODEL 16

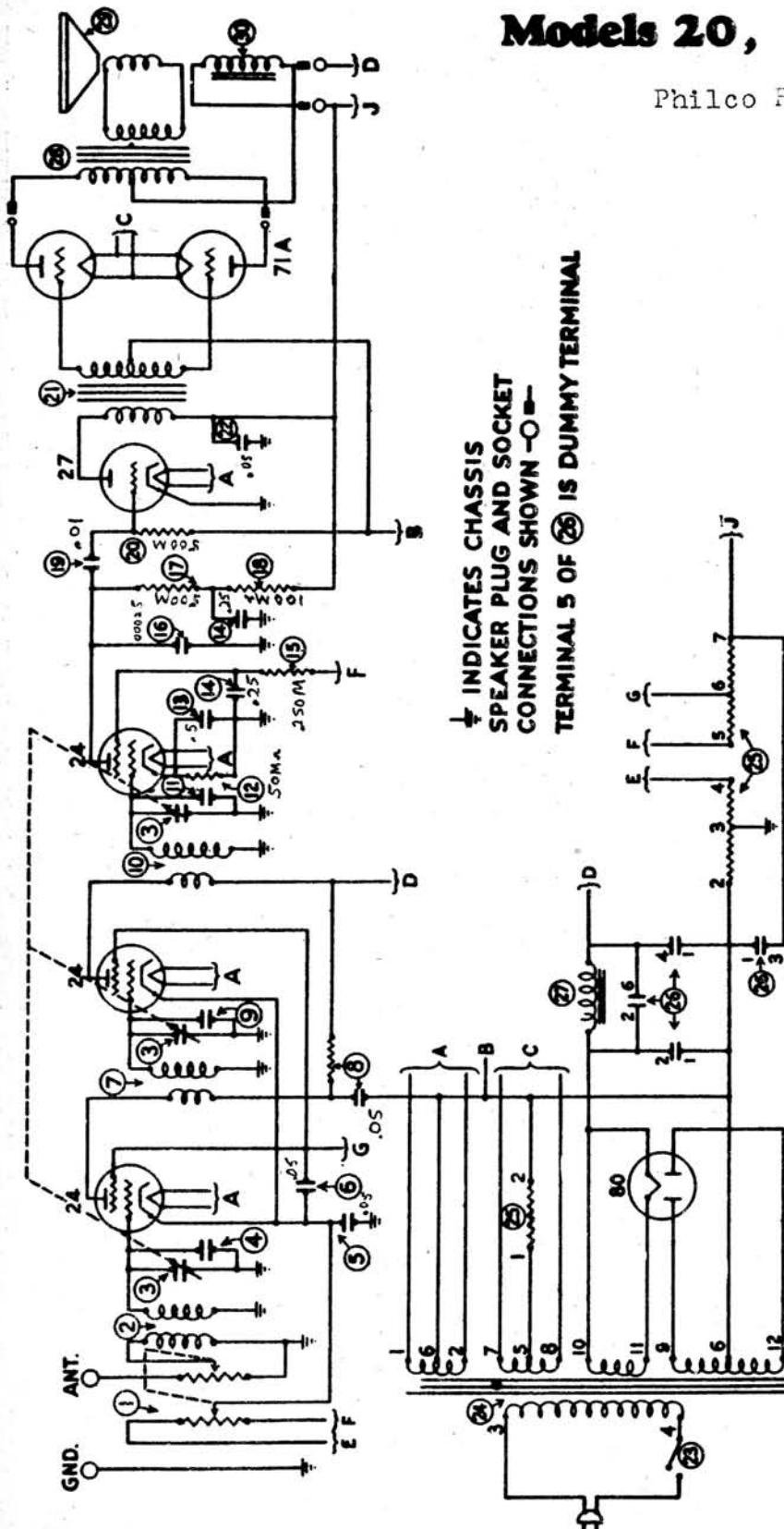


Philco Model 16
I.F. 460 KC.

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

Models 20, 20-A and 21

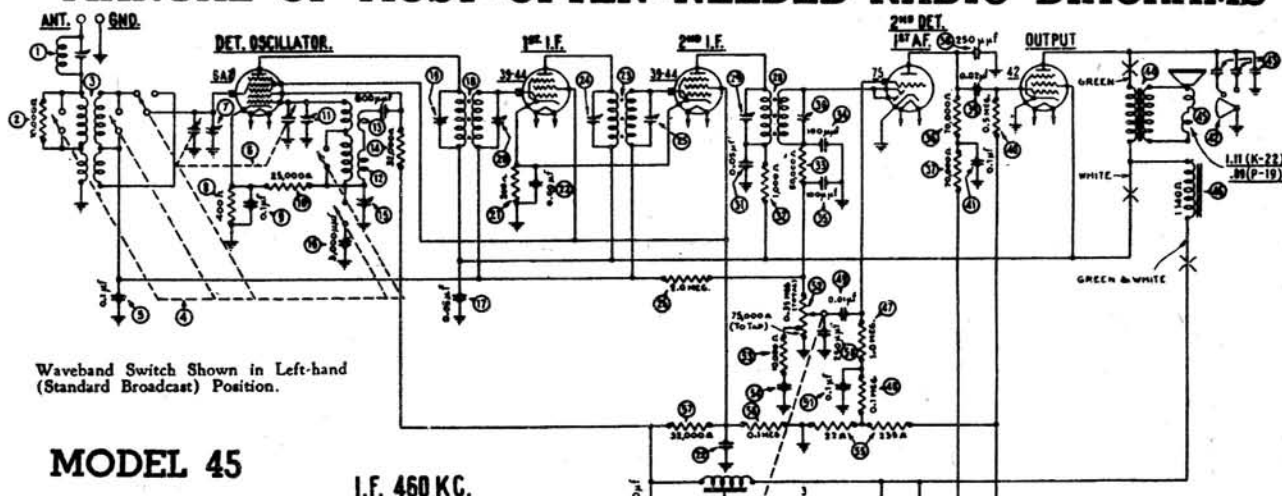
Philco Radio



↑ INDICATES CHASSIS
SPEAKER PLUG AND SOCKET
CONNECTIONS SHOWN - O -
TERMINAL 5 OF 24 IS DUMMY TERMINAL

No.	Description	Part No.
①	Volume Control	4094
②	First R. F. Transformer	3894-N
③	Tuning Condenser	4200-A
④	First Compensating Condenser (Part of Tuning Condenser Assembly)	
⑤	By-Pass Condenser (.05)	3615-J
⑥	By-Pass Condenser (.05)	3615-M
⑦	Second R. F. Transformer	3894-P
⑧	By-Pass Condenser (.05) and Resistor	3615-K
⑨	Second Compensating Condenser (Part of Tuning Condenser Assembly)	
⑩	Third R. F. Transformer	3894-P
⑪	Third Compensating Condenser (Part of Tuning Condenser Assembly)	
⑫	Resistor (50,000)	4237
⑬	By-Pass Condenser (.5)	3583
⑭	By-Pass Condenser (double .25)	3587
⑮	Resistor (250,000)	3768
⑯	By-Pass Condenser (.00025)	3082
⑰	Resistor (500,000)	3769
⑱	Resistor (100,000)	3767
⑲	Condenser (.01)	3903-F
⑳	Resistor (500,000)	3769
㉑	Push-pull Input Transformer	4232
㉒	By-Pass Condenser (.05)	3615-L
㉓	On-off Switch	4095
㉔	Power Transformer (50-60 cycle)	4234
㉕	Power Transformer (25-60 cycle)	4268
㉖	B. C. Resistor	4230
㉗	Filter Condenser (50-60 cycle)	4235
㉘	Filter Condenser (25-60 cycle)	4269
㉙	Filter Choke	4231
㉚	Push-Pull Output Transformer	2766-B
㉛	Voice Coil and Cone	2768
㉜	Field Coil	2768

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



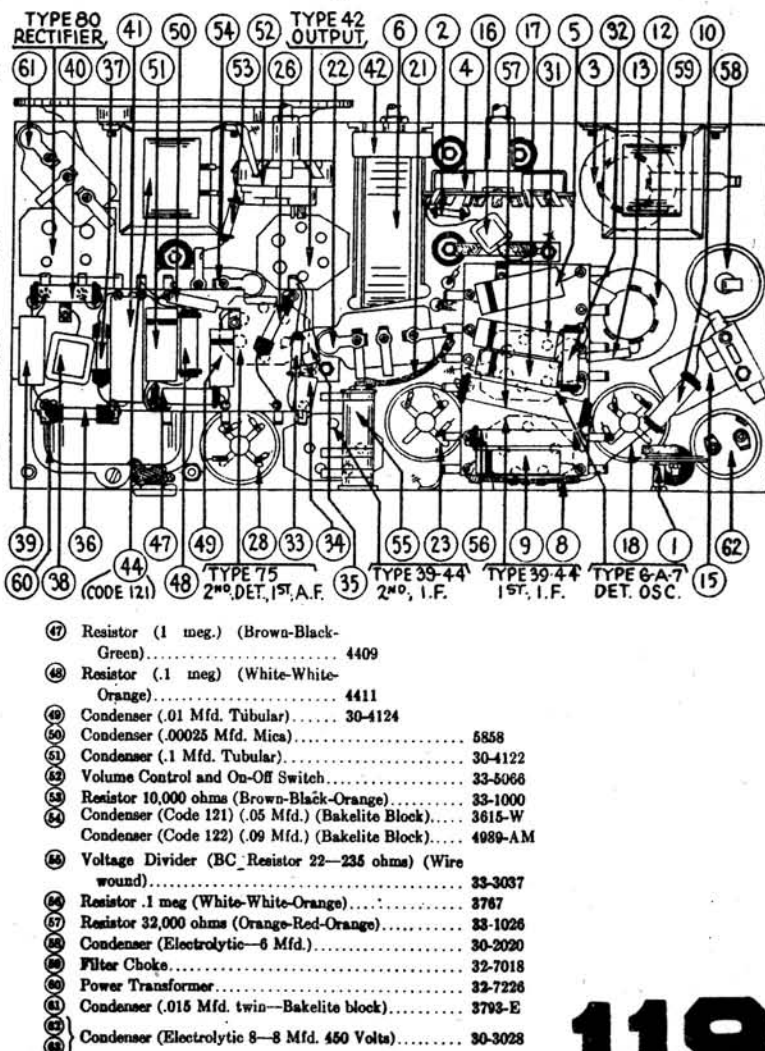
MODEL 45

I.F. 450 KC.

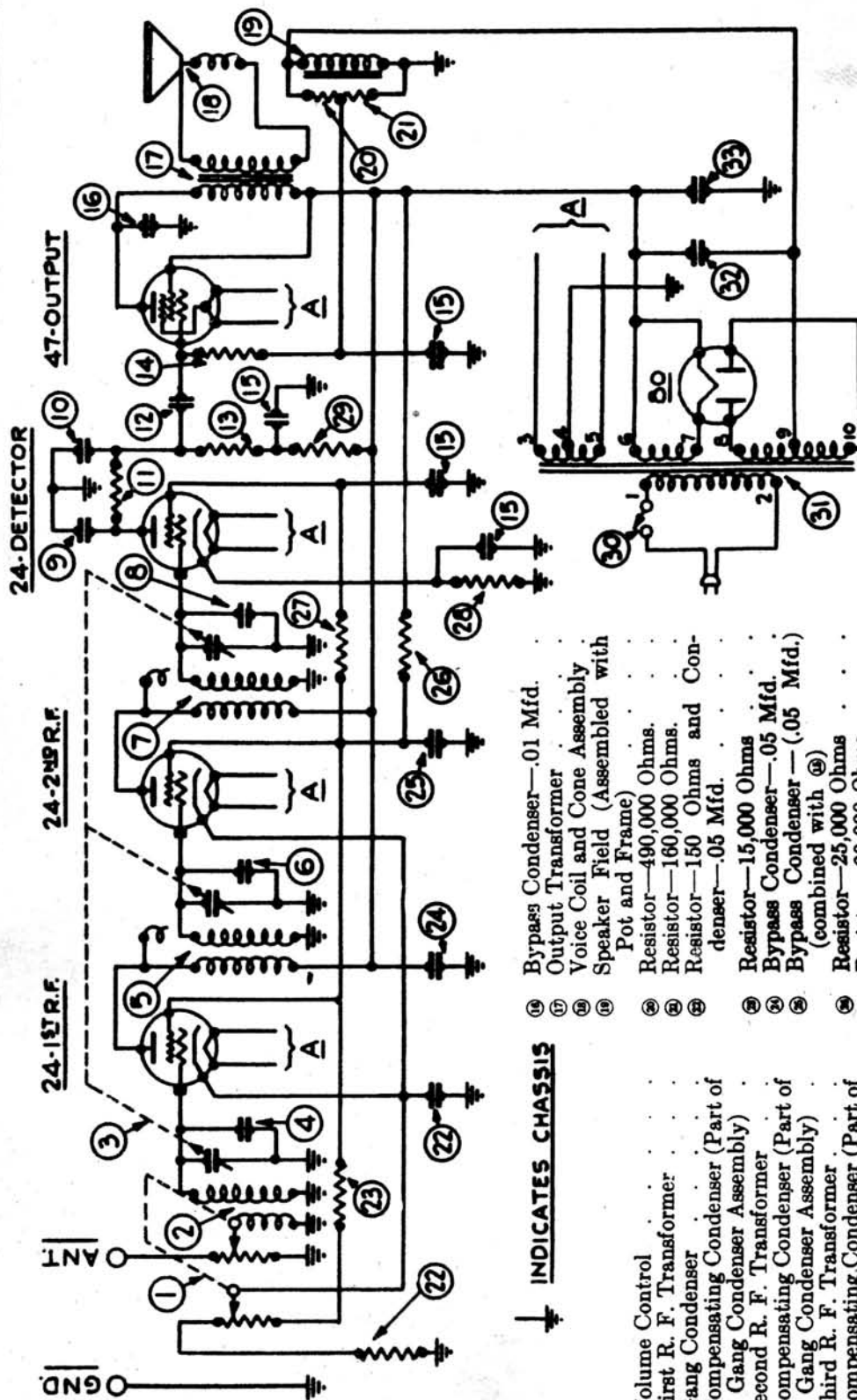
No. on Figs.	Description	Part No.
1	Wave Trap.....	38-5199
2	Resistor (10,000 ohms) (Brown-Black-Orange).....	4412
3	Antenna Transformer.....	32-1360
4	Wave Band Switch.....	42-1062
5	Condenser (.1 Mfd.) (Tubular).....	30-4122
6	Tuning Condenser Assembly.....	31-1169
7	Compensating Condenser (Det.).....	Part of 6
8	Resistor (400 ohms—Flexible wire wound).....	33-3016
9	Condenser (.1 Mfd.) (Tubular).....	30-4122
10	Resistor (25,000 ohms) (Red-Green-Orange).....	4516
11	Compensating Condenser (Osc. H. F.).....	Part of 6
12	Oscillator Transformer.....	32-1361
13	Condenser (.0008 Mfd.—Mica).....	5878
14	Resistor (32,000 ohms) (Orange-Red-Orange).....	3525
15	Compensating Condenser (Osc. L. F.).....	04000-S
16	Condenser (.003 Mfd.—Mica).....	7301
17	Condenser (.06 Mfd.—Tubular).....	30-4123
18	1st I. F. Transformer.....	32-1363
19	Compensating Condenser (1st I. F. Primary).....	Part of 18
20	Compensating Condenser (1st I. F. Secondary).....	Part of 18
21	Resistor (500 ohms—Flexible wire wound).....	6977
22	Condenser (.09 Mfd. twin) (Bakelite block).....	4989-Z
23	2d I. F. Transformer.....	32-1363
24	Compensating Condenser (2d I. F. Primary).....	Part of 23
25	Compensating Condenser (2d I. F. Secondary).....	Part of 23
26	Resistor (2 mega.) (Red-Black-Green).....	5872
27	Pilot Lamp.....	6608
28	3d I. F. Transformer.....	32-1364
29	Compensating Condenser—3d I. F. Primary.....	Part of 28
30	Compensating Condenser—3d I. F. Secondary.....	Part of 28
31	Condenser (.06 Mfd. Tubular).....	30-4123
32	Resistor (1,000 ohms) (Brown-Black-Red).....	5837
33	Resistor (50,000 ohms) (Green - Brown-Orange).....	4518
34	Condenser (.0001 Mfd. Mica).....	30-1031
35	Condenser (.0001 Mfd. Mica).....	30-1031
36	Resistor (70,000 ohms) (Violet-Black-Orange).....	5385
37	Resistor (70,000 ohms) (Violet-Black-Orange).....	5385
38	Condenser (.00025 Mfd. Mica).....	5858
39	Condenser (.02 Mfd. Tubular).....	30-4113
40	Resistor (.5 meg.) (Yellow-White-Yellow).....	4517
41	Condenser (.1 Mfd.) (Tubular).....	30-4170
42	Tone Control.....	30-4178
43	Condensers.....	Inside 42
44	Output Transformer (Code 121).....	32-7041
45	Output Transformer (Code 122).....	2580
46	Voice Coil & Cone Assembly P-19 (Compact).....	36-3027
47	K-22 (Lowboy).....	36-3174
48	Field Coil and Pot Assembly P-19 (Compact).....	36-3298
49	K-22 (Lowboy).....	02767

Philco

Note: Resistor 29 is 500 ohms in current production.



MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



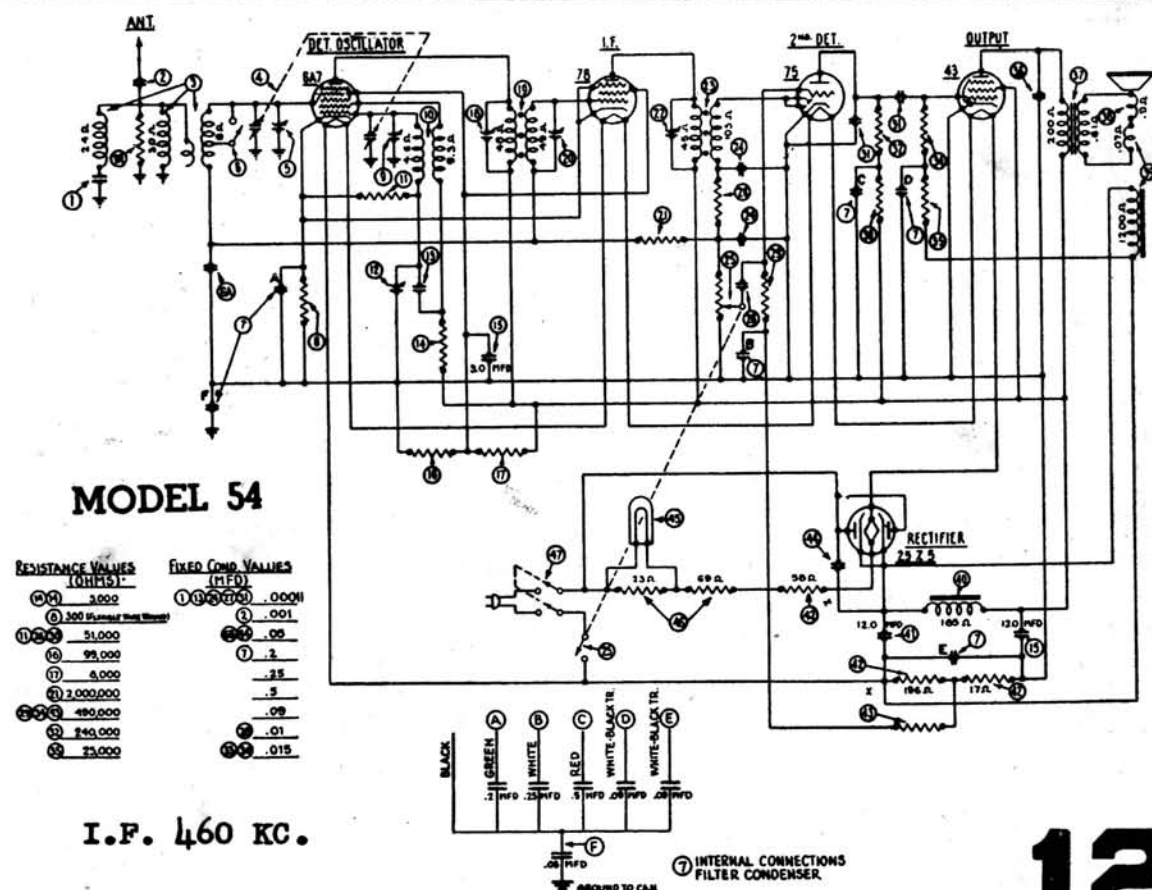
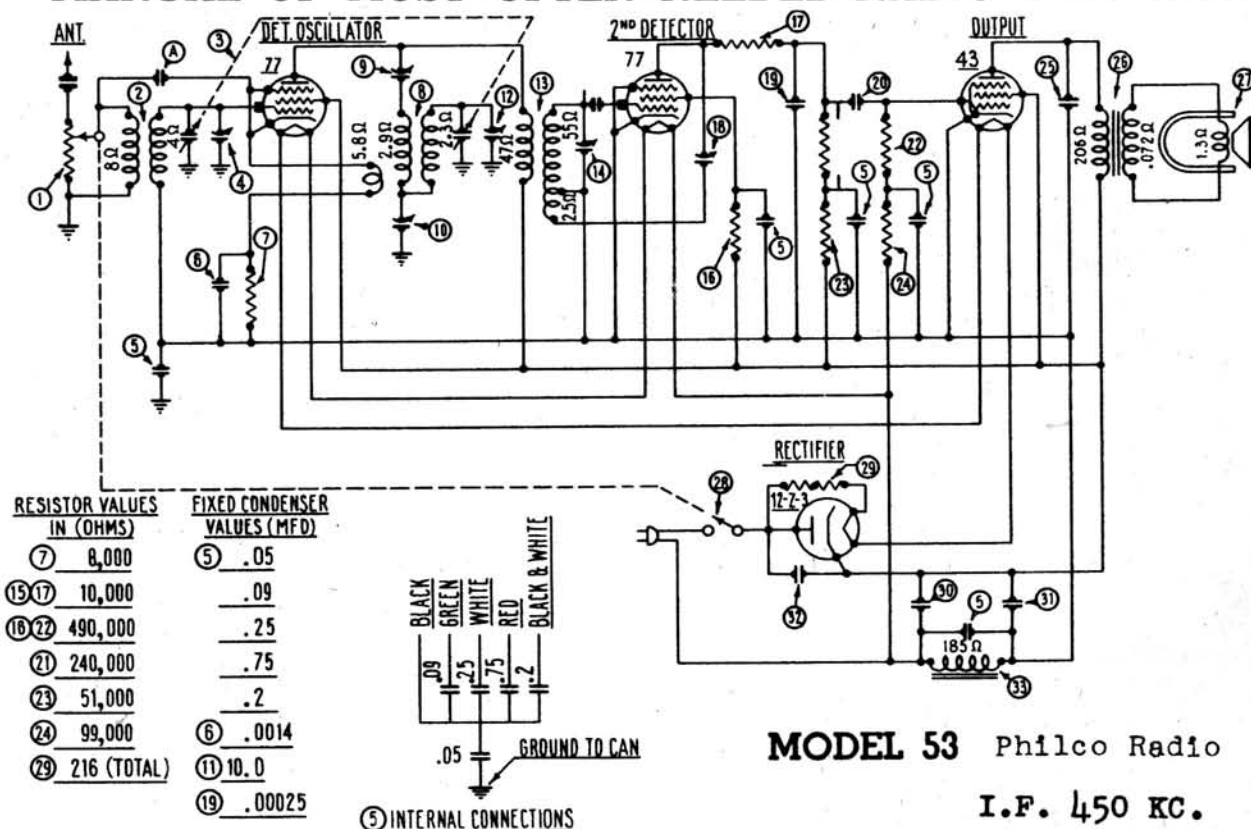
INDICATES CHASSIS

- | | |
|---|---|
| ① Volume Control | ② Bypass Condenser—.01 Mfd. |
| ② First R. F. Transformer | ③ Output Transformer |
| ③ Gang Condenser | ④ Voice Coil and Cone Assembly |
| ④ Compensating Condenser (Part of Gang Condenser Assembly) | ⑤ Speaker Field (Assembled with Pot and Frame) |
| ⑤ Second R. F. Transformer | ⑥ Resistor—490,000 Ohms. |
| ⑥ Compensating Condenser (Part of Gang Condenser Assembly) | ⑦ Resistor—160,000 Ohms. |
| ⑦ Third R. F. Transformer | ⑧ Resistor—150 Ohms and Condenser—.05 Mfd. |
| ⑧ Compensating Condenser (Part of Gang Condenser Assembly) | ⑨ Resistor—15,000 Ohms |
| ⑨ Condenser—250 Mmf. | ⑩ Bypass Condenser—.05 Mfd. |
| ⑩ Condenser—250 Mmf. | ⑪ Bypass Condenser—(.05 Mfd.) (combined with ⑩) |
| ⑪ Resistor—10,000 Ohms | ⑫ Resistor—25,000 Ohms |
| ⑫ Condenser—.01 Mfd. | ⑬ Resistor—99,000 Ohms |
| ⑬ Resistor—240,000 Ohms | ⑭ Resistor—32,000 Ohms |
| ⑭ Resistor—490,000 Ohms | ⑮ Resistor—99,000 Ohms |
| ⑮ Bypass Condenser (.15 Mfd., 25 Mfd., 2-5 Mfd., 1 Mfd.) 50-80 cycles | ⑯ On-Off Switch |
| | ⑰ Power Transformer—50-80 cycles |
| | ⑱ Electrolytic Condenser—6 Mfd.—50-60 cycles |
| | ⑲ Electrolytic Condenser—10 Mfd.—25-40 cycles |
| | ⑳ Electrolytic Condenser—6 Mfd.— |

Philco Radio

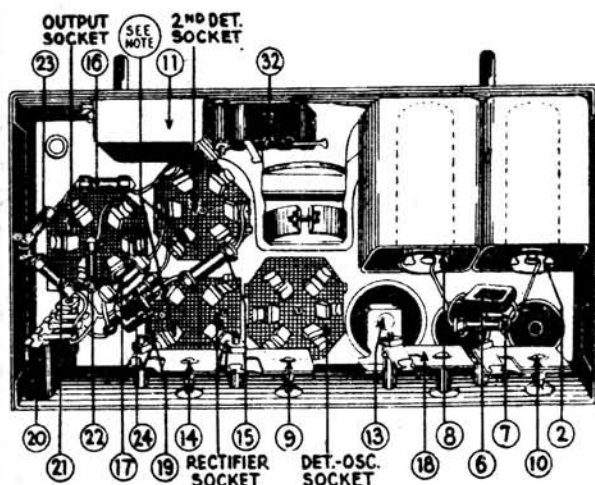
MODELS 50 AND 50-A

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

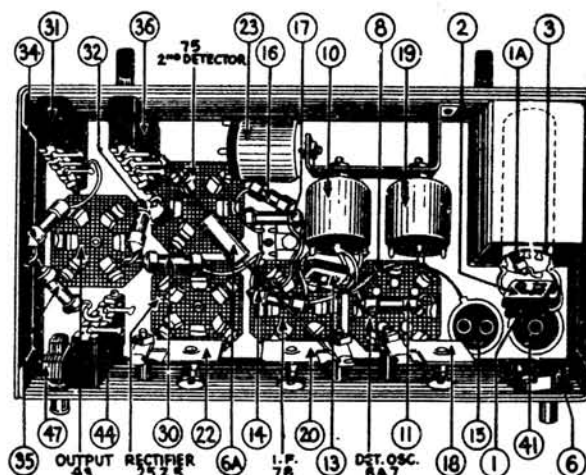
Model 53



No. on Figs. 2, 3 and 4	Description	Part No.
1	Volume Control	33-5001
2	Antenna Transformer	32-1000
3	Tuning Condenser Assembly	31-1000
4	Compensating Condenser (Part of Tuning Condenser Assembly)	
5	Filter Condenser Block (.05-.09-.25-.75-2 Mfd.)	30-4000
6	Condenser (.0014 Mfd.)	7007
7	Resistor (8,000 ohms) Gray-Black-Red	5838
8	Oscillator Transformer	32-1001
9	Compensating Condenser (I.F. Primary)	04000-A
10	Compensating Cond. (Low Frequency)	04000-S
11	Condenser (10.0 Mfd.)	7440
12	Compensating Condenser (Part of Tuning Condenser Assembly)	
13	I.F. Transformer	32-1002
14	Compensating Cond. (I.F. Secondary)	04000-A
15	Resistor (10,000 ohms) Brown-Black-Orange	4412
16	Resistor (490,000 ohms) Yellow-White-Yellow	4517
17	Resistor (10,000 ohms) Brown-Black-Orange	4412
18	Compensating Condenser (Regeneration)	04000
19	Condenser (.00025 Mfd.)	3082
20	Condenser (.01 Mfd.)	3903-AM
21	Resistor (240,000 ohms) Red-Yellow-Yellow	4410
22	Resistor (490,000 ohms) Yellow-White-Yellow	4517
23	Resistor (51,000 ohms) Green-Brown-Orange	4518
24	Resistor (99,000 ohms) White-White-Orange	4411
25	Condenser (.015 Mfd.)	3793-S
26	Output Transformer	32-7000
27	Voice Coil and Cone Assembly	36-3000
28	A. C. Switch (Part of Volume Control Assembly)	33-5001
29	Resistors (2 Wire Wound-108 ohms each)	33-3000
30	Electrolytic Condenser (8 Mfd.)	30-2000
31	Electrolytic Condenser (8 Mfd.)	30-2000
32	Condenser (.05 Mfd.)	3615-E
33	Filter Choke	32-7001
34	Tube Shield	7172
35	Knobs (Both Controls)	03064
36	Four Prong Socket	7544

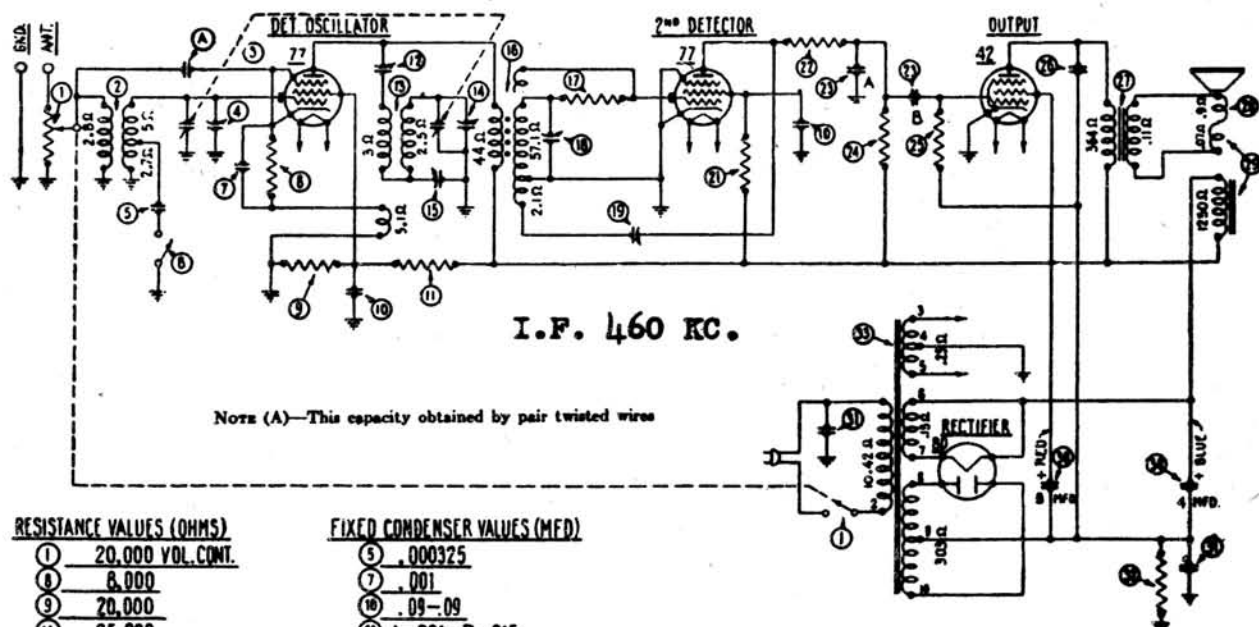
Model 54

(A. C. — D. C.)



No. on Figs.	Description	Part No.
1	Condenser	30-1005
1a	Resistor (Green-Black-Red)	6096
2	Condenser	5215
3	Antenna Transformer Assembly	32-1117
4	Tuning Condenser Assembly	31-1027
5	Compensating Condenser (Part of 4)	
6	Wave Band Switch	42-1027
6a	Condenser	30-4020
7	Filter Condenser (Block)	30-4023
8	Resistor (Flexible)	33-3010
9	Compensating Condenser (High Frequency 1400) Part of 4	
10	Oscillator Coil	32-1118
11	Resistor (Green-Brown-Orange)	4518
12	Compensating Condenser (Low Freq.)	04000-B
13	Condenser	4519
14	Resistor (Green-Black-Red)	5310
15	Electrolytic Condenser (Double)	30-2002
16	Resistor (White-White-Orange)	4411
17	Resistor (Gray-Black-Red)	5838
18	Compensating Cond. (1st I. F. Primary)	04000-A
19	1st I. F. Transformer	32-1115
20	Compensating Condenser (1st I. F. Secondary)	04000-A
21	Resistor (Red-Black-Green)	5872
22	Compensating Cond. (2nd I. F. Primary)	04000-A
23	2nd I. F. Transformer	32-1116
24	Condenser (Double)	8035-G
25	Volume Control and "On-Off" Switch	33-5010
26	Resistor (Green-Brown-Orange)	4518
27	Condenser	3903-AM
28	Resistor (Yellow-White-Yellow)	6097
29	Resistor (Green-Brown-Orange)	4518
30	Condenser (Double)	8035-F
31	Resistor (Red-Yellow-Yellow)	4410
32	Resistor (Yellow-White-Yellow)	4517
33	Resistor (Red-Green-Orange)	4516
34	Condenser	3793-Y
35	Output Transformer	32-7020
36	Voice Coil and Cone Assembly	36-3029
37	Field Coil and Pot Assembly	36-3040
38	Filter Choke	32-7036
39	Electrolytic Condenser	30-2001
40	Resistor (Wire Wound)	33-3012
41	Resistor (Yellow-White-Yellow)	6097
42	Condenser	3615-B
43	Pilot Lamp	4567
44	Resistor (Wire Wound)	33-3011
45	Safety Switch	42-1026
46	Tube Shield	28-1130
47	Six Prong Socket	7547
	Seven Prong Socket	27-6005

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



RESISTANCE VALUES (OHMS)

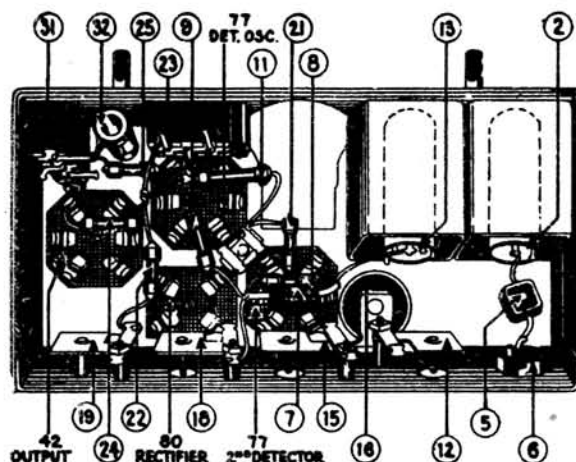
1	20,000 VOL. CONT.
8	8,000
9	20,000
11	25,000
17	400,000
21	1,000,000
22	10,000
24	240,000
25	490,000
32	32.5 (WIRE WOUND)

FIXED CONDENSER VALUES (MFD)

5	.000325
7	.001
18	.09-.09
23	A-.001-B-.015
26	.006
31	.015-.015

PHILCO

MODEL 57

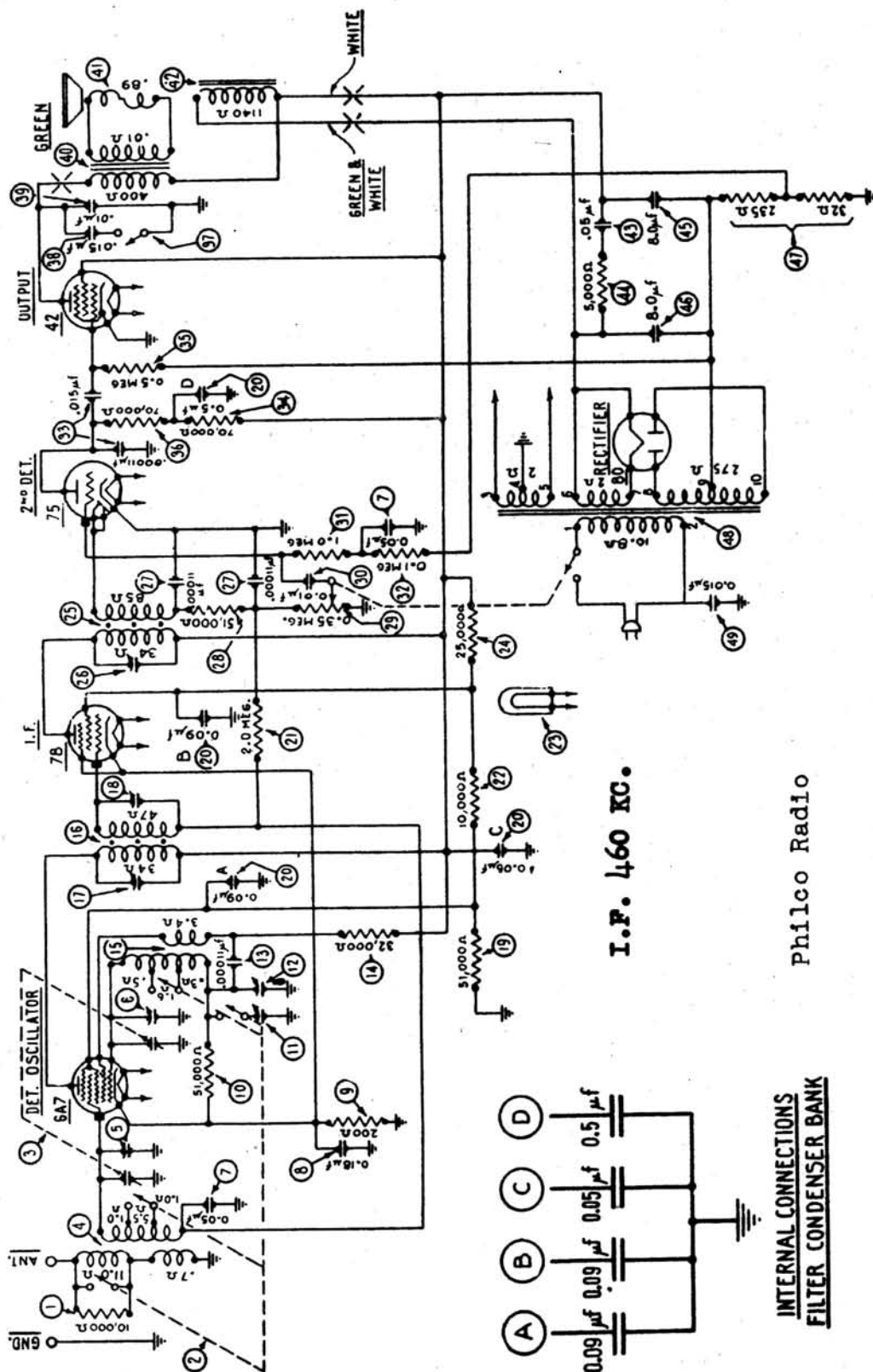


No. on Figs.	Description	Part No.
1	Volume Control and "On-Off" Switch	33-5011
2	Antenna Transformer	32-1153
3	Tuning Condenser Assembly	31-1035
4	Compensating Condenser (Antenna; Part of 3)	
5	Condenser	30-1004
6	Wave Band Switch	42-1027
7	Condenser	5215
8	Resistor (Gray-Black-Red)	5838
9	Resistor (Red-Black-Orange)	6650
10	Condenser (Double)	4989-C
11	Resistor (Red-Green-Orange)	3656
12	Compensating Condenser (I. F. Primary)	04000-A
13	Oscillator Coil	32-1023
14	Compensating Cond. (High Frequency—1400 kilocycles) (Part of 3)	
15	Compensating Cond. (Low Frequency)	04000-S
16	I. F. Transformer	32-1155
17	Resistor (Yellow-Black-Green)	6010

No. on Figs.	Description	Part No.
18	Compensating Cond. (I. F. Secondary)	04000-D
19	Compensating Condenser	04000
20	Resistor (Brown-Black-Green)	4409
21	Resistor (Brown-Black-Orange)	4412
22	Condenser (Double)	7762-B
23	Resistor (Red-Yellow-Yellow)	4410
24	Resistor (Yellow-White-Yellow)	3769
25	Condenser	7625-E
26	Output Transformer	32-7041
27	Voice Coil and Cone Assembly	36-3029
28	Field Coil and Pot Assembly	36-3081
29	Electrolytic Condenser (Double)	30-2004
30	Condenser (Double)	3793-R
31	Resistor (Wire Wound)	7465
32	Power Transformer	32-7046
	Tube Shield	28-1107
	Four Prong Socket	7544
	Six Prong Socket	7547

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

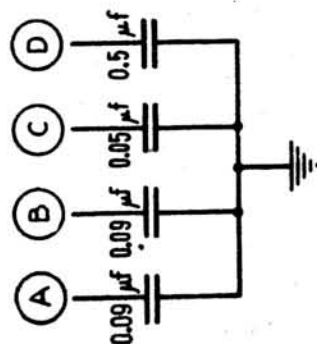
Model 60



I.F. 460 KC.

Philco Radio

INTERNAL CONNECTIONS
FILTER CONDENSER BANK



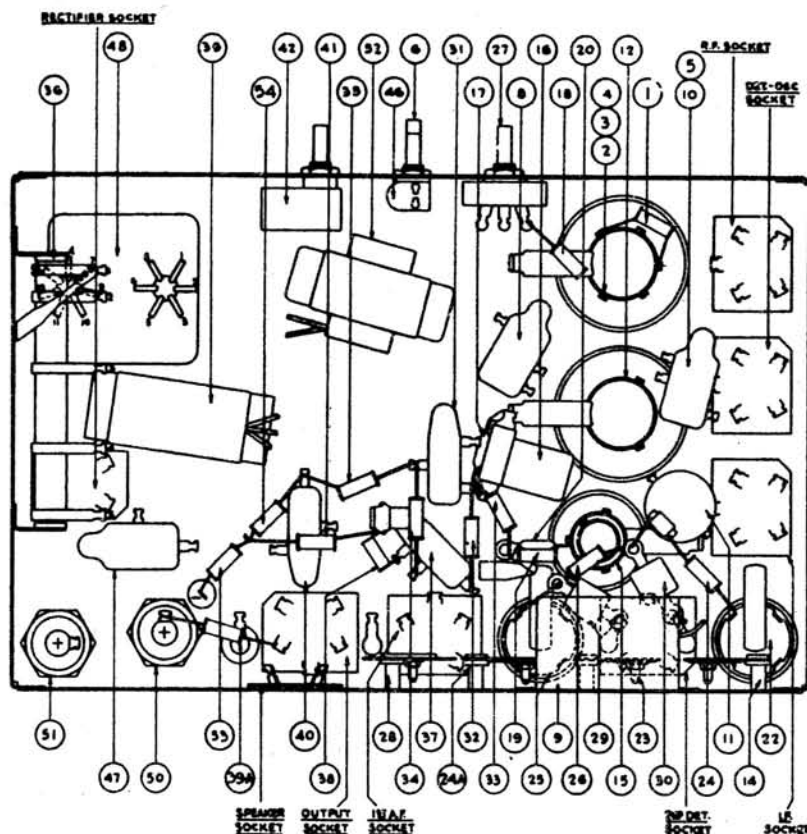
MODELS 70 AND 70-A



SPEAKER PLUG AND SOCKET CONNECTIONS SHOWN —

Philco Radio

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



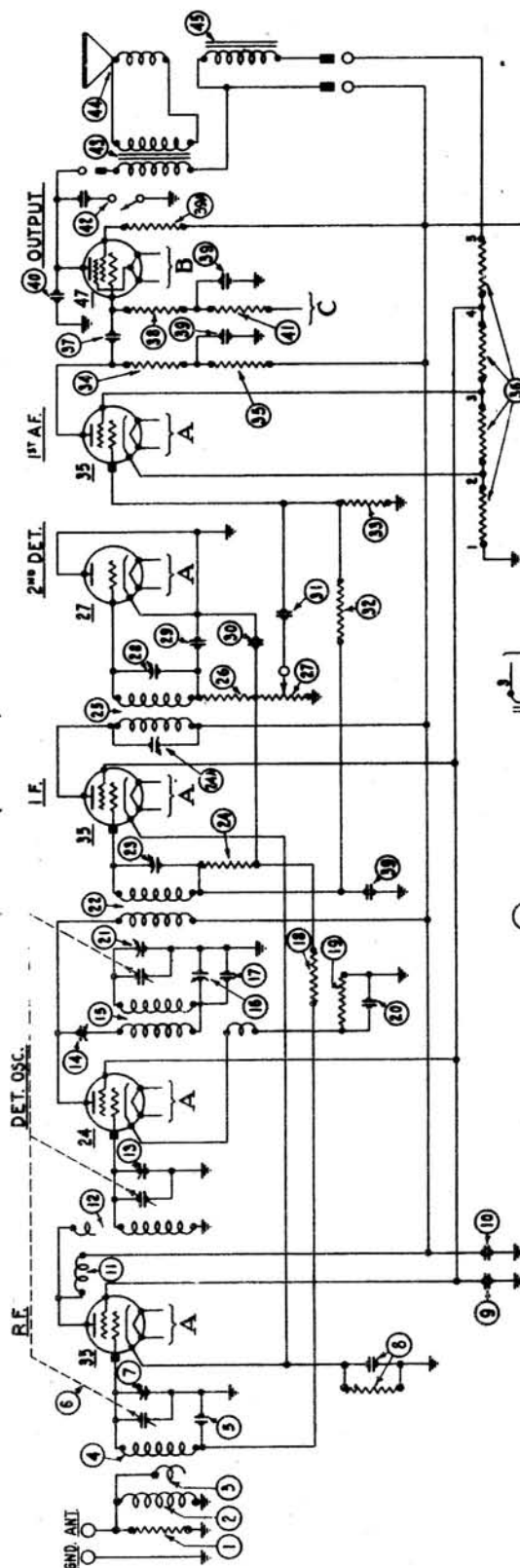
REPLACEMENT PARTS MODELS 70 AND 70-A

(Above Serial No. B-22,000)

No. on Figs. 3 and 4	Description	Part No.
①	Resistor (10,000 ohms)	4112
②	Antenna Coil	04339
③	Condenser (.05 mfd.) double	3615-AF
④	Tuning Condenser Assembly 50-60 cycles	04164
⑤	Tuning Condenser Assembly 25-40 cycles	04165
⑥	Compensating Condenser—Antenna— (Part of Tuning Condenser Assembly)	
⑦	Condenser (.09 mfd. and 200 ohm Resistor)	4989-L
⑧	Condenser (.5 mfd.)	3583
⑨	Combined with ⑧	
⑩	R. F. Choke	04196
⑪	Interstage Coil	04185
⑫	Compensating Condenser—Detector— (Part of Tuning Condenser Assembly)	
⑬	Compensating Condenser—Coupling	04000-M
⑭	Oscillator Coil	04186
⑮	Compensating Condenser—Low Fre- quency	04000-F
⑯	Condenser (410 mmf.)	5120
⑰	Resistor (2,000,000 ohms)	5672
⑱	Resistor (10,000 ohms)	4412
⑲	Condenser (700 mmf.)	4520
⑳	Compensating Condenser—High Fre- quency—(part of Tuning Condenser Assembly)	
㉑	First I. F. Transformer	04190
㉒	Compensating Condenser—First I. F.	04000-M
㉓	Resistor (2,000,000 ohms)	5672
㉔	Compensating Condenser 2nd I.F. Primary	04000-M
㉕	Second I. F. Transformer	08035
㉖	Resistor (90,000 ohms)	4411
㉗	Volume Control	6015
㉘	Compensating Condenser—Second I. F.	04000-M
㉙	Condenser (110 mmf.)	4519
㉚	Condenser (110 mmf.)	4519
㉛	Condenser (.01 mfd.)	3903-G
㉜	Resistor (4,000,000 ohms)	6010
㉝	Resistor (1,000,000 ohms)	4409
㉞	Resistor (70,000 ohms)	5385
㉟	Resistor (25,000 ohms)	4516

No. on Figs. 3 and 4	Description	Part No.
㊱	B. C. Resistor	04196
㊲	Condenser (.01 mfd.)	3903-T
㊳	Resistor (490,000 ohms)	4517
㊴	Filter Condenser Block (.05, .25, 1.5 mfd.)	04194
㊵	Resistor (3,000 ohms)	5309
㊶	Condenser (.01 mfd.)	3903-U
㊷	Resistor (330,000 ohms) 50-60 cycles	6046
㊸	Resistor (490,000 ohms) 25-40 cycles	4517
㊹	Tone Control	03637
㊺	Output Transformer	2673
㊻	Voice Coil & Cone Assembly	02996
㊼	Field Coil Assembled with Pot	02996
㊽	On-Off Switch	4096
㊾	Condenser (.015 mfd. Double)	3793-H
㊿	Power Transformer (50-60 cycles)	5117
	Power Transformer (25-40 cycles)	5118
	Power Transformer (50-60 cycles, 230 volts)	5119
Ⓚ	Pilot Light	3463
Ⓛ	Electrolytic Condenser (6 mfd.) 50-60 cycles	4016
	Electrolytic Condenser (14 mfd.) 25-40 cycles	5725
Ⓜ	Electrolytic Condenser (6 mfd.) 50-60 cycles	4016
	Electrolytic Condenser (10 mfd.) 25-40 cycles	5142
Ⓝ	Filter Choke	4819
Ⓞ	Resistor (51,000 ohms)	4518
Ⓟ	Resistor (490,000 ohms)	4517
	Tube Shield	04196
	Knob (Large)	03064
	Knob (Small)	03437
	Knob Spring	4147
	Grid Clip	4897
	Five Prong Socket Assembly	4956
	Four Prong Socket Assembly	4956
	Dial Complete	03031
	Base	5312
	Chassis Mounting Screw	W-468
	Mounting Washer	W-315
	Rubber Washer	5189

MODELS 70 AND 70-A (A. V. C.)



- ① Volume Control
- ② R. F. Transformer
- ③ Tuning Condenser (50-60 cycles)
- ④ Tuning Condenser (25-40 cycles)
- ⑤ Compensating Condenser—Antenna—(Part of Gang Condenser Assembly)
- ⑥ Condenser (.09 mfd. Double)
- ⑦ Detector Transformer
- ⑧ Compensating Condenser—Detector—(Part of Gang Condenser Assembly)
- ⑨ Oscillator Coil
- ⑩ Condenser (.410 mmf.)
- ⑪ Compensating Condenser—Low Frequency
- ⑫ Resistor (51,000 ohms)
- ⑬ Condenser (.09 mfd. Double)
- ⑭ Compensating Condenser—High Frequency—(Part of Gang Condenser Assembly)
- ⑮ Resistor (5,000 ohms)
- ⑯ Condenser (110 mmf.)

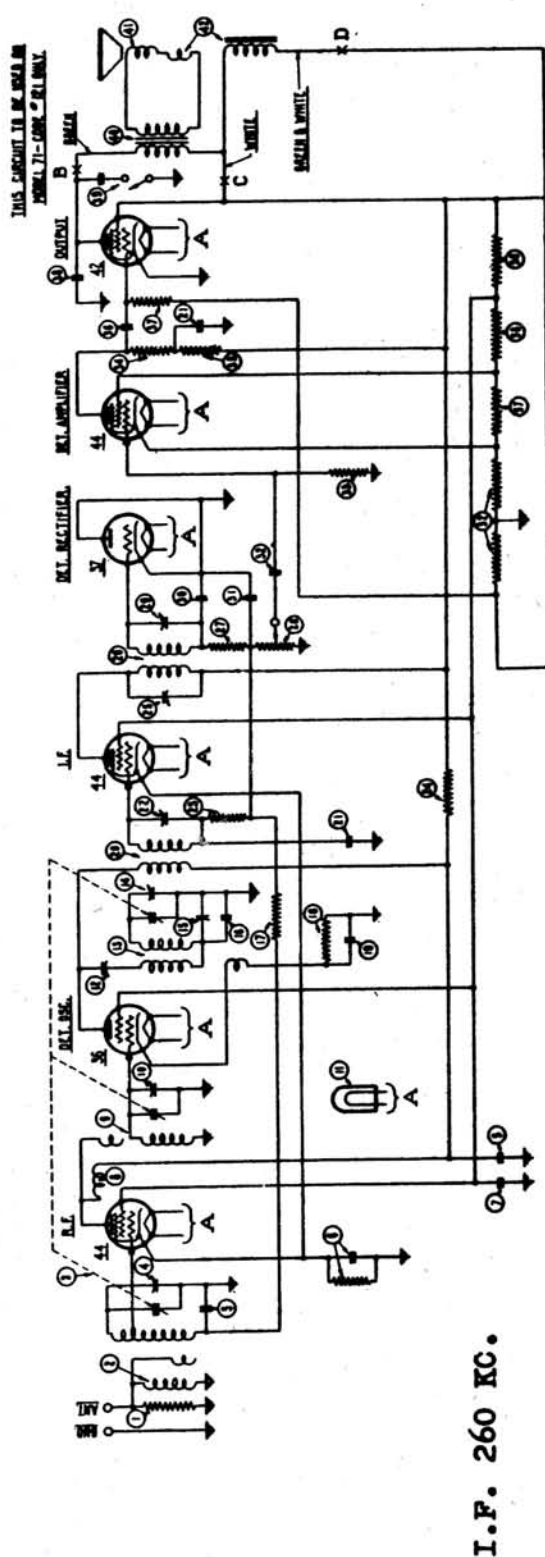
- ⑰ Resistor (13,000 ohms)
- ⑱ Compensating Condenser—1st I. F. Primary
- ⑲ First I. F. Transformer
- ⑳ Compensating Condenser—1st I. F. Secondary
- ㉑ Second I. F. Transformer
- ㉒ Condenser (.05 mfd.)
- ㉓ Compensating Condenser—2nd I. F. Secondary
- ㉔ Condenser (.5 mfd.)
- ㉕ Resistor (51,000 ohms)
- ㉖ Condenser (500 mmf.)
- ㉗ Condenser (250 mmf.)
- ㉘ R. F. Choke
- ㉙ Condenser (.09 Combined with 250 ohm Resistor)
- ㉚ Resistor (240,000 ohms)
- ㉛ Resistor (45,000 ohms) 50-60 cycles
- ㉜ Resistor (99,000 ohms) 25-40 cycles

- ① Condenser (.01 mfd.)
- ② Resistor (240,000 ohms)
- ③ Condenser (.25 mfd.)
- ④ Output Transformer
- ⑤ Voice Coil and Cone Assembly
- ⑥ Field Coil (Assembled with Pot)
- ⑦ B. C. Resistor
- ⑧ Electrolytic Condenser (6 mfd.) 50-60 cycles
- ⑨ Choke
- ⑩ Condenser (.09 mfd.) 50-60 cycles
- ⑪ Electrolytic Condenser (6 mfd.) 50-60 cycles
- ⑫ Pilot Light
- ⑬ Power Transformer (50-60 cycles)
- ⑭ "On-Off" Switch
- ⑮ Condenser (.015 mfd. Double)

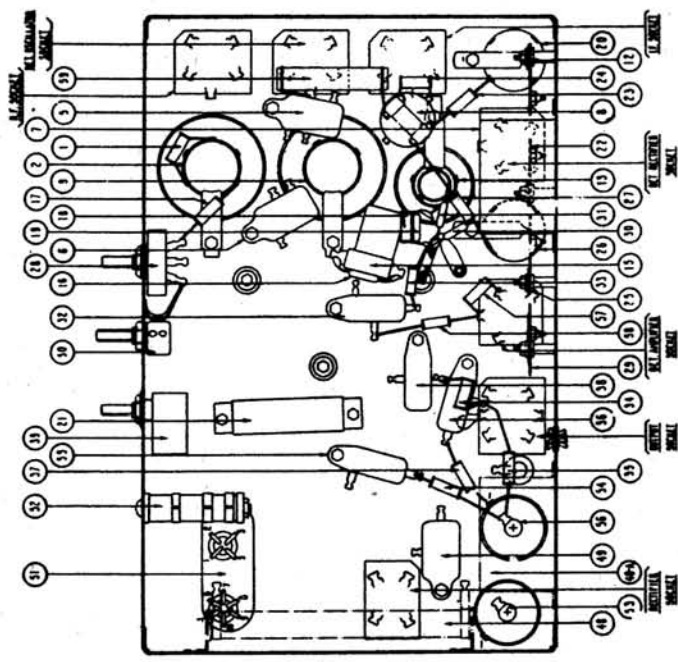
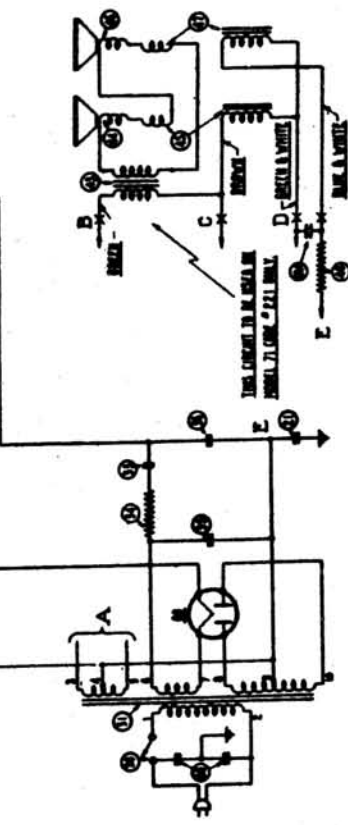
I.F. 260 KC.

Philco Radio

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



I.F. 260 KC.



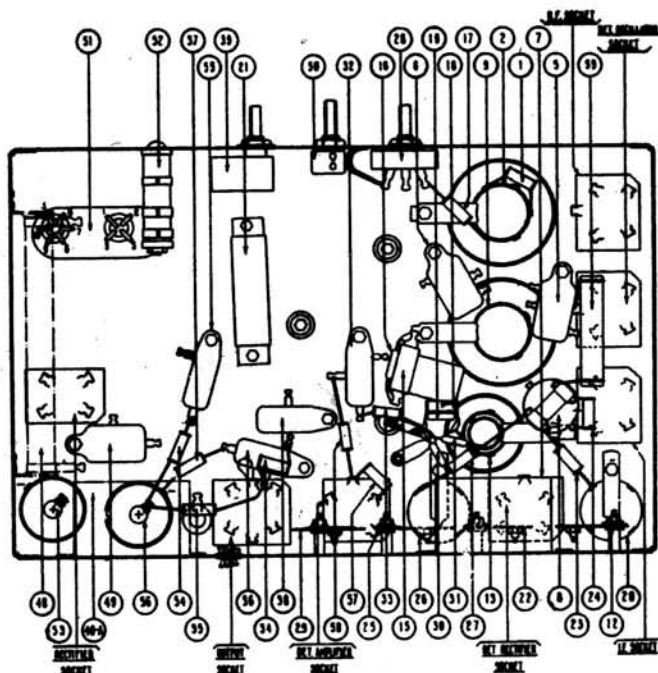
Model 71
Philco Radio

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

Replacement Parts for Model 71 Series

① Resistor (10,000 ohms)	4412	Ⓢ Speaker Field and Bucking Coil assembled with pot—(K-7) single speaker models	02761
② R. F. Transformer	04339	Ⓣ Output Transformer — Twin speaker models	2564
③ Tuning Condenser (50-60 cycles)	04733	Ⓤ Voice Coil and cone assembly	02823
④ Tuning Condenser (25-40 cycles)	04734	ⓖ Speaker Field and Bucking Coil assembled with pot—(K-10) Twin speaker models	02767
⑤ Condenser (.05 Mfd. double)	3615-AF	ⓗ Voice coil and cone assembly	02823
⑥ Condenser (.09 Mfd. and 200 ohm resistor)	4989-L	Ⓢ Speaker field assembled with pot —(K-9) Twin speaker models	02762
⑦ Condenser (.5 Mfd.)	3583	Ⓣ Resistor (5620 ohms) wire wound —Twin speaker models	6451
⑧ R. F. Choke	04198	Ⓤ A Condenser (.25 Mfd.) Twin Speaker Models	04997
⑨ Detector Transformer	04185	ⓖ Condenser (.015 Mfd. Double)	3793-H
Ⓢ Compensating Condenser—De- tector—Part of tuning con- denser assembly		Ⓢ On-off Switch	6498
Ⓣ Pilot Light	6608	Ⓣ Power Transformer—50-60 cy- cles—single speaker	6454
Ⓤ Compensating Condenser—1st I. F. primary	04000-M	Ⓤ Power Transformer—25-40 cy- cles—single speaker	6455
ⓖ Oscillator Coil	04186	ⓖ Power Transformer—50-60 cy- cles—230 volts—single speaker	6456
Ⓢ Compensating Condenser—High frequency—Part of tuning condenser assembly		Ⓢ Power Transformer—50-60 cy- cles—twin speaker	6457
Ⓣ Compensating condenser—Low frequency	04000-F	Ⓢ Power Transformer—25-40 cy- cles—twin speaker	6458
Ⓤ Condenser (410 Mmf.) (Yellow and Orange)	5120	Ⓢ Power Transformer—50-60 cy- cles—230 volts—twin speaker	6459
ⓖ Resistor (1,000,000 ohms)	4409	Ⓣ Resistor—wire wound (245 ohms and 185 ohms)	6452
Ⓢ Resistor (15,000 ohms)	6208	Ⓤ Electrolytic Condenser (6 Mfd.) (50-60 cycles) single speaker	6453
Ⓢ Condenser (700 Mmf.) (White and Yellow)	4520	Ⓢ 8 Mfd. Twin speaker	6707
Ⓢ First I. F. Transformer	04190	Ⓢ Resistor (10,000 ohms)	4412
Ⓢ Filter Condenser Bank (2—.05, .25 Mfd.)	04731	Ⓢ Condenser (.05 Mfd.)	3615-G
Ⓢ Compensating Condenser—1st I. F. secondary	04000-M	Ⓢ Electrolytic Condenser (6 Mfd.) (50-60 cycles) single speaker	4916
Ⓢ Resistor (1,000,000 ohms)	4409	Ⓢ 8 Mfd. Twin speaker	6706
Ⓢ Resistor (1,000 ohms)	5837	Ⓢ Resistor (5,000 ohms)	5310
Ⓢ Compensating Condenser—2nd I. F. primary	04000-M	Ⓢ Resistor (5,000 ohms)	5310
Ⓢ Second I. F. Transformer	04319	Ⓢ Resistor (13,000 ohms)	6450
Ⓢ Resistor (99,000 ohms)	4411	Ⓢ Tube Shield (small)	5387
Ⓢ Volume Control	6499	Ⓢ Tube Shield (large)	04735
Ⓢ Compensating Condenser—2nd I. F. secondary	04000-M		
Ⓢ Condenser (110 Mmf.) (Blue and Golden Yellow)	4519		
Ⓢ Condenser (110 Mmf.) (Blue and Golden Yellow)	4519		
Ⓢ Condenser (.01 Mfd.)	3903-J		
Ⓢ Resistor (1,000,000 ohms)	4409		
Ⓢ Resistor (70,000 ohms)	5385		
Ⓢ Resistor (25,000 ohms) Single Speaker	4516		
Ⓢ Resistor (51,000 ohms) Twin Speaker Models	4518		
Ⓢ Condenser (.01 Mfd.)	3903-N		
Ⓢ Resistor (490,000 ohms)	4517		
Ⓢ Condenser (.01 Mfd.)	3903-AA		
Ⓢ Tone Control	04757		
Ⓢ Output Transformer — single speaker models	2580		
Ⓢ Voice Coil and Cone assembly	02823		

Philco Radio



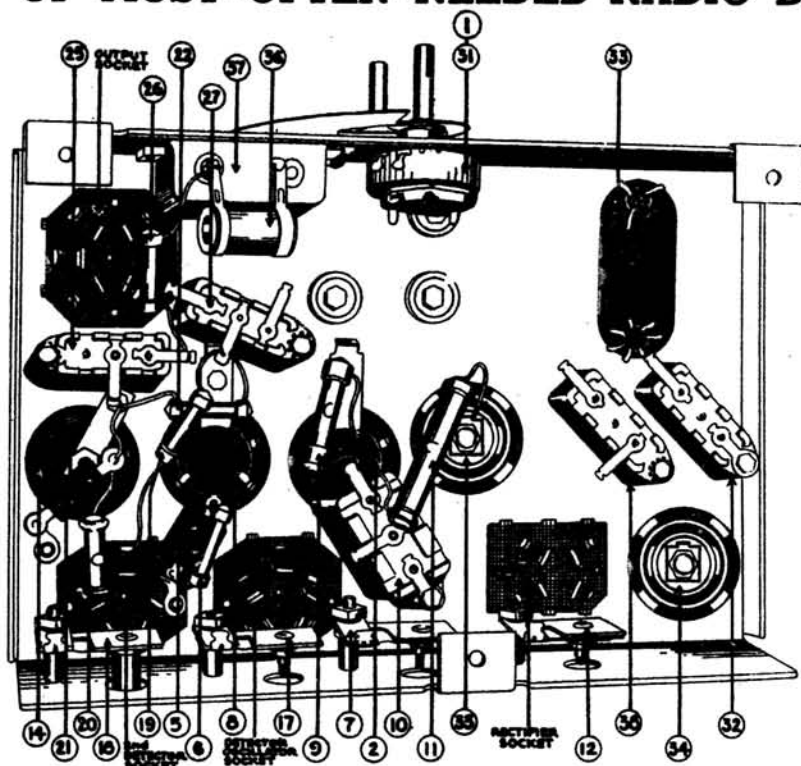
MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



I.F. 450 KC.

Philco Radio

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



REPLACEMENT PARTS MODEL 80

No. on Figs. 2 and 3	Description	Part No.
①	Volume Control—Combined with On-Off Switch	7439
②	Antenna Transformer	05831
③	Tuning Condenser Assembly	05794
④	Compensating Condenser—Antenna—Part of Tuning Con. Assembly	
⑤	Condenser (710 Mmf.) White and Yellow	4520
⑥	Resistor (10,000 Ohms)	4412
⑦	Compensating Condenser—I.F. Primary	04000-A
⑧	Oscillator Coil	05832
⑨	Resistor (9,000 Ohms)	7501
⑩	Condenser (.09 Twin)	4989-B
⑪	Resistor (16,000 Ohms)	7500
⑫	Compensating Condenser—Low Frequency	04000-S
⑬	Compensating Condenser—High Frequency—Part of Tuning Con. Assembly	
⑭	I.F. Transformer	05834
⑮	Resistor (4,000,000 Ohms) Mounted on I.F. Transformer	6010
⑯	Condenser (50 Mmf.) White—Mounted on I.F. Transformer	3774
⑰	Compensating Condenser—I.F. Secondary	04000-D
⑱	Compensating Condenser	04000
⑲	Resistor (1,000,000 Ohms)	4409*
⑳	Resistor (10,000 Ohms)	4412
㉑	Condenser (1,000 Mmf.) Green and White	5215
㉒	Resistor (240,000 Ohms)	4410
㉓	Pilot Light	6608

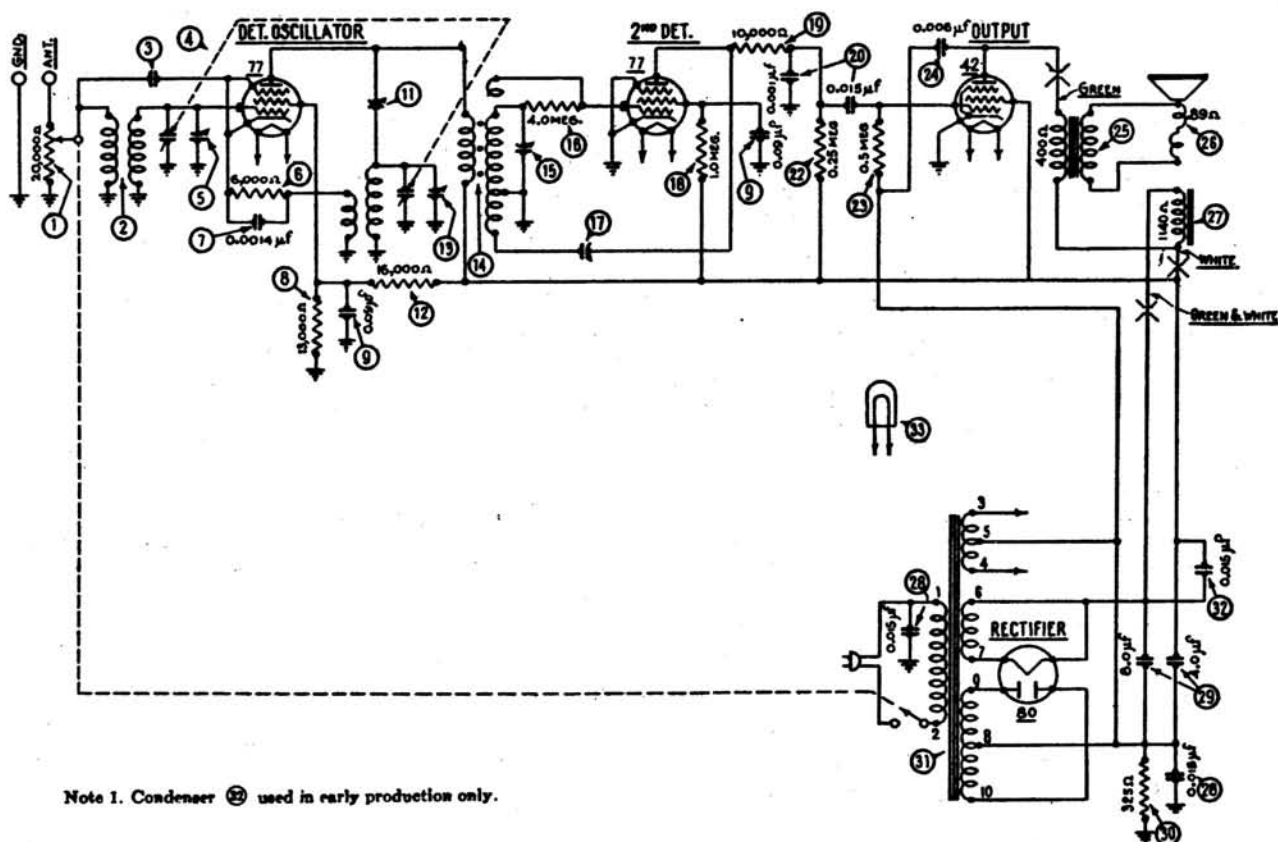
No. on Figs. 2 and 3	Description	Part No.
㉔	Condenser (.015 Mfd.)	3793-B
㉕	Resistor (490,000 Ohms)	4517*
㉖	Condenser (.006 Mfd.)	7625-B*
㉗	Output Transformer	2660
㉘	Voice Coil and Cone Assembly	02861
㉙	Speaker Field and Bucking Coil Assembled with Pot	02677*
㉚	On-Off Switch—Combined with Volume Control	7439
㉛	Condenser (.01 Mfd.)	3903-AH*
㉜	Power Transformer 50-60 Cycles	7421
㉝	Power Transformer 25-40 Cycles	7422
㉞	Power Transformer 50-60 Cycles, 230 Volts	7423
㉟	Electrolytic Condenser (8.0 Mfd.)	6707
㊱	Electrolytic Condenser (4.0 Mfd.)	7467
㊲	Resistor (325 Ohms) Wire Wound	7465*
㊳	Electrolytic Condenser—Dry—(10 Mfd.)	7440*
㊴	Condenser (.01 Mfd.)	3903-AJ*
㊵	Base	7417
㊶	Dial Complete	05828
㊷	Tube Shield	7172
㊸	Knob (Large)	03063
㊹	Knob (Small)	03064
㊺	Knob Spring	5262
㊻	Grid Clip	4897
㊼	Four Prong Socket Assembly	5026
㊽	Five Prong Socket Assembly	4956
㊾	Six Prong Socket Assembly	6417
㊿	Chassis Mounting Screw	W-567
1	Chassis Mounting Washer	W-315
2	Rubber Washer	5189
3	Pilot Lamp Shield	5760

* A number of circuit changes were made on chassis of run No. 3 and above. This run number is rubber stamped in a star on the back of the chassis. Referring to Figs. 2 and 3, the condenser ㉔ connects to the B-end of resistor ㉕ instead of to ground. The bucking coil - that section of ㉙ in series with the voice coil - is shorted out. The 10 mfd. dry electrolytic condenser ㉟ is eliminated, and replaced with a substitute .015 section combined with ㉔, part 3793R. The .01 mfd. condenser ㊴ is eliminated. The positions of ㉚, ㉛ and ㉜ are changed in the chassis from that shown in Fig. 3.

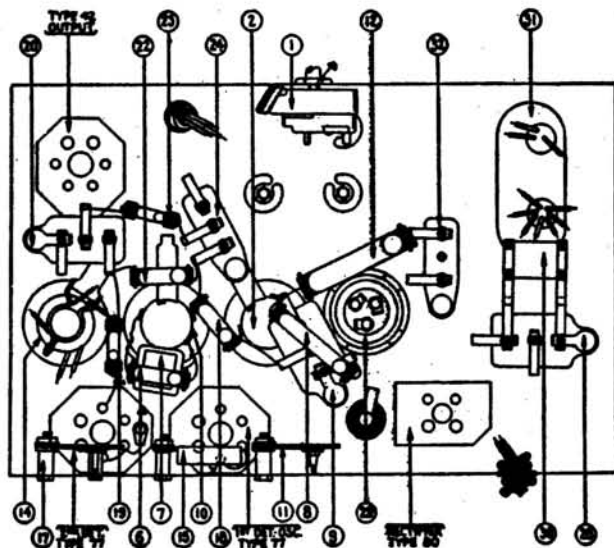
MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

MODEL 84

Philco Radio



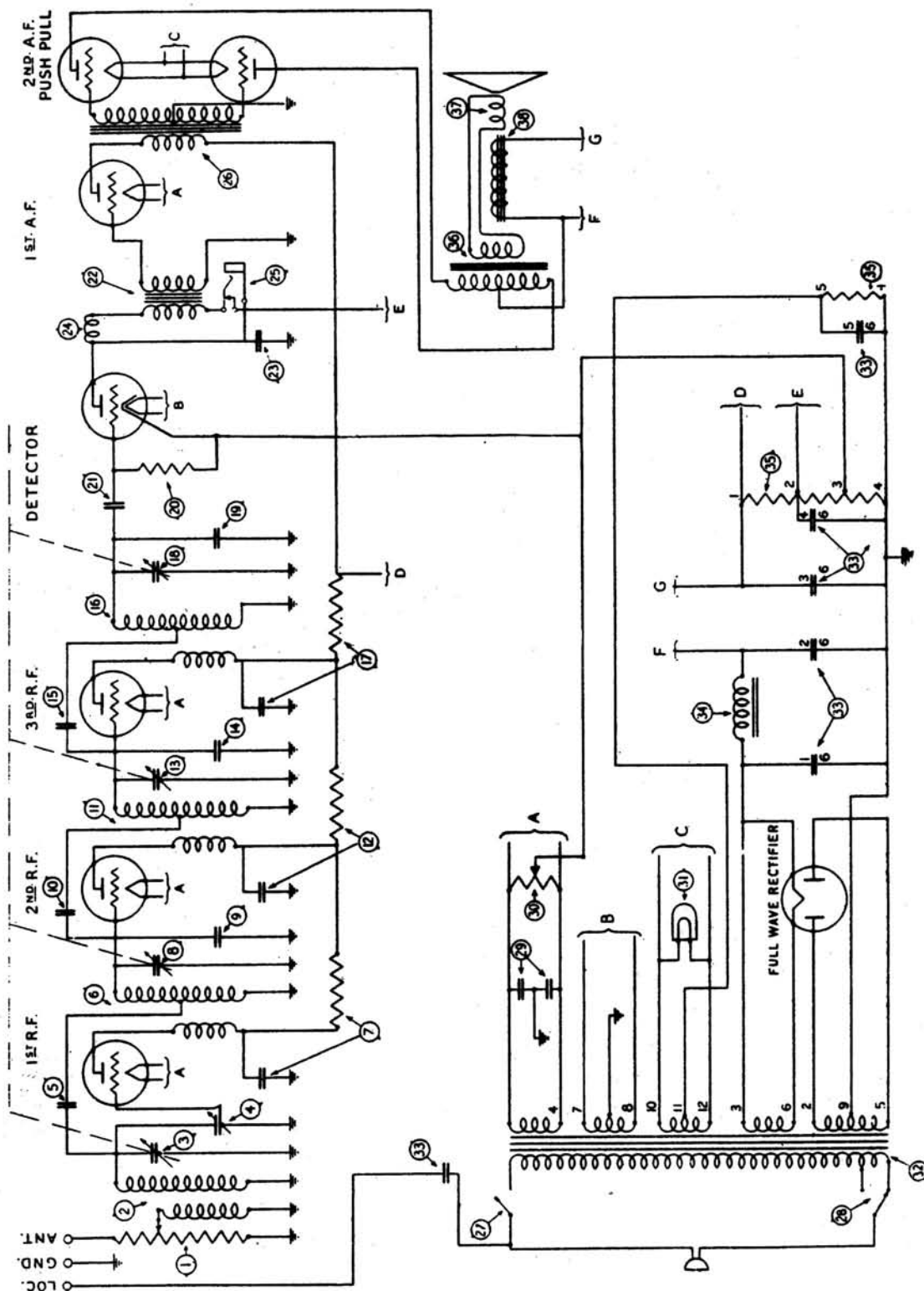
Note 1. Condenser (22) used in early production only.



I. F. 460 K. C.

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

Model 86 and 82



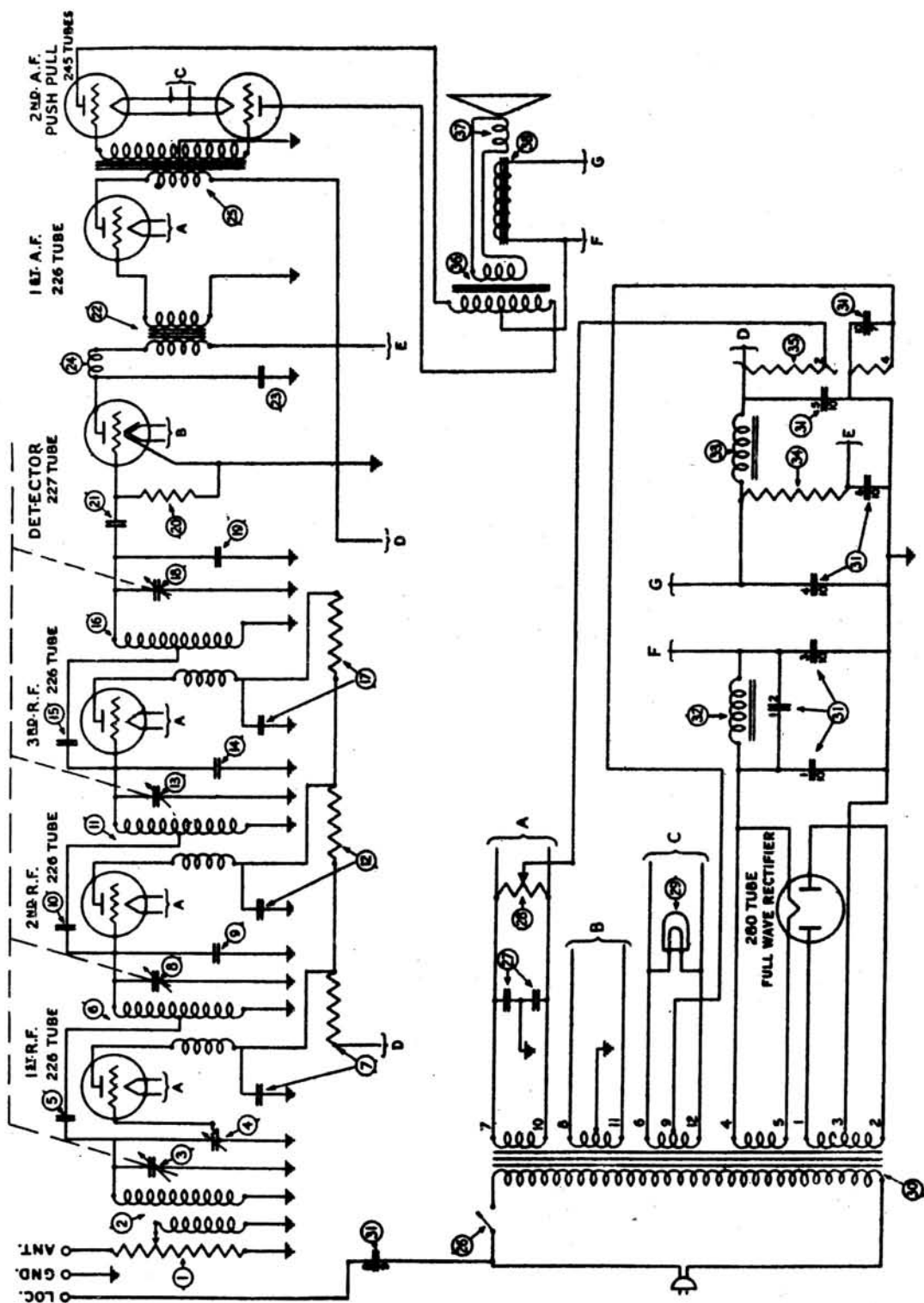
Replacement Parts for Model 86

PART NAME	PART No.
Volume Control	3076
R. F. Transformer (Antenna Tuning)	3075-B
Tuning Condenser (complete with drum and scale)	3001-B
Range Control	3133
Neutralizing Condenser	3025-A
R. F. Transformer	3075-A
By-Pass Condenser (.1 mfd. with Plate Resistor Winding)	3292-A
Compensating Condensers	3282-A
Grid Leak	3083
Grid Condenser	3082
Audio Transformer	3241
By-Pass Condenser (.001 mfd.)	3081
Detector R. F. Choke	3256-A
Phonograph Pick-Up Jack	3087
Push-Pull Input Transformer	3242
Power-Toggle Switch	3253
Primary Tap Switch	3116
Filament By-Pass Condenser (2 sections .5 mfd.)	3080
6-Ohm Hum Adjuster	3096
Pilot Lamp	3105
Power Transformer (60 cycle)	3271
Filter Condenser Block (60 cycle)	3246
Filter Choke Coil	3269
B-C Section Resistor	3232
Push-Pull Output Transformer	2897
Speaker Plug	2871-A
Speaker Cone and Voice Coil	2898
Speaker Field Coil	2896
Cable Spring	3012
Control Knob Tuning Condenser	3035-A
Control Knob (Volume and Range Control)	3036-A
228 Tube Socket	3051-A
Condenser Drive Cable	3054-A
Knob Spring	3103
Fibre Adjusting Wrench	3164
280 Tube Socket	3168-A
171 Tube Socket	3170-A
Pilot Lamp Socket Assembly	3202-A
Jack Insulator Nut	3231
Terminal Panel Assembly	3236-A
Speaker Socket	3247-A
227 Tube Socket, Spring Type	3263-A
Jack Insulator	3272
A.C. Attachment Cord and Plug	L-943-A
Wiring Cable	L-1037
Speaker Cable	L-1039
Socket Wrench for Speaker Mounting Bolts	3312
Note:—When ordering replacements for 25-cycle Receivers (Model 83) use the following part numbers instead of those given above. All other part numbers remain the same.	
Power Transformer (25 cycle)	3278
Filter Condenser Block (25 cycle)	3279

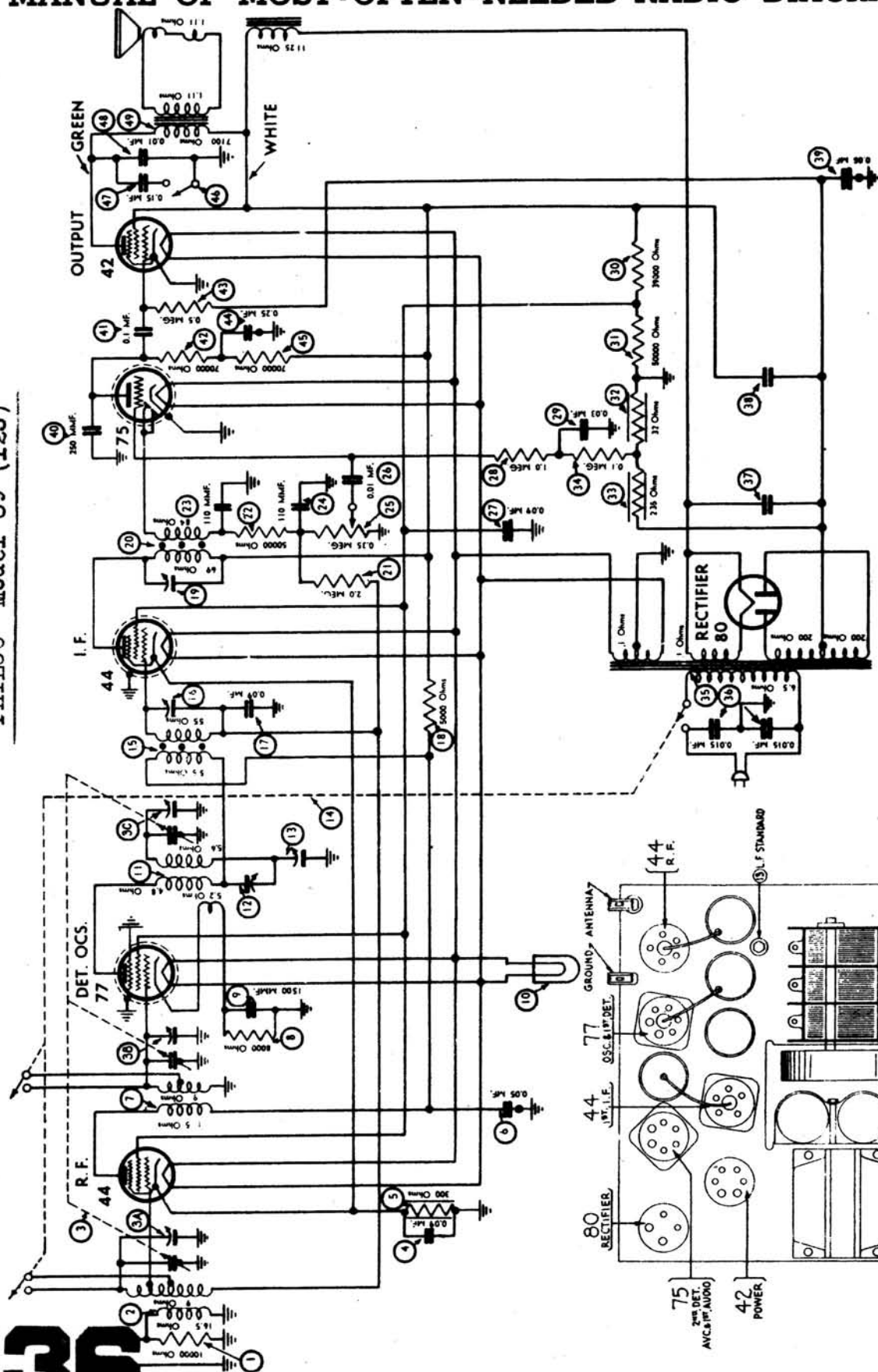
Replacement Parts for Model 87

PART NAME	PART No.
Volume Control	3076
R. F. Transformer (Antenna Tuning)	3075-B
Tuning Condenser (Complete with Drum and Scale)	3001-B
Range Control	3133
Neutralizing Condenser	3441-A
R. F. Transformer	3075-A
By-Pass Condenser (.1 mfd. with Plate Resistor Winding)	3292-A
Compensating Condensers	3435-A
Grid Leak	3083
Grid Condenser	3082
Audio Transformer	3241
By-Pass Condenser (.001 mfd.)	3081
Detector R. F. Choke	3256-A
Push-Pull Input Transformer	3242
Power Toggle Switch	3501
Filament By-Pass Condenser (2 Sections .5 mfd.)	3080
6-Ohm Hum Adjuster	3096
Pilot Lamp	3463
Power Transformer	3400
Filter Condenser Block	3401
Filter Choke Coil (First)	3422
Filter Choke Coil (Second)	3472
Detector Resistor	3542
B-C Resistor	3399
Push-Pull Output Transformer	2848
Speaker Cone and Voice Coil	2844-A
Speaker Field Coil	2850
Speaker Plug	2871-A
Cable Spring	3012
Control Knob Tuning Condenser	3301
Control Knob (Volume and Range Control)	3300
Condenser Drive Cable	3484
Knob Spring	3306
Fibre Adjusting Wrench	3164
4-Hole Tube Socket	3423-A
Pilot Lamp Socket Assembly	3202-A
Terminal Panel Assembly	3236-A
Speaker Socket	3464-A
5-Hole Tube Socket	3442-A
A.C. Attachment Cord and Plug	L-943-A
Speaker Cable	L-1039-A
Socket Wrench for Speaker Mounting Bolts	3312
Tuning Scale	3398
Oscillator Kit	3540
Wood Switch Plug	3627

Model 87



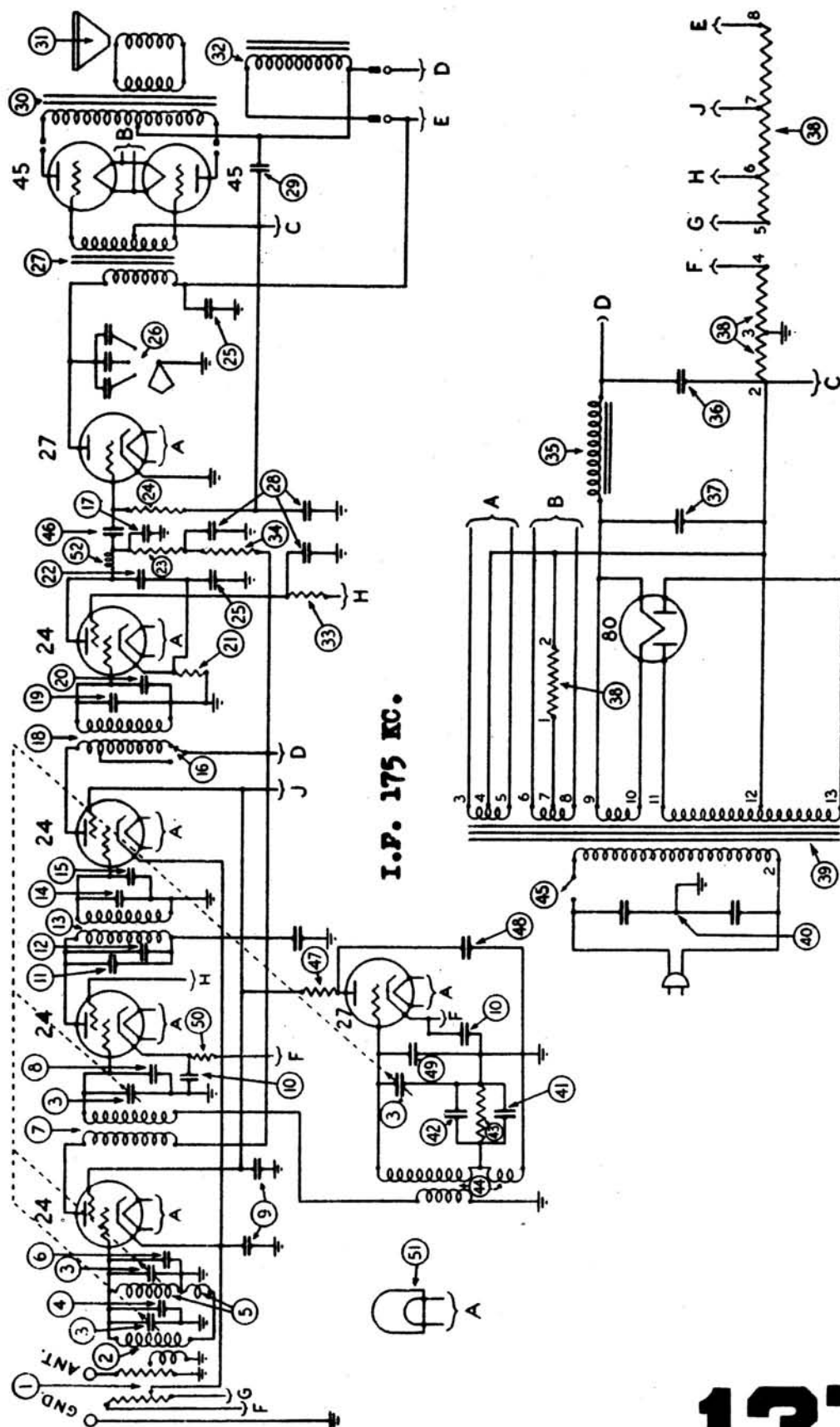
PHILCO Model 89 (123)



I.F. 260 KC.

Models 90 and 90-A

WITH 2- TYPE 45 TUBES



I.P. 175 KC.

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

Models 90 and 90-A

WITH 2- TYPE 45 TUBES

No. on Page 3 and 4	Description	Part No.	No. on Page 3 and 4	Description	Part No.
①	Volume Control	5039	②	Condenser .015 M. F. (Double)	3793-E
①	1st R. F. Transformer	03013	②	Condenser .0007 M. F. } Assembled	03060
①	Gang Condenser—50 to 80 cycles	03001	②	Resistor—50,000 Ohms	4237
①	Gang Condenser—25 to 40 cycles	03078	②	Oscillator Coil	03018
①	Compensating Condenser (Part of Tuning Condenser Assembly)		②	On-Off Switch	4096
①	2nd R. F. Transformer	03014	②	Condenser .001 M. F.	5215
①	Compensating Condenser (Part of Tuning Condenser Assembly)		②	Resistor—13,000 Ohms	3768
①	1st Det. Transformer	08015	②	Condenser .00011 M. F.	4519
①	Compensating Condenser (Part of Tuning Condenser Assembly)		②	Compensating Condenser (Part of Tuning Condenser Assembly)	
①	Condenser .09 M. F. (Double)	4980-C	②	Resistor—5,000 Ohms	3626
①	Condenser .09 M. F. (Double)	4980-B	②	Pilot Bulb	3463
①	Fixed Condenser .00011 } Assembled	3772-C	②	R. F. Choke	03086
①	Compensating Condenser		②	Line Cord and Plug	L-943
①	1st I. F. Transformer	03009	②	Tube Shield	03002
①	Compensating Condenser } Assembled	03061	②	Knob (large) Dial Control	4958-A
①	Fixed Condenser .00011		②	Spring (Dial Knobs)	4147
①	Normal Maximum Switch	3116	②	Knobs (small) Tone and Volume Control	4959-A
①	Condenser (.000035 mf)	4990	②	Knob (switch)	4290-A
①	2nd I. F. Transformer	03143	②	Grid Clip	4997
①	Compensating Condenser } Assembled	03061	②	Speaker Plug and Cable	L-1194-A
①	Fixed Condenser .00011		②	Grommet for R. F. Transformer Shield	5747
①	Resistor—50,000 Ohms	4518	②	Rectifier Tube Socket	5028
①	Condenser .00035	4990	②	Four Prong Socket Assembly	4956
①	Resistor—250,000 Ohms	4410	②	Five Prong Socket Assembly	4956
①	Resistor—1,000,000 Ohms	4409	②	Speaker Socket	4957
①	Condenser .5 M. F. (Double)	03024	②	Volume Control Insulator	4092
①	Tone Control	4037-A	②	Volume Control Insulator	4296
①	1st Audio Transformer	4952	②	Fabstok Clip	L-1126
①	Condensers 2—25 M. F. and 1—.5 M. F.	03029	②	Finishing Rosettes	4957
①	Condenser .05 M. F.	3615-G	②	Speaker Mounting Screws (3 used)	W-403
①	Output Transformer:		②	Speaker Mounting Screws (1 used)	W-483
①	H ₁ (For Large Cone Assembly)	2848	②	Dial	5021
①	K ₂ (For Small Cone Assembly)	2796	②	Mica for Gang Condenser Compensating	3473
①	Voice Coil Assembly and Cone:		②	Condenser	
①	H ₂ (Large Cone)	02997	②	Insulating Washer for Compensating	3600
①	K ₂ (Small Cone)	02996	②	Condenser	3614
①	Speaker Field—Assembled with Pot and Frame		②	Tuning Condenser Mounting Washer	3615
①	Resistor—250,000 Ohms	3768	②	Tuning Condenser Mounting Washer	3615
①	Resistor—250,000 Ohms	4410	②	Tuning Condenser Mounting Sleeve	3616
①	Filter Choke	4951	②	Spring for Tuning Condenser	4365
①	Condenser 5 M. F. Electrolytic Type (50-60 cycles)	4916	②	Base	5009
①	Condenser 10 M. F. Electrolytic Type (25-40 cycles)	5142	②	Complete Pilot Bracket	03061-A
①	Condenser 5 M. F. Electrolytic Type (25-40) and (80-60) cycles	4916	②	Dial Disc	4925
①	B. C. Resistor	4953	②	Light Shield Screen	4937
①	Power Transformer (50 to 80 cycles)	4938	②	Friction Drive Bracket	4980
①	Power Transformer (25 to 40 cycles)	4939	②	Brass Collar for Friction Drive	4985
			②	Shaft	4931

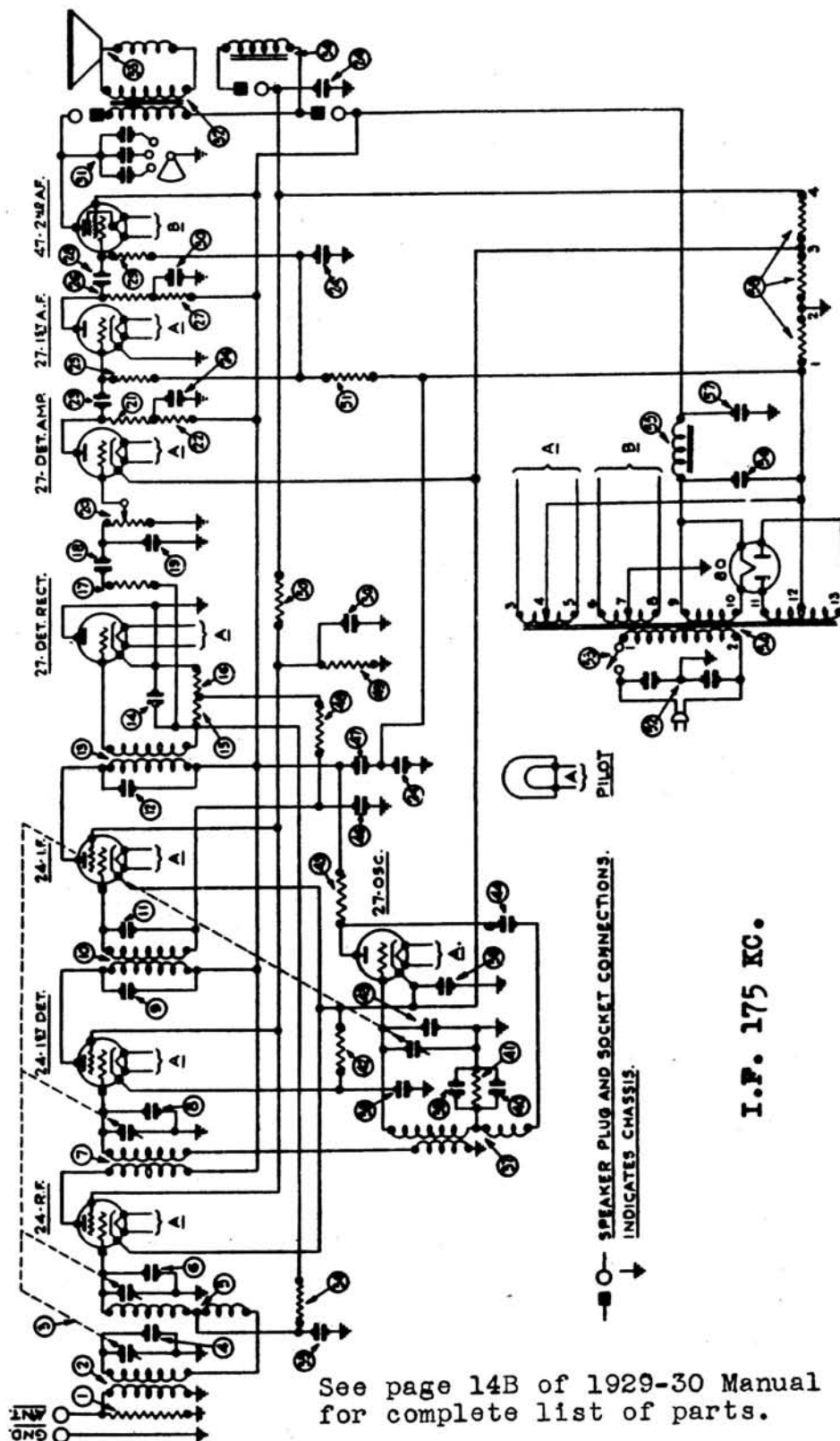
REPLACEMENT PARTS—MODELS 90 and 90-A RECEIVERS

(Above Serial No. 237,001)

No. on Page 3 and 4	Description	Part No.	No. on Page 3 and 4	Description	Part No.
①	Resistor (10,000 ohms)	4412	②	Voice Coil Assembly and Cone:	
①	First R. F. Transformer	03360	②	H ₂ (Large Cone)	02997
①	Gang Condenser (50-60 cycles)	03001	②	K ₂ (Small Cone)	02996
①	Gang Condenser (25-40 cycles)	03078	②	Speaker Field (Assembled with pot and frame)	
①	Compensating Condenser (part of gang condenser assembly)		②	By-Pass Condenser (.05 mfd.)	3615-W
①	Second R. F. Transformer	03014	②	Resistor (490,000 ohms)	4517
①	Compensating Condenser (part of gang condenser assembly)		②	Oscillator Coil	03018
①	First Detector Transformer	03015	②	By-Pass Condenser (.09 mfd.) double	4989-G
①	Compensating Condenser (part of gang condenser assembly)		②	Compensating Condenser } Assembled	03060
①	Compensating Condenser (First I. F. Primary)	03315	②	Condenser (.0007 mfd.)	
①	First I. F. Transformer	03009	②	Resistor (51,000 ohms)	4518
①	Compensating Condenser (First I. F. Secondary)	03315	②	Resistor (5,000 ohms)	5310
①	Compensating Condenser (Second I. F. Primary)	03317	②	Compensating Condenser (part of tuning condenser assembly)	
①	Second I. F. Transformer	03345	②	Condenser (110 mmf.)	4519
①	Condenser (110 mmf.)	4519	②	Resistor (51,000 ohms)	4237
①	Resistor (51,000 ohms)	4518	②	By-Pass Condenser (.05 mfd.)	3615-U
①	Resistor (51,000 ohms)	4518	②	By-Pass Condenser (.05 mfd.)	3615-E
①	Resistor (99,000 ohms)	4411	②	Resistor (490,000 ohms)	4517
①	By-Pass Condenser (.01 mfd.)	3903-M	②	Resistor (70,000 ohms)	5385
①	Condenser (.00025 mfd.)	3082	②	Resistor (25,000 ohms)	4516
①	Volume Control	5366	②	Resistor (240,000 ohms)	3768
①	Resistor (51,000 ohms)	4518	②	Condenser (.015 mfd.) double	3793-E
①	Resistor (70,000 ohms)	5385	②	On-Off Switch	4096
①	By-Pass Condenser (.01 mfd.)	3903-M	②	Power Transformer (50-60 cycles)	5362
①	Condenser (1-1 mfd., 1-13 mfd., 2-25 mfd.)	03325	②	Power Transformer (25-40 cycles)	5363
①	Resistor (240,000 ohms)	4410	②	Power Transformer (50-60 cycles, 220 volts)	5364
①	Resistor (25,000 ohms)	3656	②	Choke	4951
①	Resistor (25,000 ohms)	3656	②	Condenser (5 mfd.) Electrolytic type (50-60 cycles)	4916
①	By-Pass Condenser (.01 mfd.)	3903-P	②	Condenser (10 mfd.) Electrolytic type (25-40 cycles)	5142
①	Resistor (240,000 ohms)	4410	②	Condenser (5 mfd.) Electrolytic type (50-60 cycles)	4916
①	Condenser (.25 mfd., 1 mfd.)	03327	②	Condenser (10 mfd.) Electrolytic type (25-40 cycles)	5142
①	Tone Control	4037-A	②	B. C. Resistor	5365
①	Output Transformer	2673	②	Line Cord and Plug	L-943
			②	Tube Shield (Large)	03373

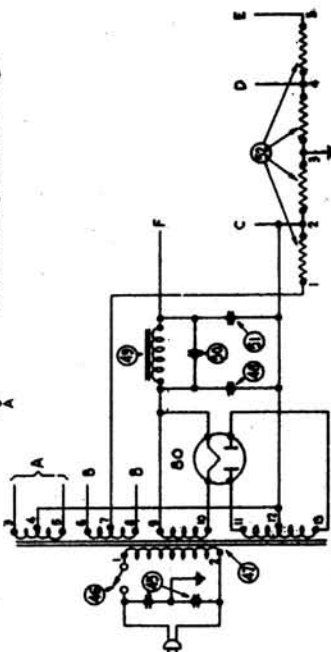
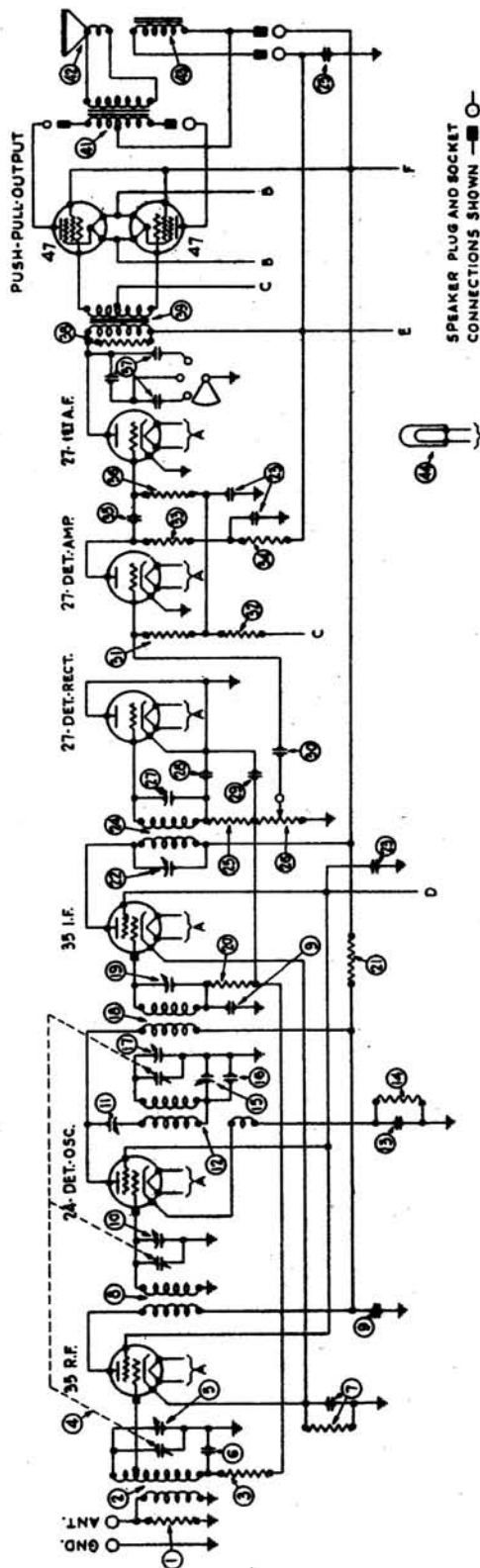
Models 90 and 90-A ABOVE SERIAL NO. 237,001 WITH 1-TYPE 47 TUBE

Philco Radio



I.F. 175 KC.

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



I.F. 260 KC.

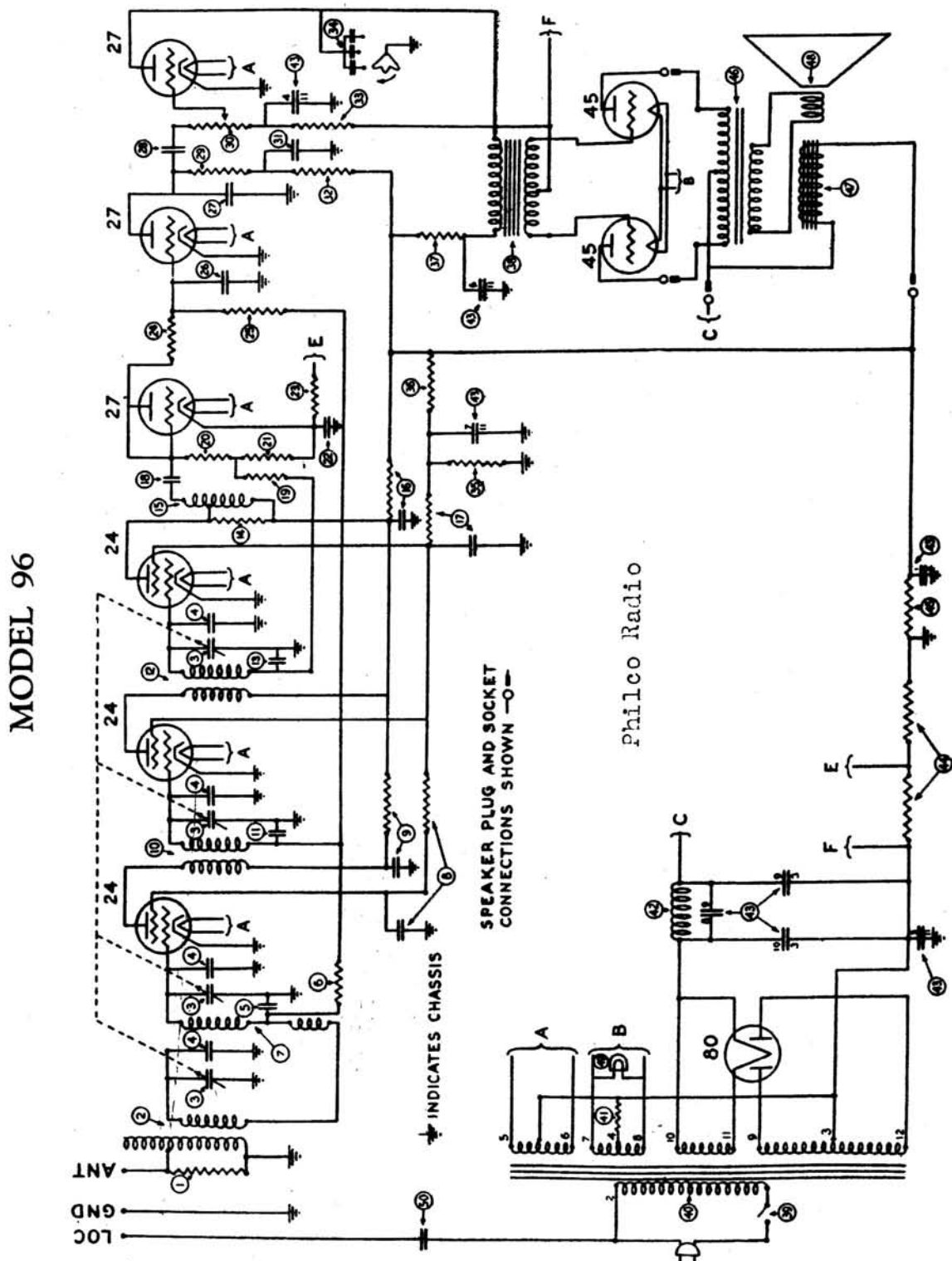
Philco Radio

MODEL 90

WITH 2- TYPE 47 TUBES
SERIAL NO. 32,001 TO B35,000
AND ABOVE B53,100

No. on Fig. 1 and 2	Description	Part No.
1	Resistor (10,000 Ohms)	4412
2	Antenna Transformer	04317
3	Resistor (1,000,000 Ohms)	4409
4	Tuning Condenser (50-60 cycles)	04309
5	Tuning Condenser (35-40 cycles)	04310
6	Compensating Condenser - Antenna Part of Tuning Condenser Assembly	3615-L
7	Condenser (.05 Mfd.)	3615-L
8	Condenser (.05 Mfd. and 200 Ohm Re- sistor)	4098-L
9	Detector Transformer	04408
10	Condenser (.05 Mfd.)	3615-AJ
11	Compensating Condenser - Detector Part of Tuning Condenser Assembly	04000-M
12	Compensating Condenser-Coupling	04409
13	Oscillator Coil	4320
14	Condenser (700 Mmf.)	6208
15	Resistor (15,000 Ohms)	04000-B
16	Compensating Condenser-Low Frequency	5120
17	Condenser (410 Mfd.)	4409
18	Resistor (1,000,000 Ohms)	4590
19	Resistor (1,000 Ohms)	04000-M
20	Compensating Condenser-Second I.F.	04407
21	Primary	04320
22	Condenser (2-25, 2-3 Mfd.)	4411
23	Second I.F. Transformer	6015
24	Resistor (99,000 Ohms)	
25	Volume Control	
26	Condenser (110 Mmf.)	4519
27	Condenser (110 Mmf.)	3008-N
28	Resistor (.01 Mfd.)	4517
29	Resistor (1,000,000 Ohms)	4516
30	Resistor (490,000 Ohms)	4409
31	Resistor (25,000 Ohms)	4409
32	Resistor (25,000 Ohms)	3008-X
33	Condenser (.01 Mfd.)	4409
34	Resistor (1,000,000 Ohms)	03137
35	Tone Control	4518
36	Resistor (51,000 Ohms)	6004
37	Push-Pull Input Transformer	5215
38	Condenser (1,000 Mmf.)	2086
39	Push-Pull Output Transformer	02874
40	Voice Coil and Cone Assembly	02862
41	Speaker Field Assembled with Pot	3408
42	Pilot Light	5792-E
43	Condenser (.015 Mfd. Double)	4005
44	On-Off Switch	6073
45	Power Transformer (50-60 cycles)	6073
46	Power Transformer (35-40 cycles)	6074
47	Power Transformer (50-60 cycles, 250 volts)	4916
48	Electrolytic Condenser (5 Mfd.) 50-60 cycles	4519
49	Filter Choke	0287-B
50	Condenser (.15 Mfd.)	4916
51	Condenser (5 Mfd.)	6071
52	B. C. Resistor	

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

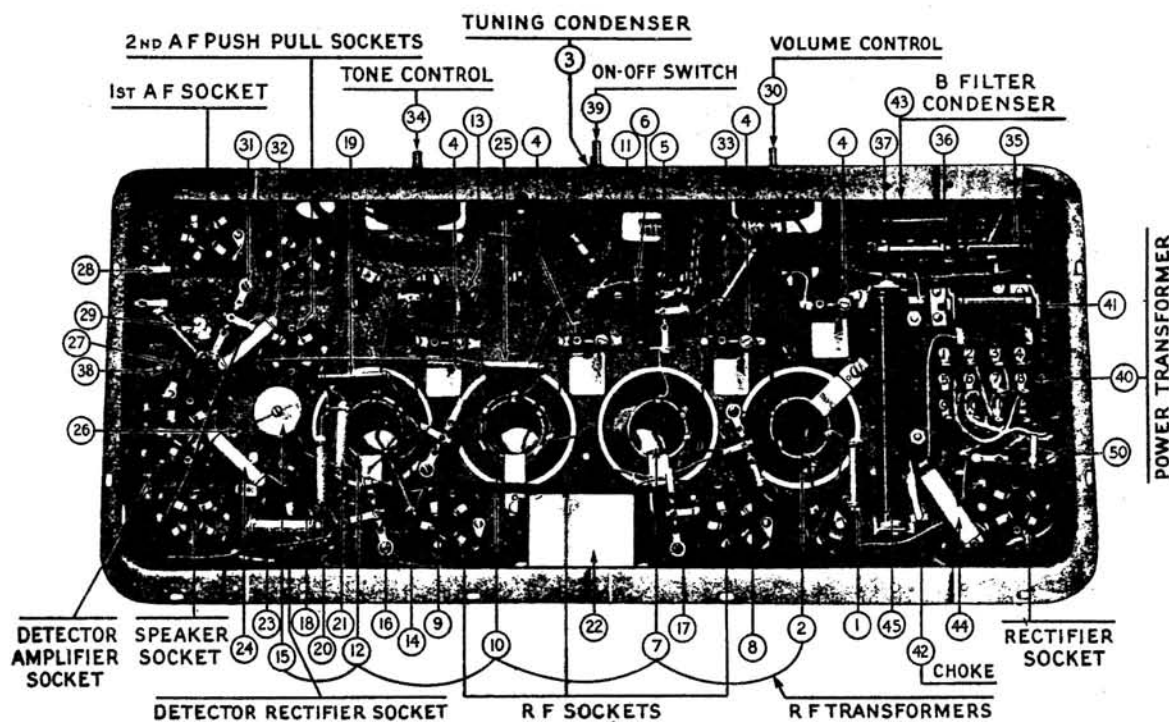


Philco Radio

↑ INDICATES CHASSIS

SPEAKER PLUG AND SOCKET CONNECTIONS SHOWN —O—

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

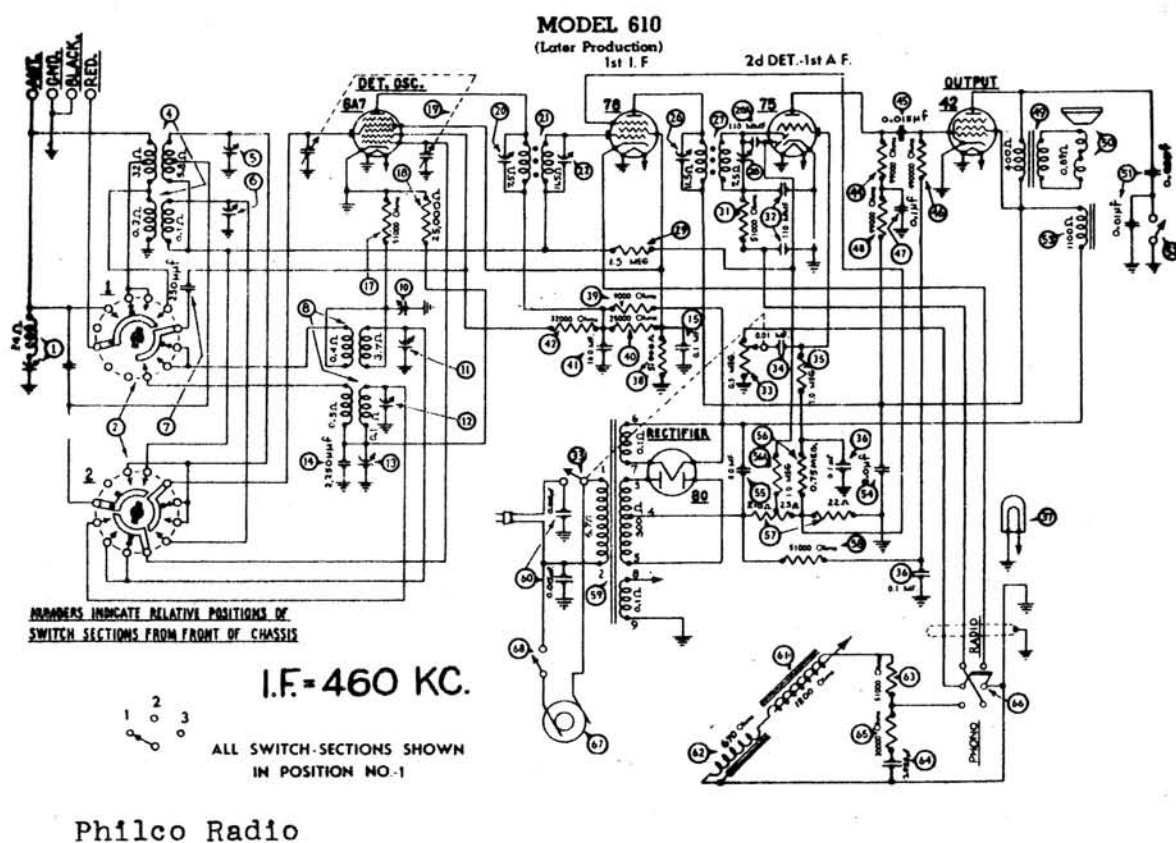
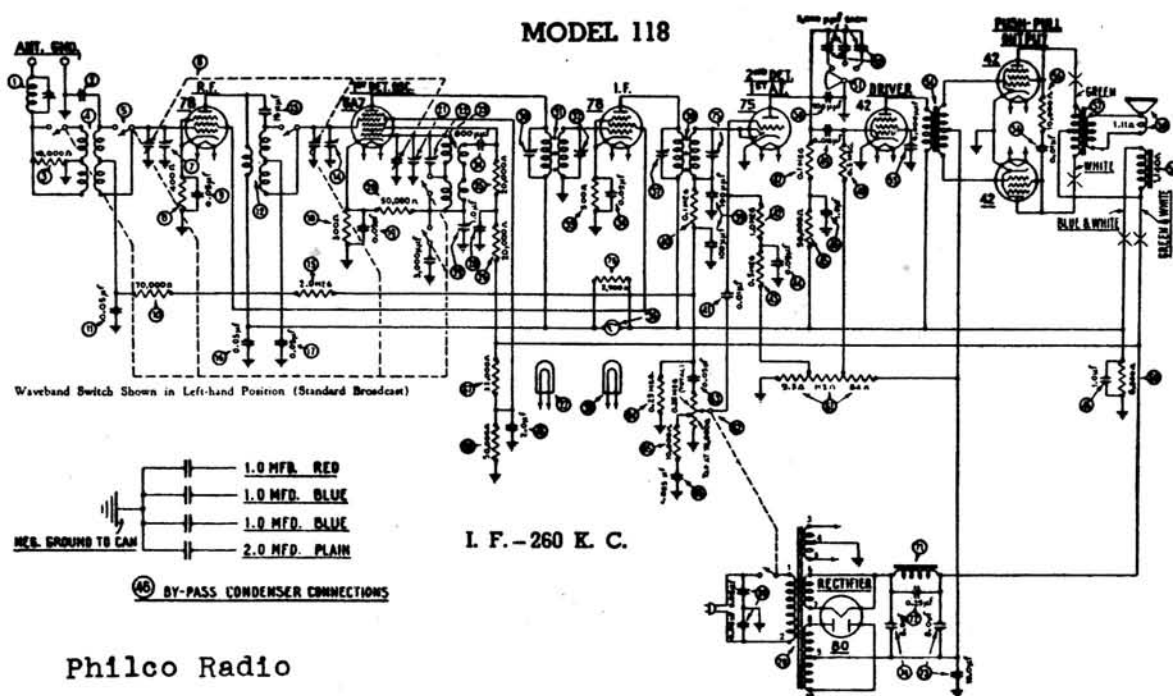


Replacement Parts for Model 96

No.	Description	Part No.	No.	Description	Part No.
1	Antenna Resistor	3526	30	Volume Control	4093
2	First R. F. Transformer	3744-A	31	By-Pass Condenser	3615-D
3	Tuning Condenser	4000-D	32	Resistor	3768
4	Compensating Condenser	3772-A	33	Resistor	3542
5	By-Pass Condenser	3615-F	34	Tone Control	4037-A
6	Resistor	3542	35	Resistor	3542
7	Second R. F. Transformer	3744-B	36	Resistor	3766
8	By-Pass Condenser and Resistor	3615-C	37	Resistor	3656
9	By-Pass Condenser and Resistor	3615-B	38	Input Transformer	3537
10	Third R. F. Transformer	3744-C	39	On-Off Switch	4095
11	By-Pass Condenser	3615-E	40	Power Transformer (60 Cycle)	3752
12	Fourth R. F. Transformer	3744-C	41	Power Transformer (25 Cycle)	3753
13	By-Pass Condenser	3615-E	42	C Resistor	3763
14	Resistor	3766	43	Choke	3422
15	Fifth R. F. Transformer	3775-B	44	Filter Condenser (60 Cycle)	3754
16	By-Pass Condenser and Resistor	3615-B	45	Filter Condenser (25 Cycle)	3755
17	By-Pass Condenser and Resistor	3615-C	46	Resistor	3764
18	Condenser	3774	47	B Resistor	3762
19	Resistor	3769	48	Out-Put Transformer	2848
20	Resistor	3767	49	Field Coil	2850
21	Resistor	3767	50	Voice Coil and Cone	2794-B
22	By-Pass Condenser	3583		Pilot Lamp	3463
23	Resistor	3767		Condenser (LOC)	3793-B
24	Resistor	3768		Knob (Vol. Control)	3579
25	Resistor	3769		Knob (Tuning Condenser)	3580
26	By-Pass Condenser	3082		Dial Indicator	4006
27	By-Pass Condenser	3082		Scale	4118
28	Condenser	3793-C		Speaker Plug and Cable (Short)	L-1101-A
29	Resistor	3769		Speaker Plug and Cable (Long)	L-1102-A

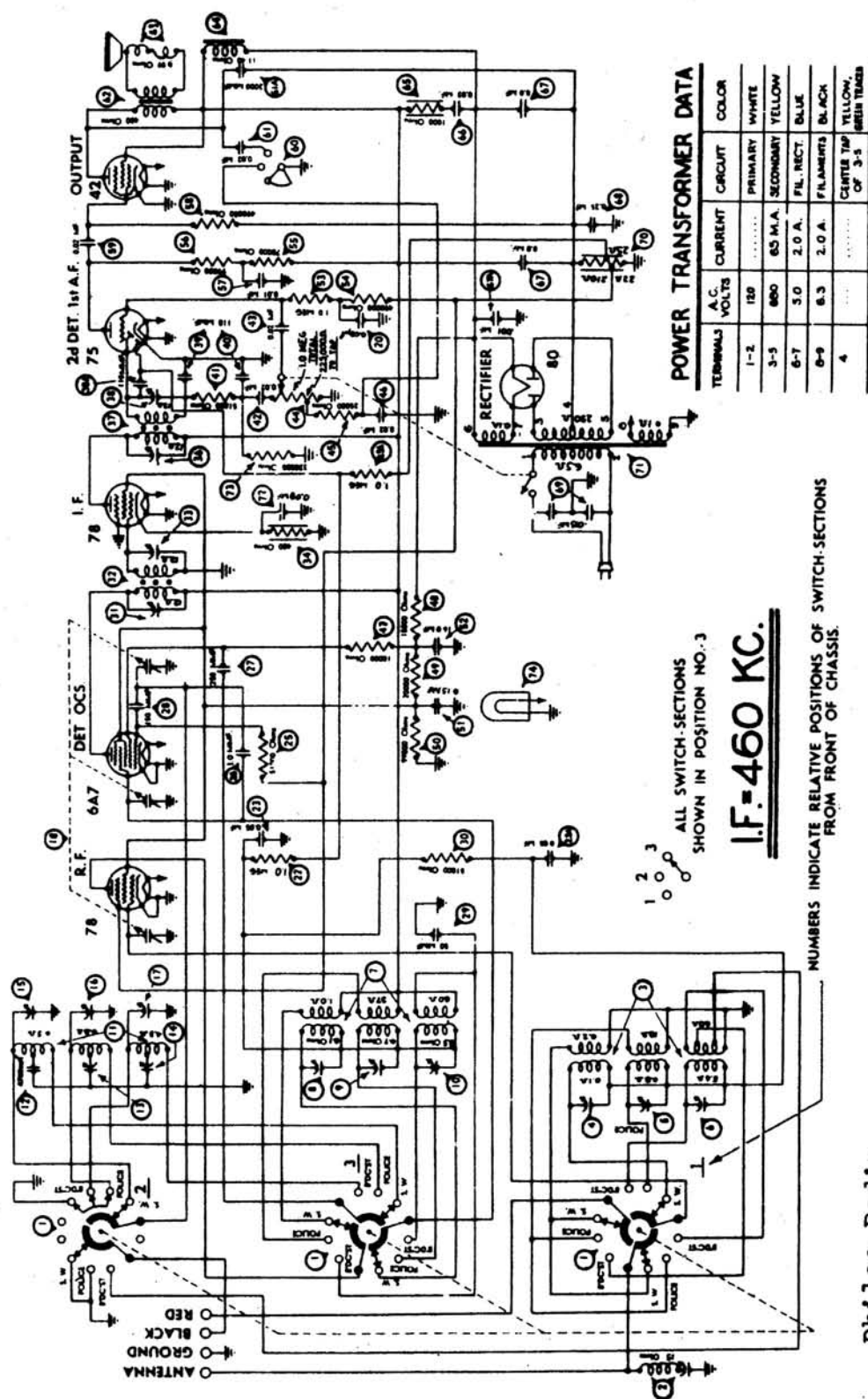
NOTE: The first two Compensating Condensers ① are 3772-A; the third and fourth Condensers are 3968-A.

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

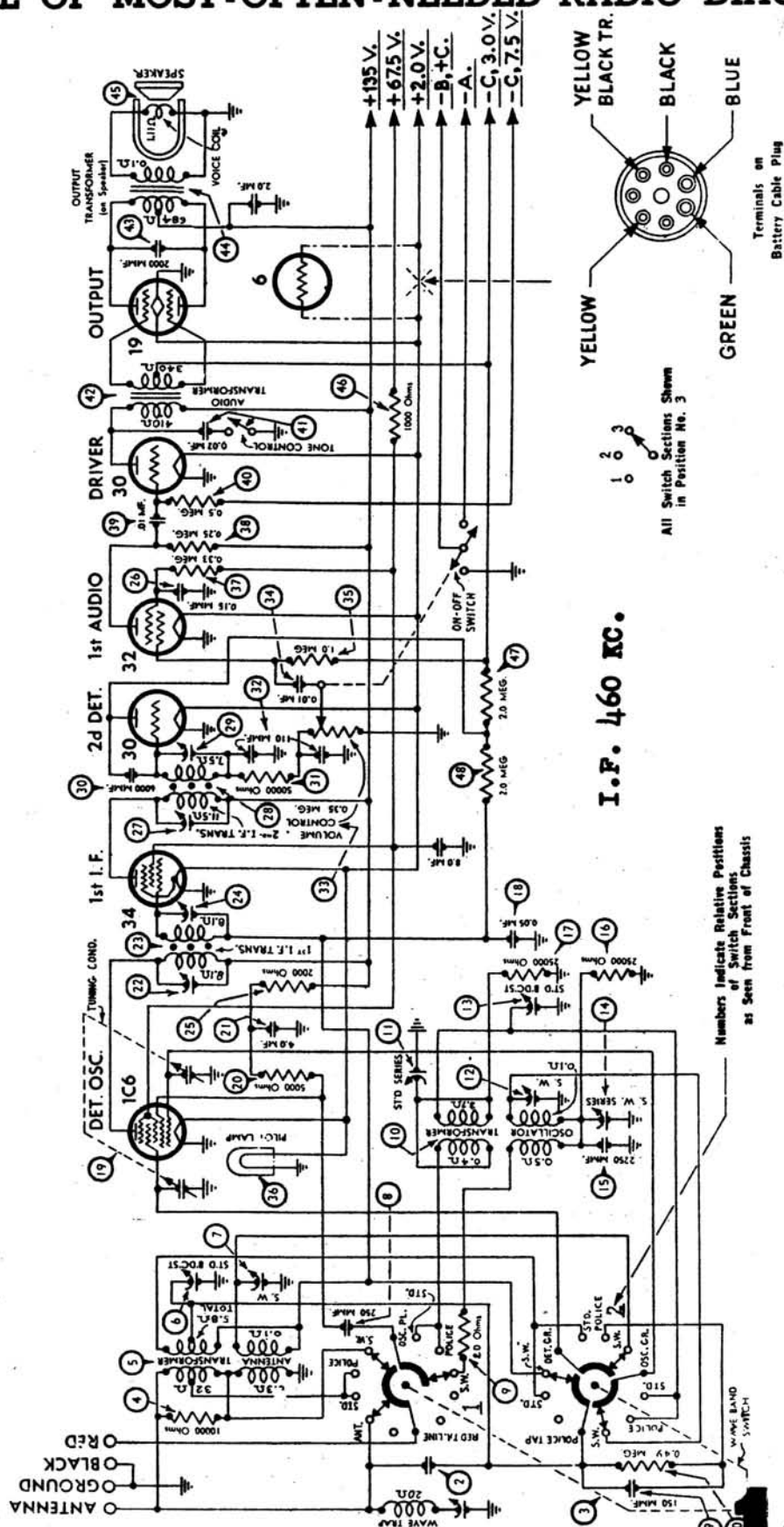
MODEL 620
(Later Production)



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COMPILED BY M. N. BEITMAN, SUPREME PUBLICATIONS

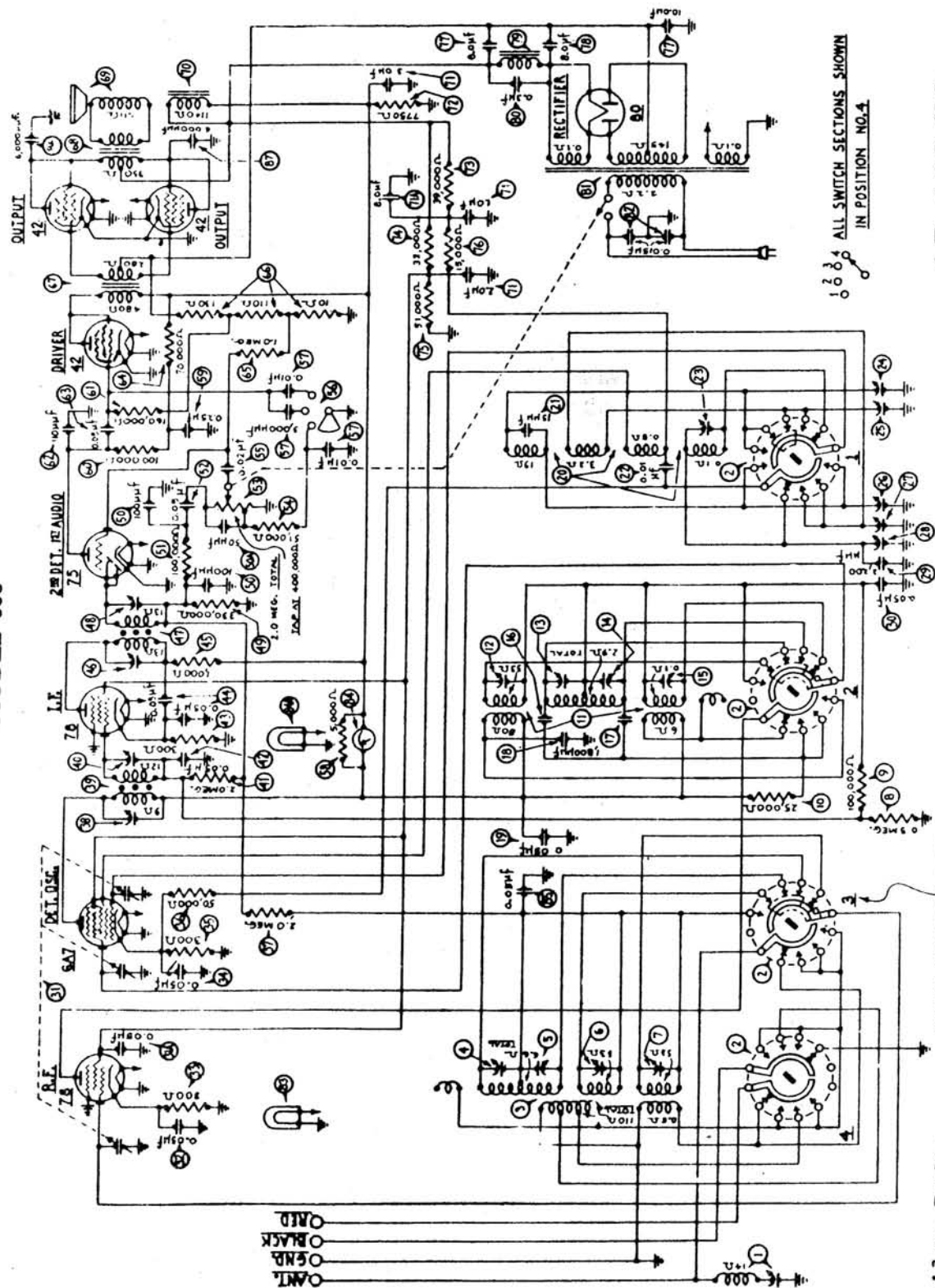
MODEL 623
(Battery Operated)



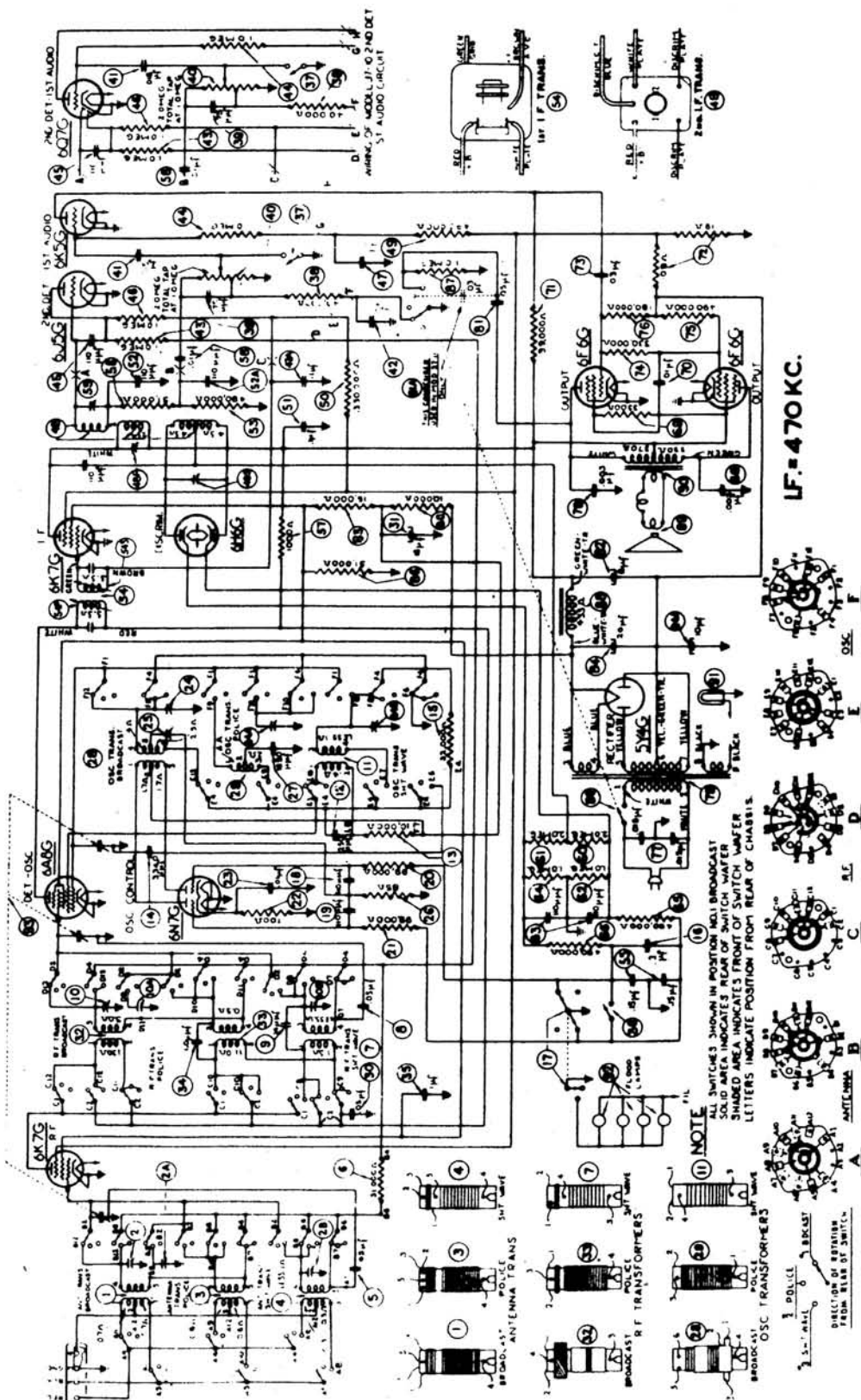
Philco Radio

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

MODEL 650



MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

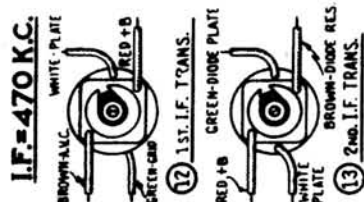


Philco Radio

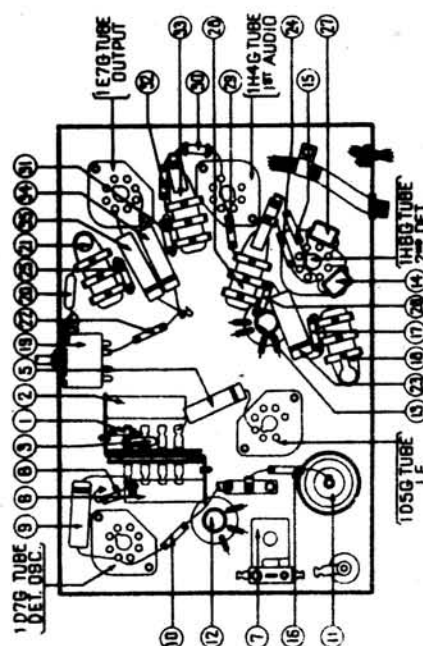
Models 37-10, 37-11

LF=470 KC.

PHILCO *Model 37-33*



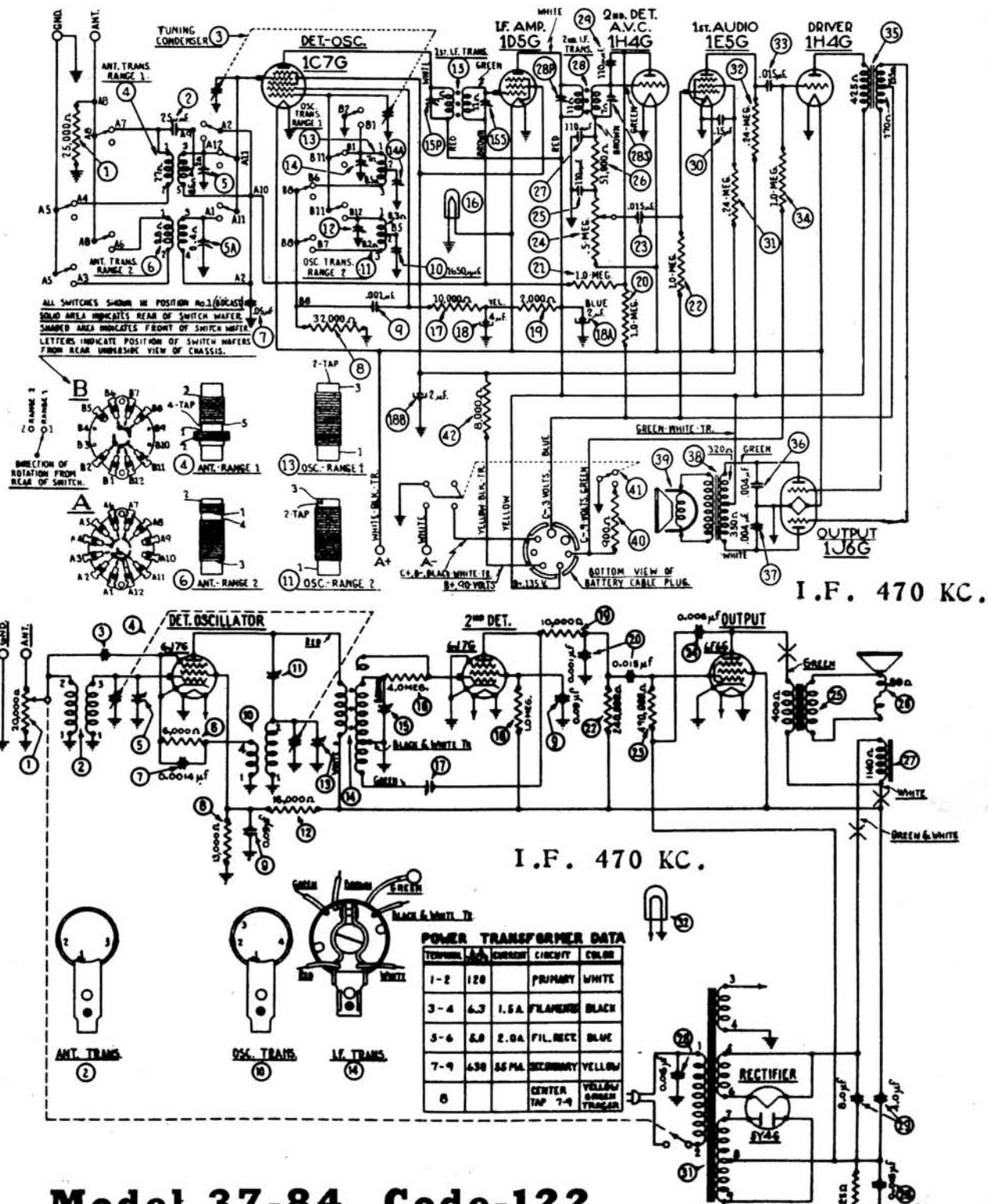
The voltages indicated by arrows were measured with a Philco 25 Circuit Tester which contains a voltmeter having a resistance of 1000 ohms per volt. Volume Control at minimum.



MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

PHILCO

Model 37-38



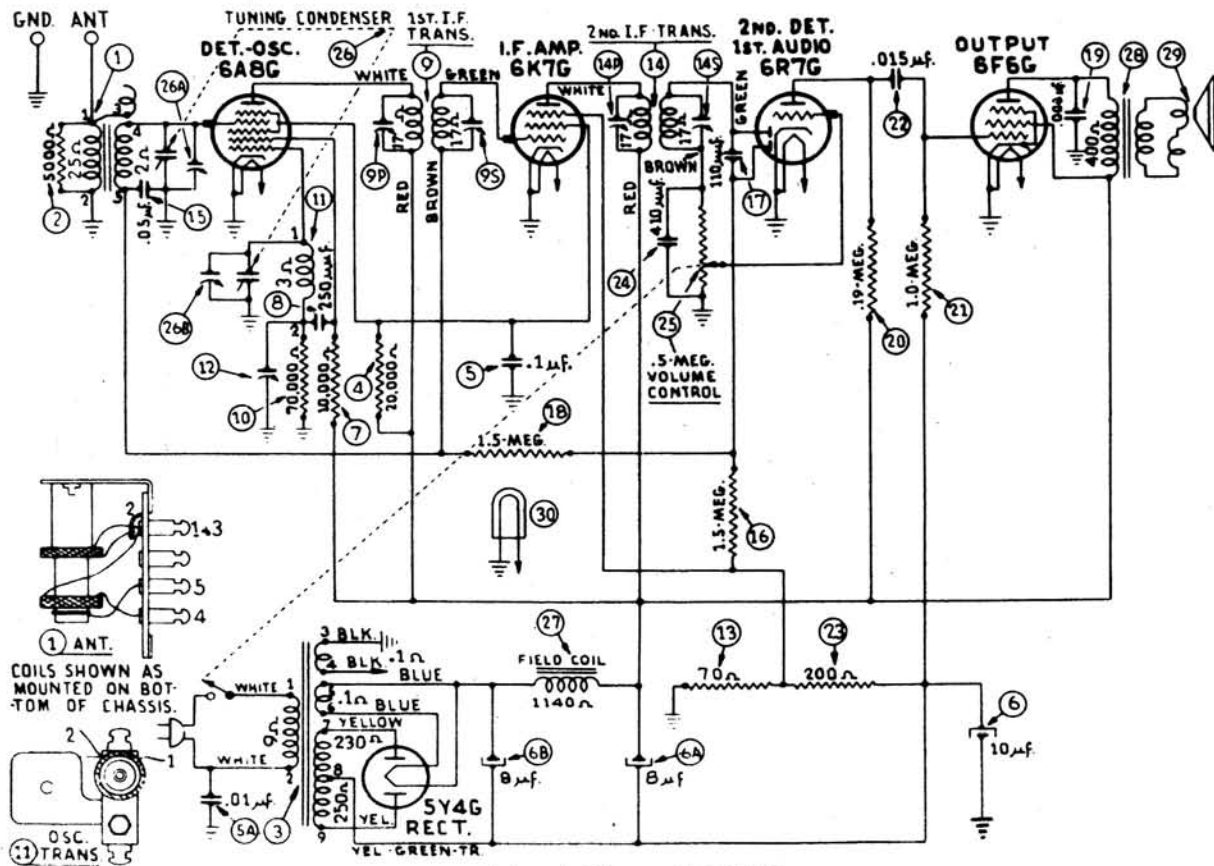
Model 37-84, Code-122

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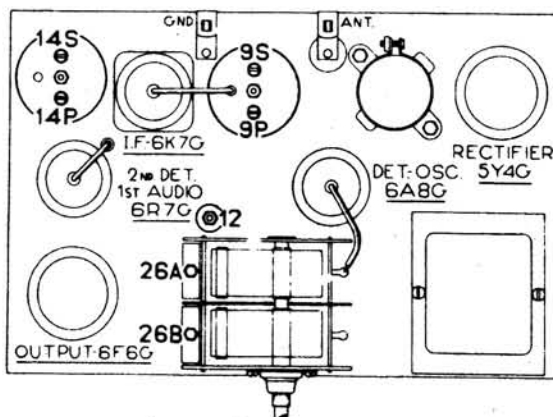
149

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

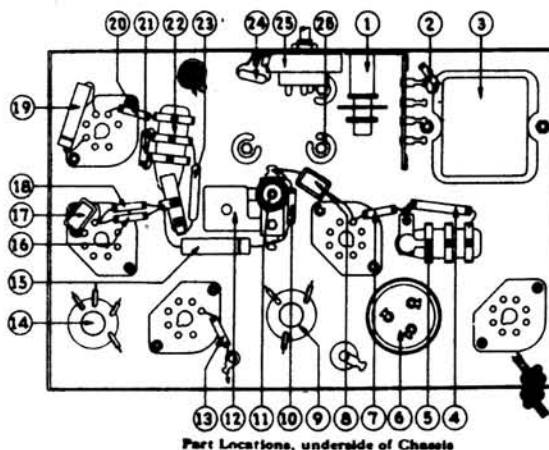
Philco Model 37-93



Schematic Diagram, Model 37-93



Locations of R. F. and I. F. Compensators



Part Locations, underside of chassis

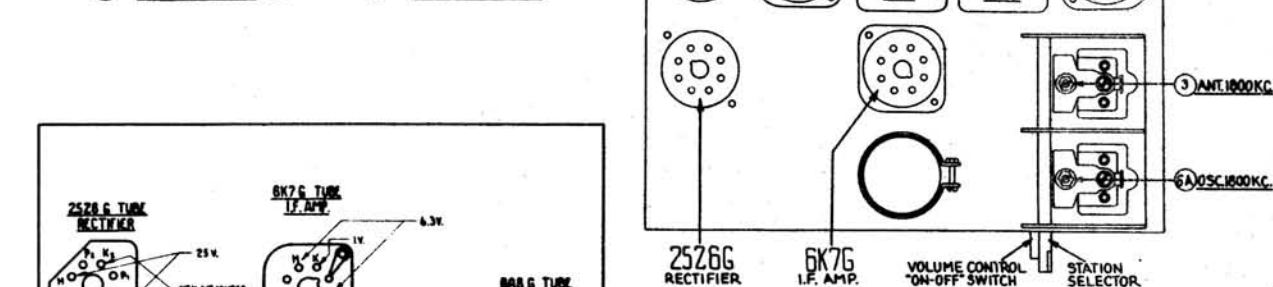
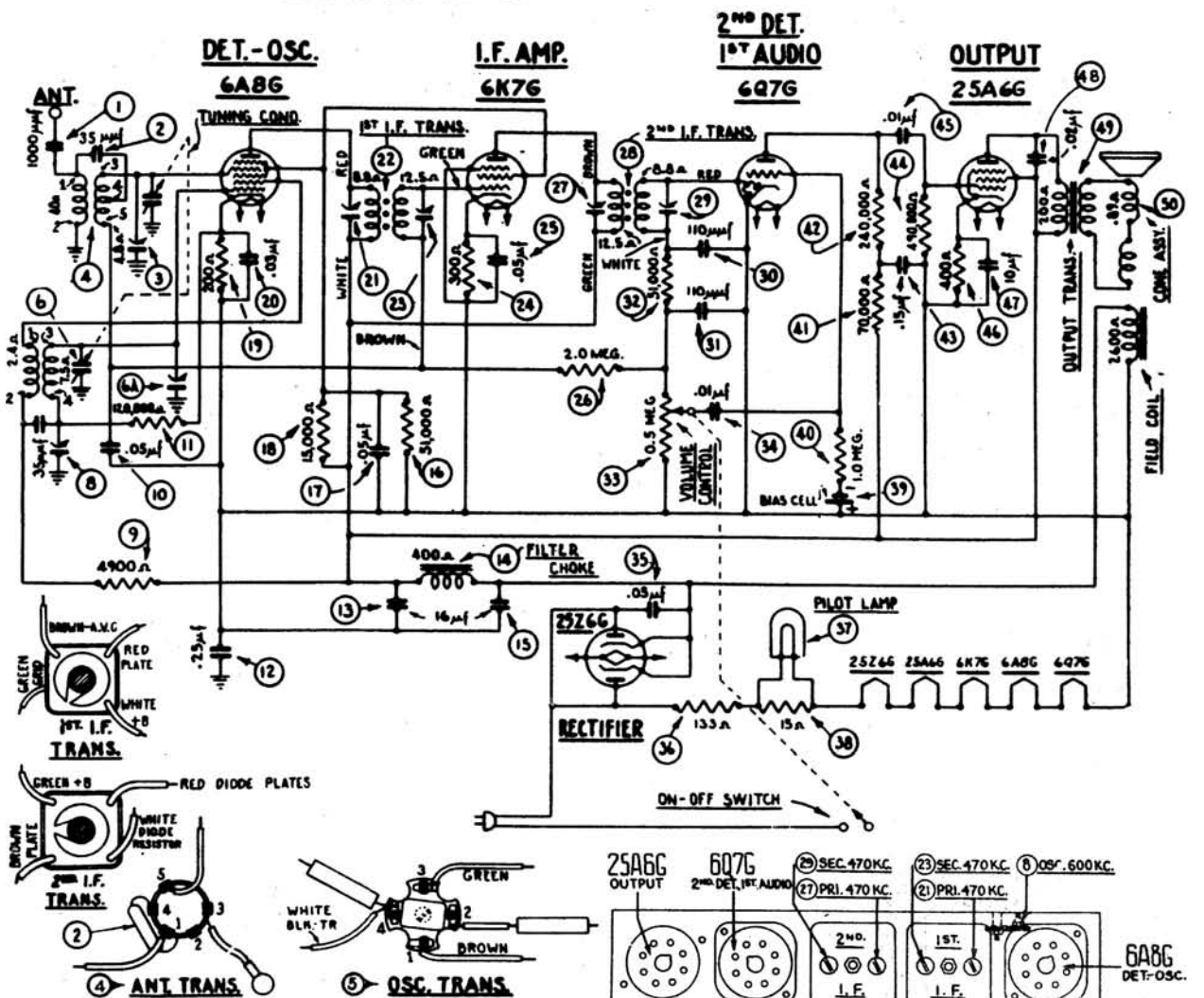
I.F. 470 KC.

150

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MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

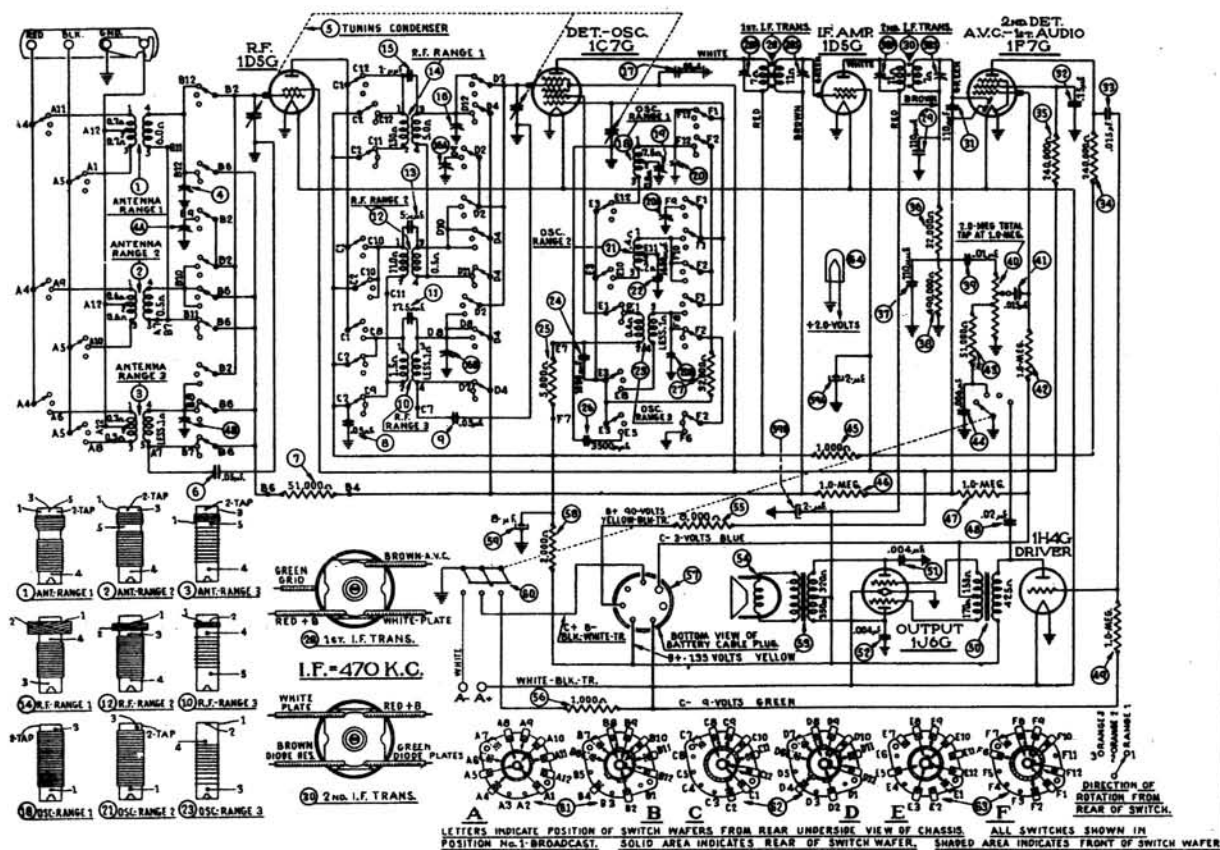
PHILCO Model 37-602



Tube Sockets as viewed from underside of chassis.
(Voltages measured from socket contacts to B—)

TYPE CIRCUIT: Superheterodyne with pentode output.
POWER SUPPLY: 115 V., 25 or 60 cycle, A. C.; D. C.
TUBES USED: 1 type 6A8G, Osc. Det., 1 type 6K7G I.F. Amplifier, 1 type 6Q7G, 2nd Det. 1st audio, 1 type 25A6G output, 1 type 25Z6G rectifier.
FREQUENCY RANGE: 530-1800 K.C.
INTERMEDIATE FREQUENCY: 470 K.C.
CURRENT CONSUMPTION: 55 watts.
SPEAKER: B-4.
POWER OUTPUT: ¾ watt.

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

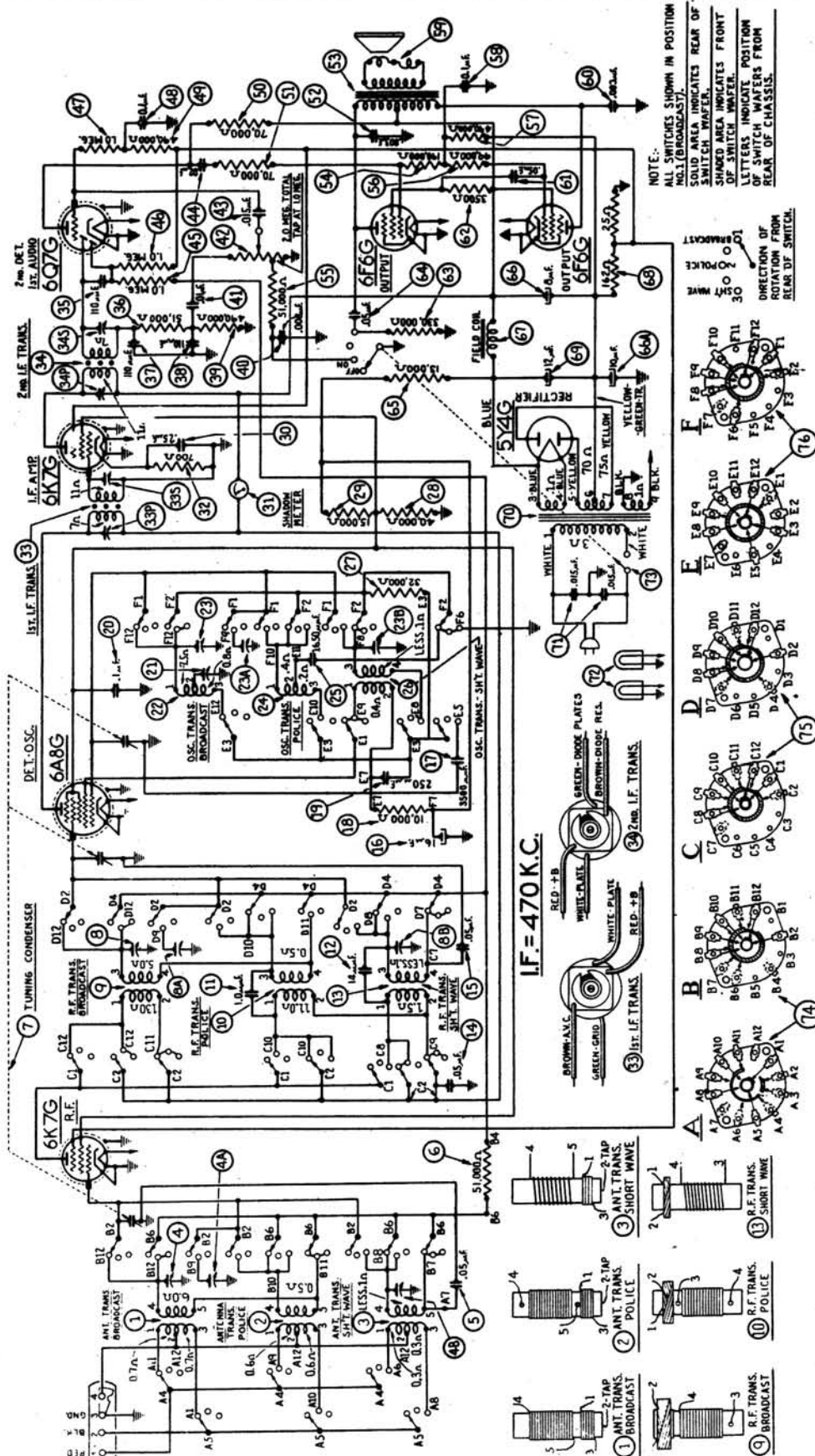


Philco Radio

Replacement Parts—Model 37-623

Schem. No.	Description	Part No.	Schem. No.	Description	Part No.	Schem. No.	Description	Part No.
1	Antenna Transformer (530-1720 K.C.)	32-2108	45	Resistor (1,000 ohms, 1/2 watt)	33-210339		Spring (Vol. Shaft)	28-4117
2	Antenna Transformer (2.3 to 7.4 M.C.)	32-2119	46	Resistor (1 megohm, 1/2 watt)	33-510339		Socket (8 prong)	27-0058
3	Antenna Transformer (7.35 to 22 M.C.)	32-2109	47	Resistor (1 megohm, 1/2 watt)	33-510339		Socket (7 prong)	27-0057
4	Compensator (Three Sections)	31-6092	48	Condenser (.02 mfd. Tubular)	30-4113		Shield Tube	28-2726
5	Tuning Condenser	31-1818	49	Resistor (1 megohm, 1/2 watt)	33-510339		Base Tube Shield	28-3898
6	Condenser (.05 mfd. Tubular)	30-4020	50	Audio Input Transformer	32-7637		Grommet Mfg. R. F. Unit	27-4317
7	Resistor (51.00 ohms, 1/2 watt)	33-351339	51	Condenser (.004 mfd. Tubular)	30-4456		Sleeve Mfg. R. F. Unit	28-2257
8	Condenser (.05 mfd. Tubular)	30-4020	52	Condenser (.004 mfd. Tubular)	30-4456		Screw Mfg. R. F. Unit	W-729
9	Condenser (.05 mfd. Tubular)	30-4020	53	Output Transformer	32-7638		Washer Mfg. R. F. Unit	28-3927
10	R. F. Transformer (7.35 to 22 M.C.)	32-2126	54	Cone and Voice Coil Assembly KR-17	36-3540		Washer Mfg. R. F. Unit	27-8339
11	Condenser (17.5 mmfd. Mica)	30-1079		Cone and Voice Coil Assembly HR-12	36-3567		Rubber Mfg. Tuning Condenser	27-4335
12	R. F. Transformer (2.3 to 7.4 M.C.)	32-2106	55	Resistor (8,000 ohm, 1/2 watt)	32-280339		Mtg. Plate (Trans.)	28-3366
13	Condenser (5 mmfd. Mica)	30-1080	56	Resistor (1,000 ohms, 1/2 watt)	32-210339		Mtg. Screw (Trans.)	27-8228
14	R. F. Transformer (530-1720 K.C.)	32-2105	57	Cable Battery	41-3131		Terminal Panel I. F. Unit	38-7703
15	Condenser (Twist wire and lug)	38-7878	58	Resistor (2,000 ohms, 1/2 watt)	32-210339		Cable Speaker	41-3207
16	Compensator (Three section)	31-1621	59	Electrolytic Condenser (2, 2, 5 mfd.)	30-2181		Mtg. Bolt (Chassis)	W-1495
17	Condenser (.05 mfd. Tubular)	30-4020	60	Power and Tone Control Switch	42-1207		Mtg. Rubbers	5189
18	Oscillator Transformer (530-1720 K.C.)	32-2130	61	Range Switch (ANT)	42-1200		Mtg. Bushing	27-4360
19	Compensator (580 K.C.)	31-6056	62	Range Switch (R.F.)	42-1245		Knob	27-4330
20	Compensator (Three section)	31-6062	63	Range Switch (Osc.)	42-1246		Knob	27-4333
21	Oscillator Transformer (2.3 to 7.4 M.C.)	32-2121		Pilot Lamp Assembly	38-7875		Knob	27-4326
22	Condenser (1650 mmfd.)	31-6096		Pilot Lamp	34-2150		Knob	27-4332
23	Oscillator Transformer (7.35 to 22 M.C.)	32-2110		Vernier Drive Assembly	31-1871		"B" Battery	41-8007
24	Condenser (1,000 mmfd. Mica)	30-4453		Dial	27-5214		"A" Battery (Wet)	172R
25	Resistor (5,000 ohms, 1/2 watt)	33-250393		Dial Hub	28-7187		"A" Battery (Dry)	41-8011
26	Condenser (3,500 mmfd. Semifixed)	31-6097		Dial Clamp	28-2837		Ballast Lamp	40-5939
27	Resistor (32,000 ohms, 1/2 watt)	33-323339		Dial Guard	27-8324		Bezel Plate and Frame	27-4331
28	First I. F. Transformer	32-2100		Set Screw	W-1641		Gasket	27-2398
29	Condenser (110 mmfd. Mica)	30-1031		Gear (Dial)	28-7185		Glass	28-3967
30	Second I. F. Transformer	32-2102		Thrust Spring	28-8611		Ring	W-1644
31	Condenser (110 mmfd. Mica)	30-1041		Thrust Washer	28-3978			
32	Condenser (.15 mfd. Bakelite)	6287SG		C Washer	28-3604			
33	Condenser (.015 mfd. Tubular)	30-4226		Gear (Drive)	31-1834			
34	Resistor (240,000 ohms, 1/2 watt)	33-424339		Mask	31-5198			
35	Resistor (240,000 ohms, 1/2 watt)	33-424339		Mask Arm and Assembly	31-1940			
36	Resistor (32,000 ohms, 1/2 watt)	33-323339		Shaft Coupling (Mask)	31-1941			
37	Condenser (110 mmfd. Mica)	30-1031		Felt Washers	27-8399			
38	Resistor (490,000 ohms, 1/2 watt)	33-449339		Washer	27-8318			
39	Condenser (.01 mfd. Tubular)	30-4124		Snap Fastener	28-4279			
40	Volume Control	33-5158		Indicator Bracket and Lens Assembly	38-7912			
41	Condenser (.015 mfd. Tubular)	30-4358		Mask Guide and Lamp Support	38-7844			
42	Resistor (1 megohm, 1/2 watt)	33-510339		Shaft and Index Plate (Range Switch)	42-1173			
43	Resistor (51,000 ohms, 1/2 watt)	33-351339		Shaft (Volume Control)	38-8069			
44	Condenser (.006 mfd. Tubular)	30-4125		Retaining Clip (Vol. Shaft)	28-4394			
							B CABINET	
							Baffle and Silk Assembly	40-5970
							Speaker—KR17	36-1248
							J CABINET	
							Speaker—HR12	36-1250
							Baffle and Silk Assembly	40-5971
							Speaker	36-1250
							Speaker Ring	27-8016
							Speaker Bolts	W-1699

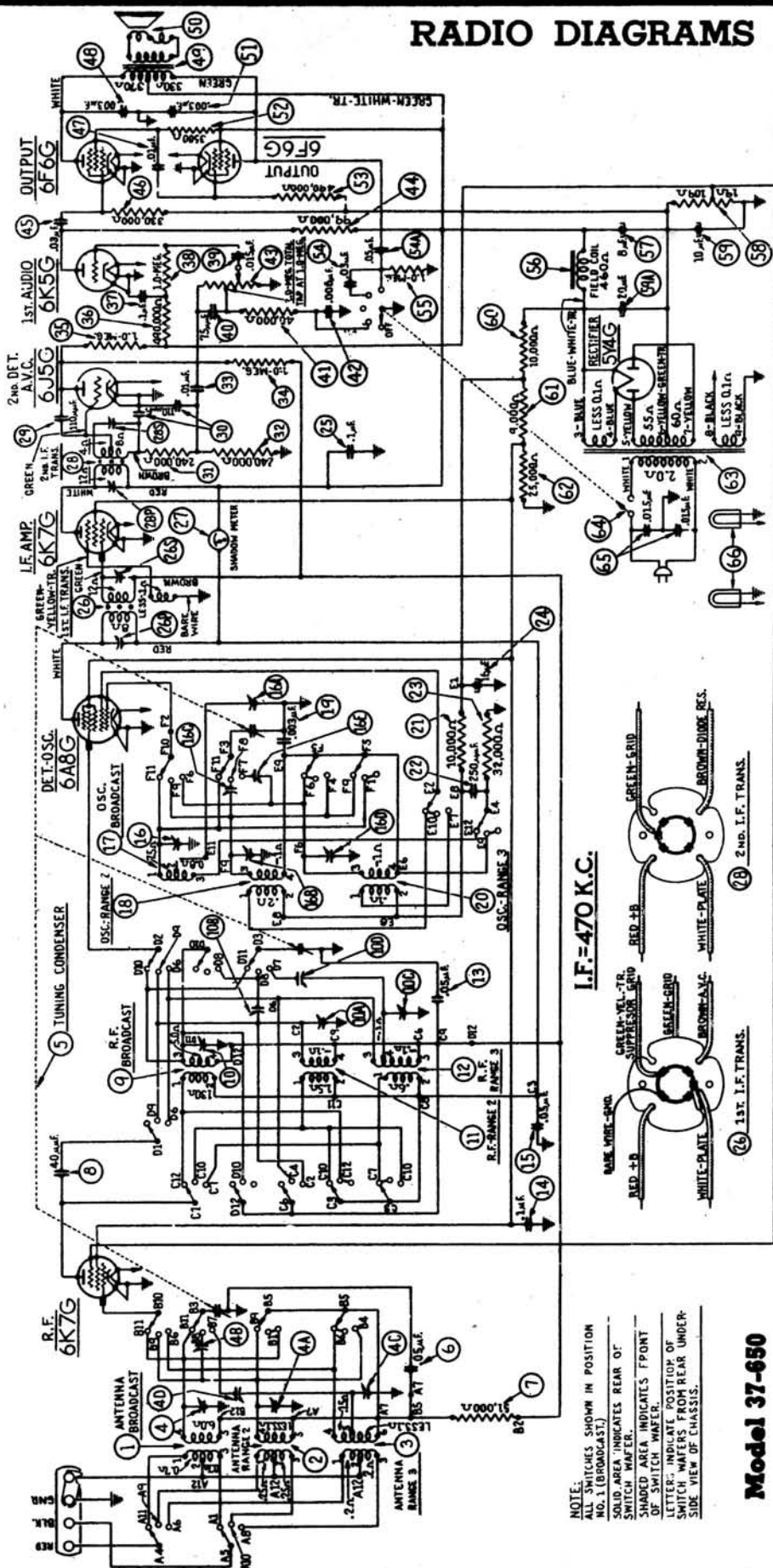
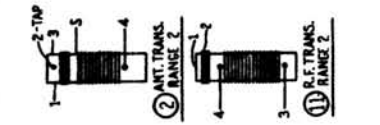
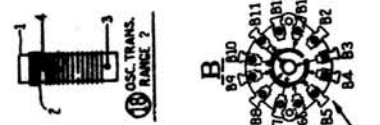
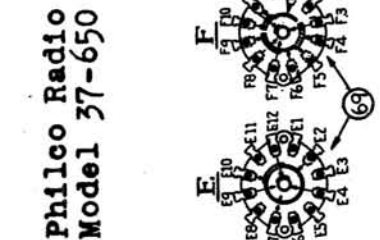
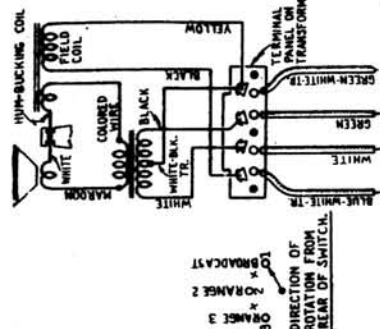
PHILCO

Model 37-640

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Philco Radio Model 37-650

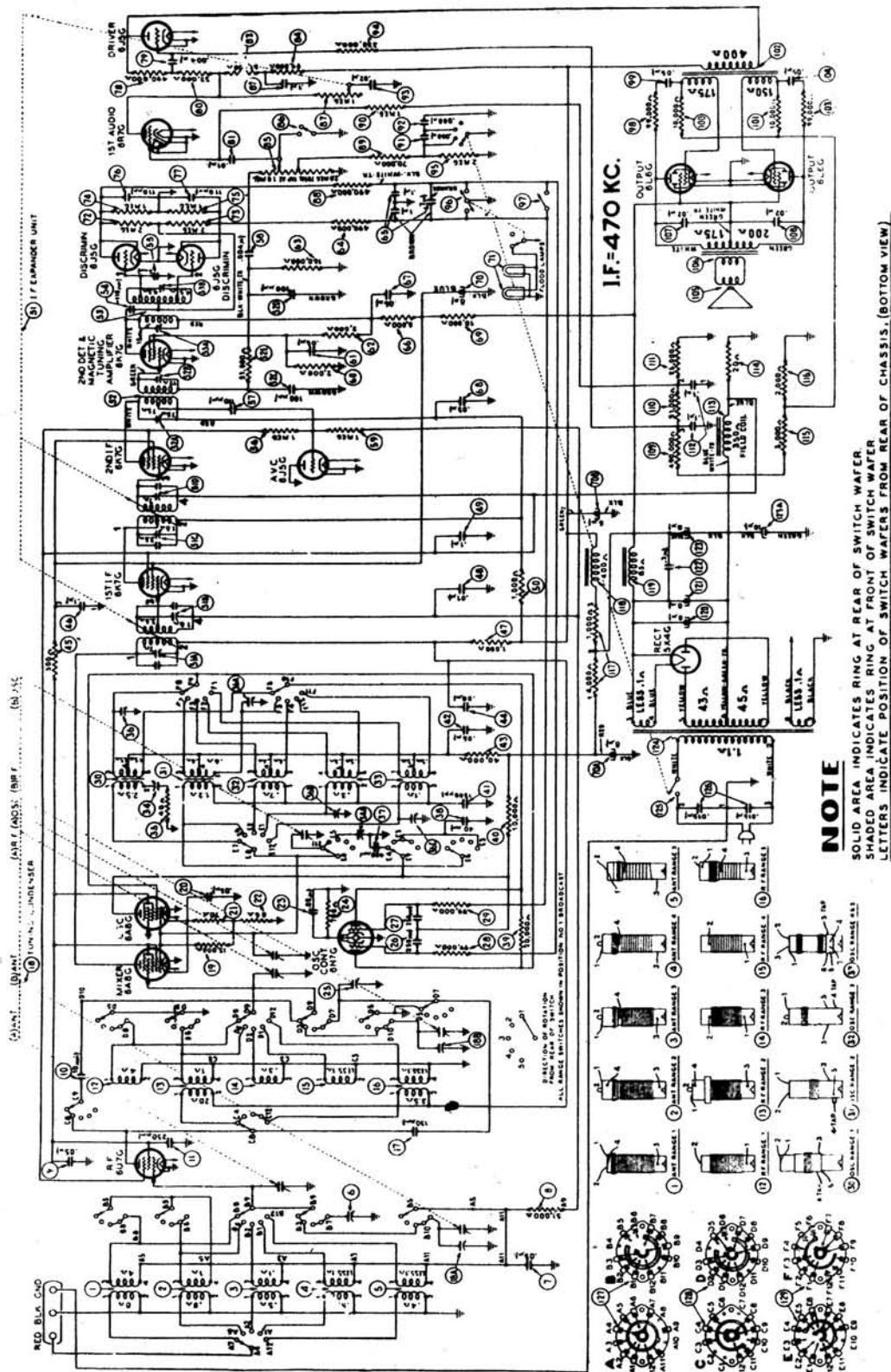


NOTE:
ALL SWITCHES SHOWN IN POSITION
NO. 1 (BROADCAST).
SOLID AREA INDICATES REAR OF
SWITCH WAFER.
SHADE AREA INDICATES FRONT
OF SWITCH WAFER.
LETTER-INDICATE POSITION OF
SWITCH CONTACT REAR UNDER-
SIDE VIEW OF CHASSIS.

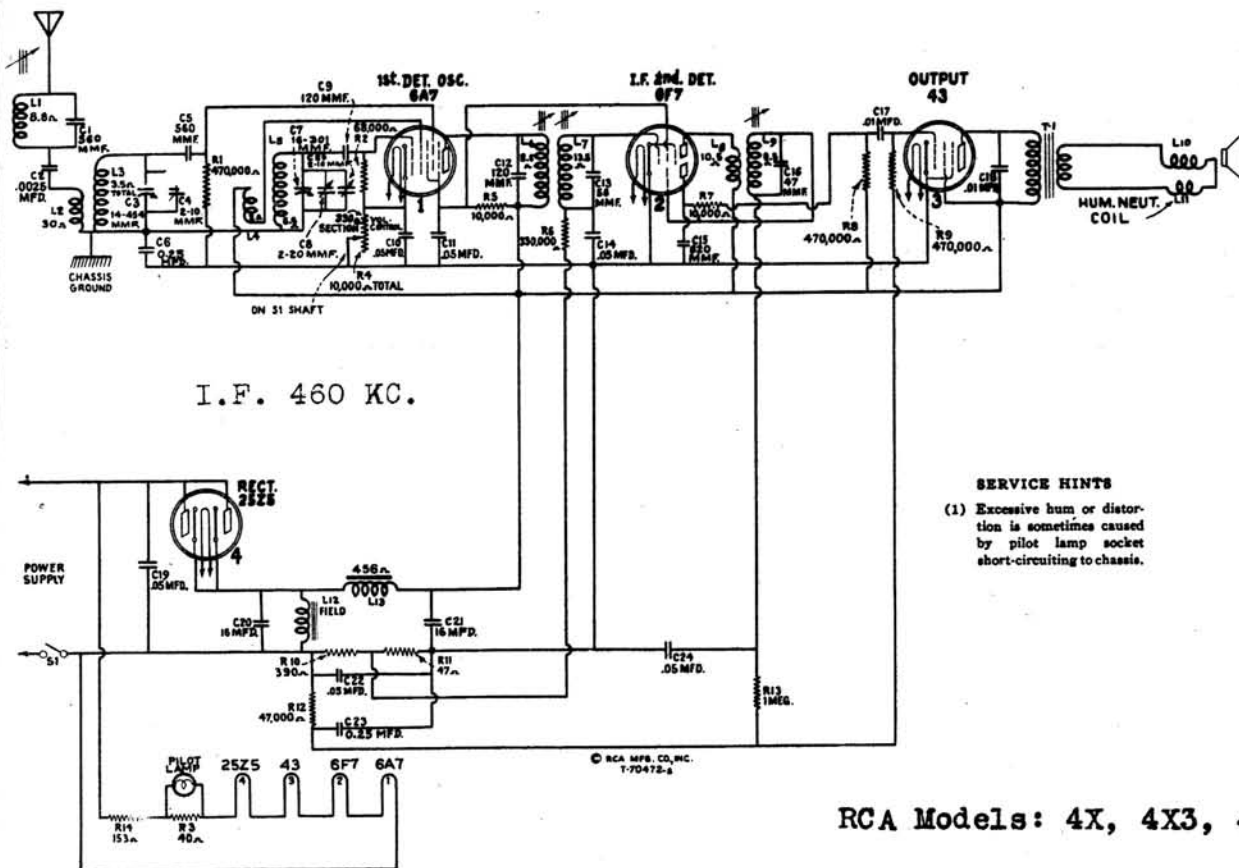
Model 37-650

Model 38-116, Code 121

PHILCO



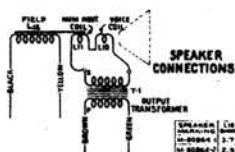
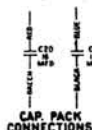
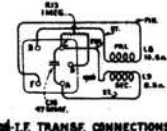
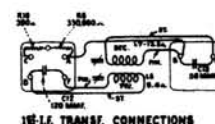
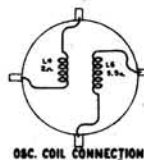
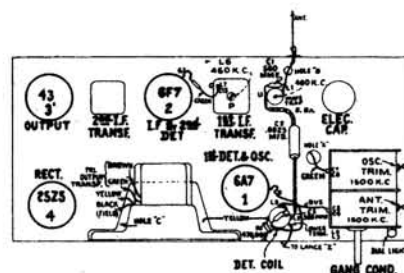
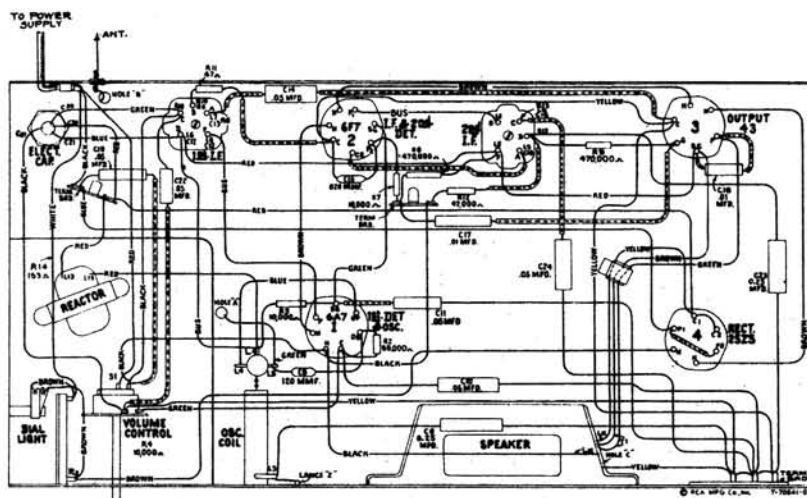
MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



SERVICE HINTS

- (1) Excessive hum or distortion is sometimes caused by pilot lamp socket short-circuiting to chassis.

Schematic Circuit Diagram

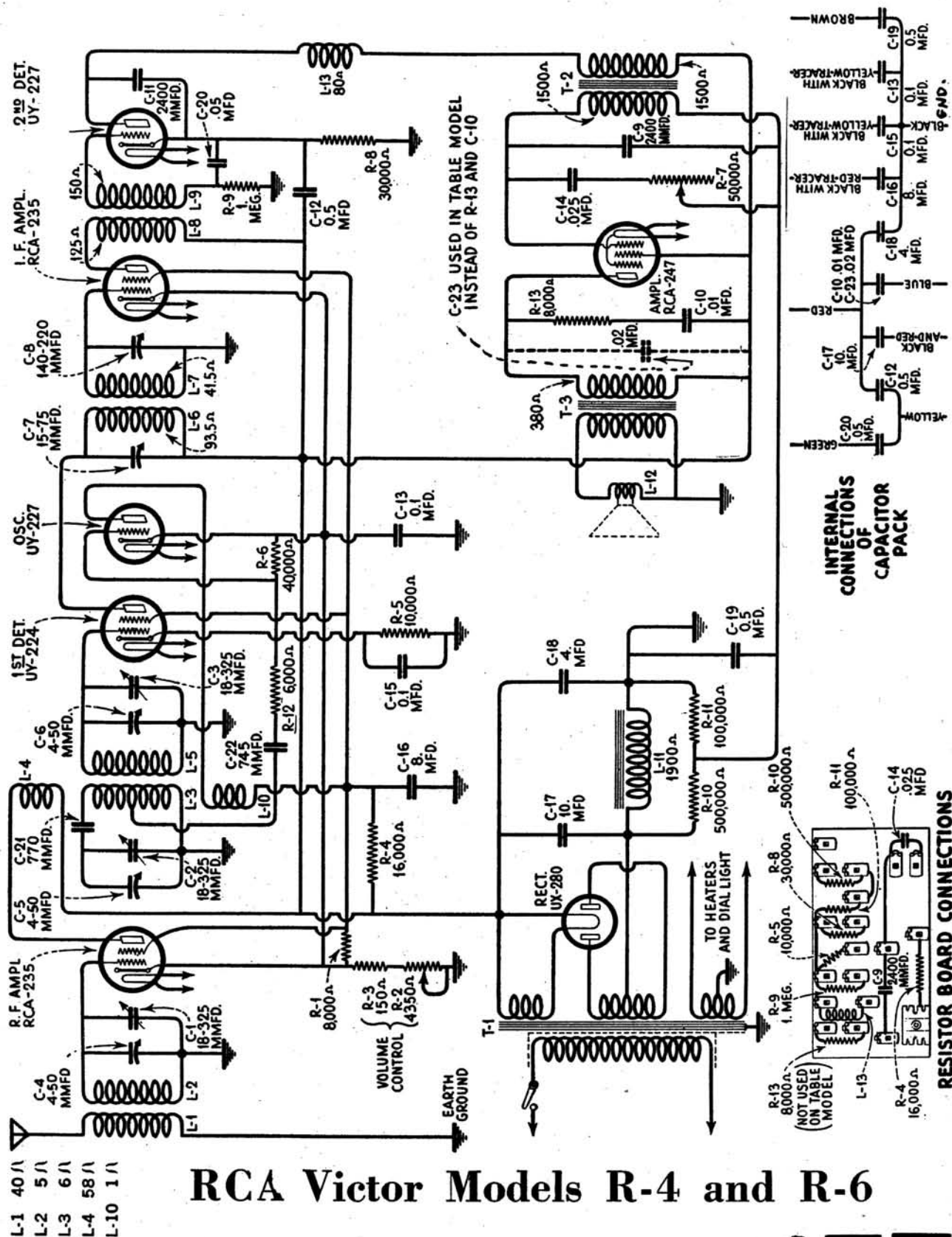


DET. COIL CONNECTIONS

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Chassis Wiring Diagram, Radiotron, Coil, and Trimmer Locations
COMPILED BY M. N. BEITMAN, SUPREME PUBLICATIONS

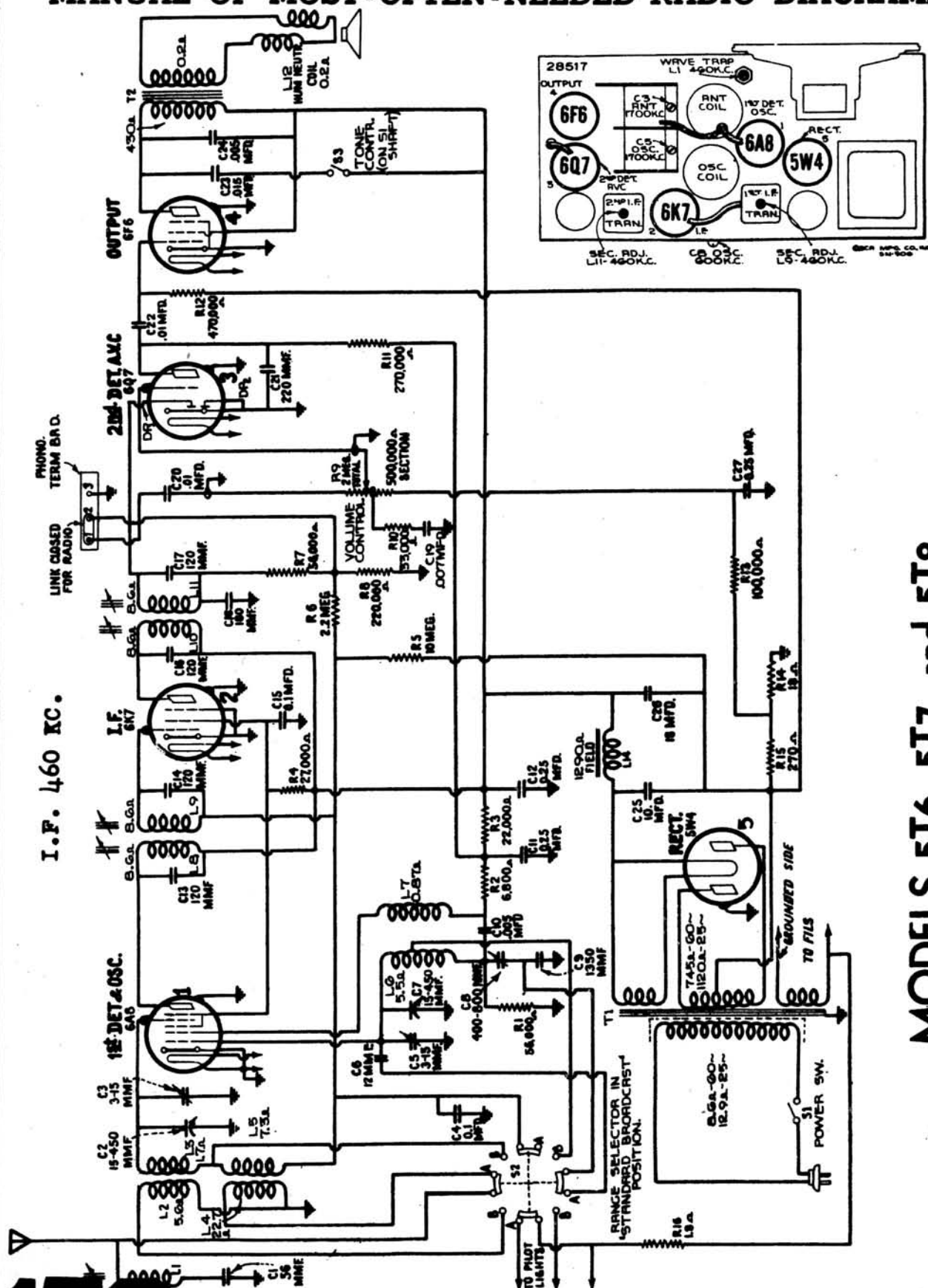
MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



RCA Victor Models R-4 and R-6

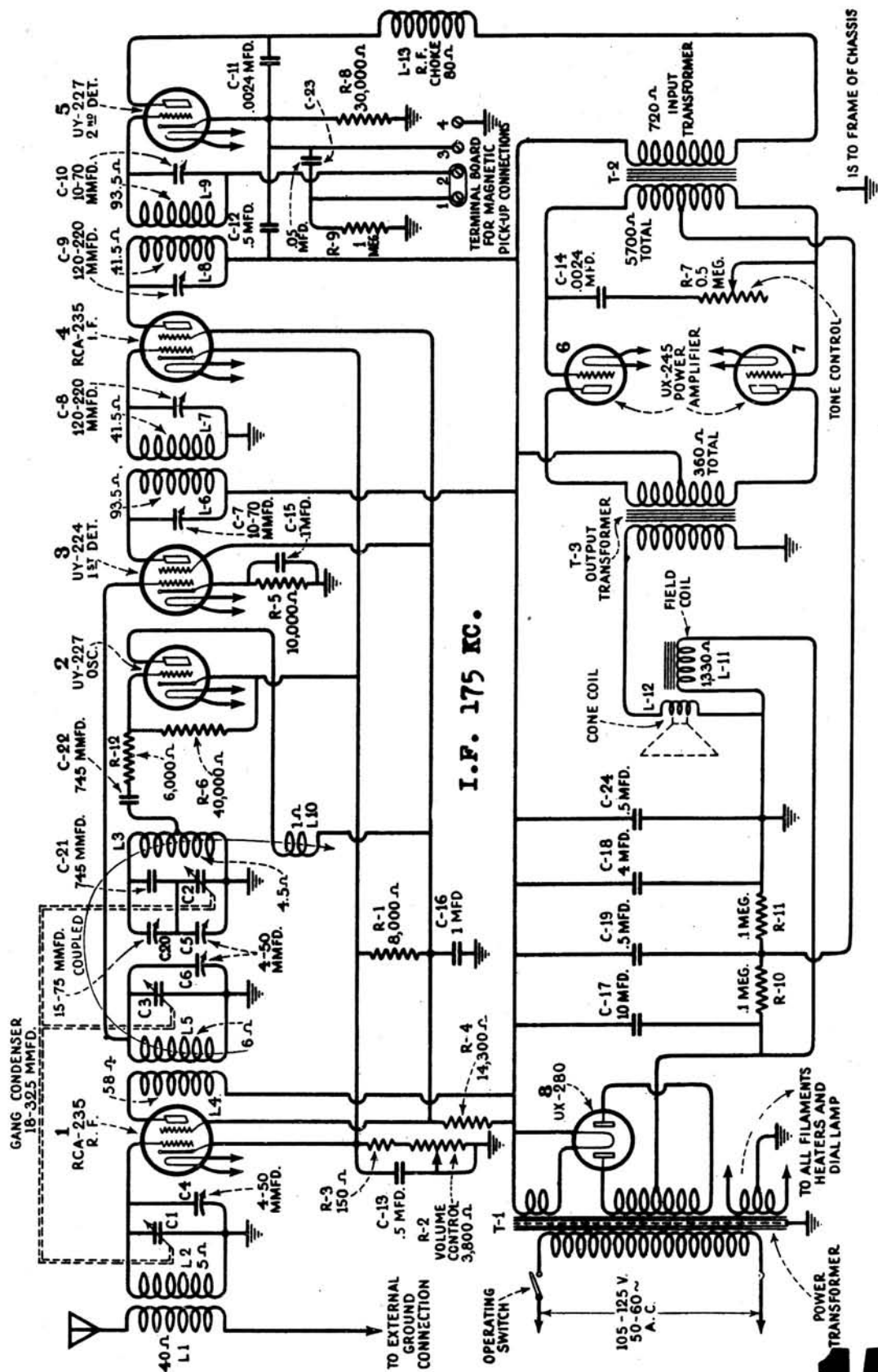
MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

I.F. 460 KC.



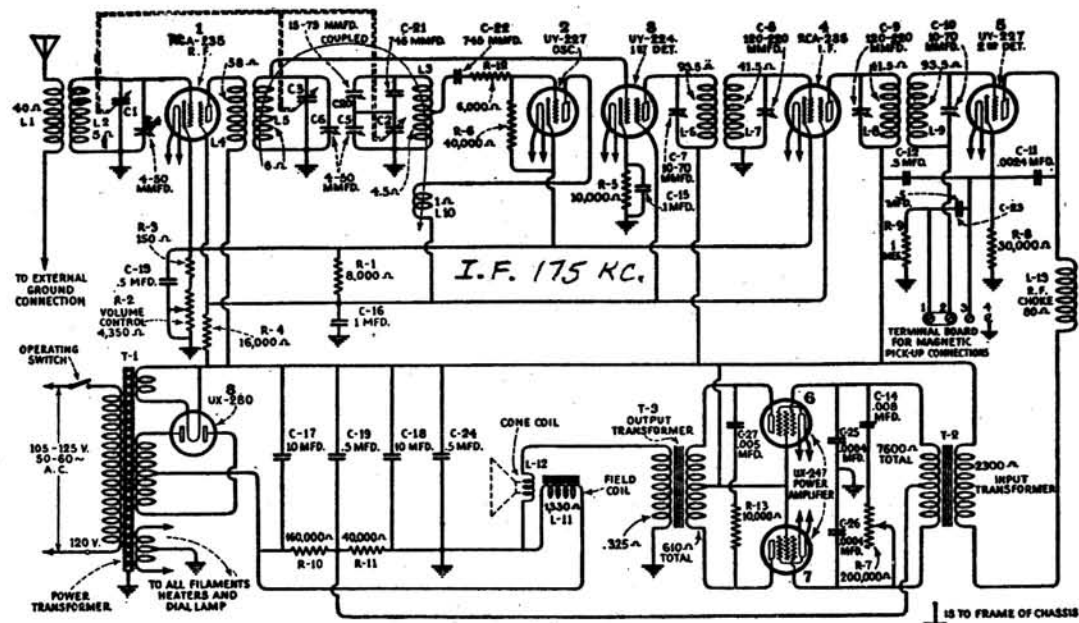
MODELS 5T6, 5T7, and 5T8

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



R.C.A. R-7, R-9

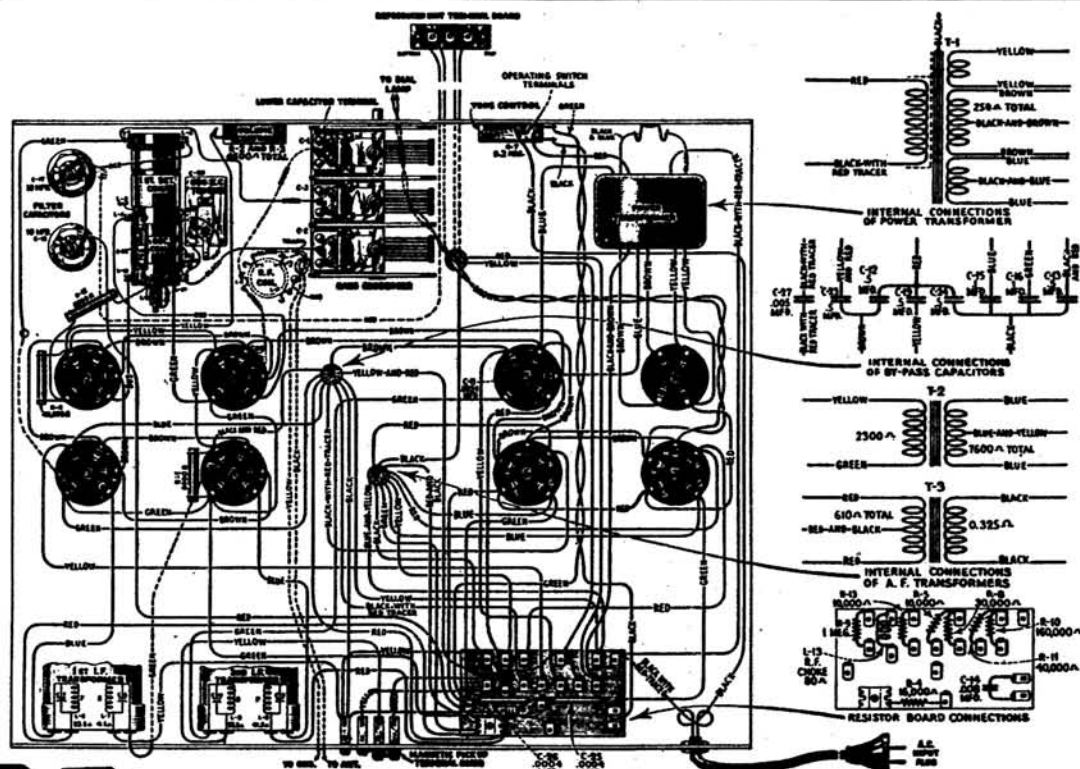
MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



RCA Model R-7A

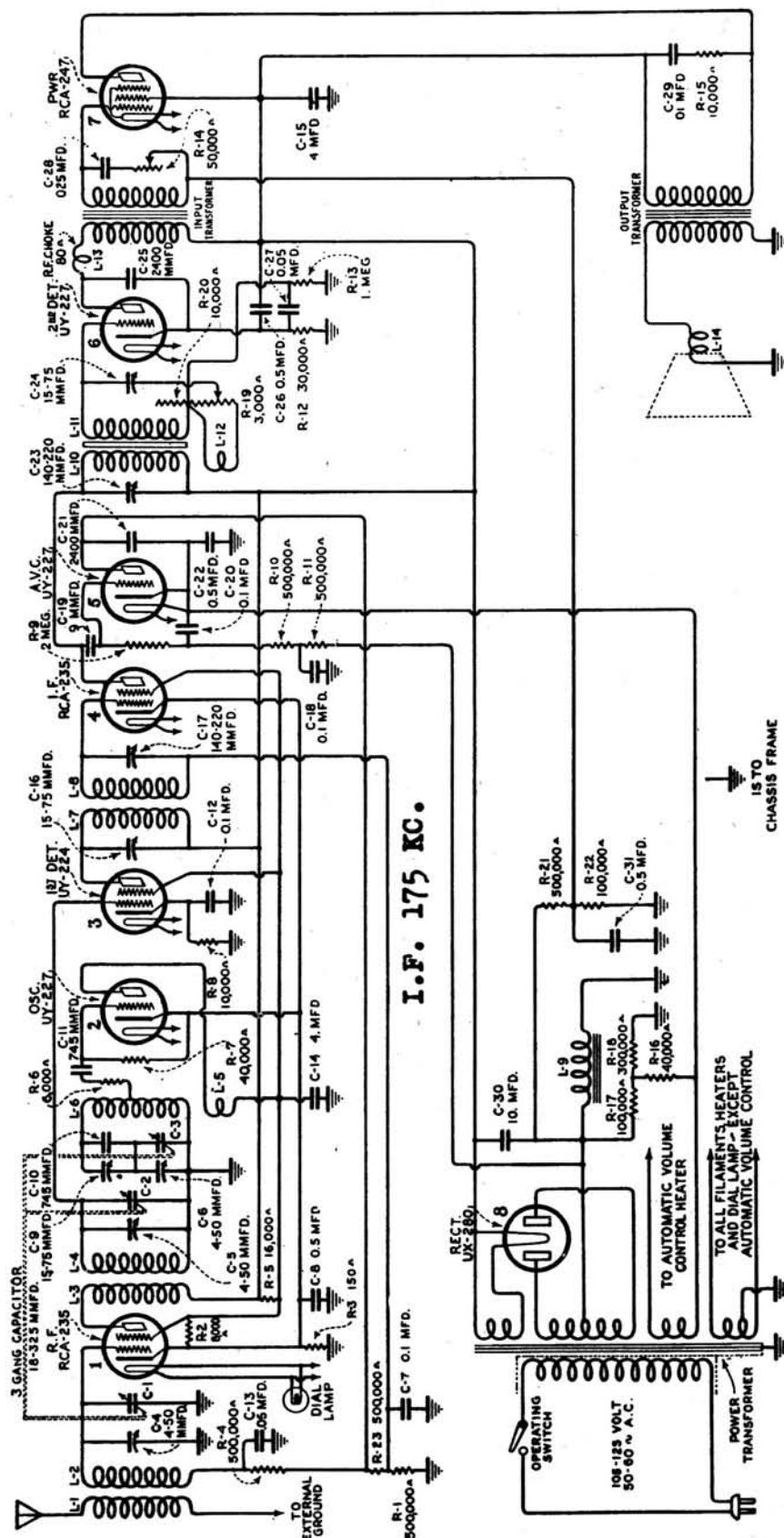
Schematic Diagram
SOCKET VOLTAGES—110 VOLT A. C. LINE

Radiotron No.	Cathode to Heater Volts D. C.	Cathode or Filament to Control Grid Volts D. C.	Cathode to Screen Grid Volts D. C.	Cathode or Filament to Plate Volts D.C.	Plate Current M. A.	Heater or Filament Volts A. C.	Radiotron No.	Cathode to Heater Volts D. C.	Cathode or Filament to Control Grid Volts D. C.	Cathode to Screen Grid Volts D. C.	Cathode or Filament to Plate Volts D.C.	Plate Current M. A.	Heater or Filament Volts A. C.
VOLUME CONTROL AT MINIMUM							VOLUME CONTROL AT MAXIMUM						
1	38	35	50	200	.0	2.2	1	2.0	2.5	60	235	3.5	2.2
2	38	0	—	50	3.5	2.2	2	2.0	.0	—	50	4.5	2.2
3	7	6	80	235	0.5	2.2	3	4.0	4.0	55	230	0.5	2.2
4	38	35	50	200	.0	2.2	4	2.0	2.5	58	235	3.5	2.2
5	22	8	—	210	0.7	2.2	5	22	8	—	210	0.7	2.2
6	—	12	225	220	30	2.2	6	—	12	225	220	30	2.2
7	—	12	225	220	30	2.2	7	—	12	225	220	30	2.2



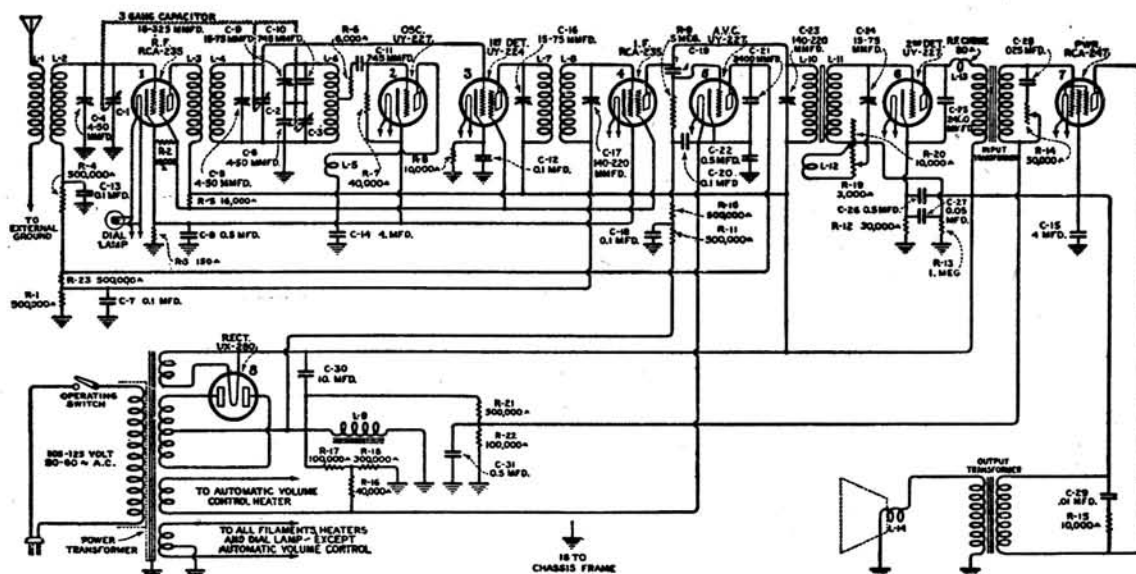
MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

RCA Models R-8, R-12 AC



Radiotron No.	Cathode to Heater Volts, D. C.	Cathode or Filament to Screen Grid Volts, D. C.	Cathode or Filament to Plate Volts, D. C.	Plate Current M. A.	Screen Current M. A.	Heater or Filament Volts, A. C.
1. R. F.	4.0	0.5	70	4.0	0.5	2.66
2. Osc.	4.0	0	—	6.0	—	2.66
3. 1st Det.	7.0	6.0	70	0.75	0.1	2.66
4. I. F.	4.0	4.0	260	4.0	0.5	2.66
5. 2nd Det.	28.0	10.0	—	1.0	—	2.66
6. A. V. C.	0	0	25	0	—	2.66
7. Power	—	10.0	280	35.0	—	2.66

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



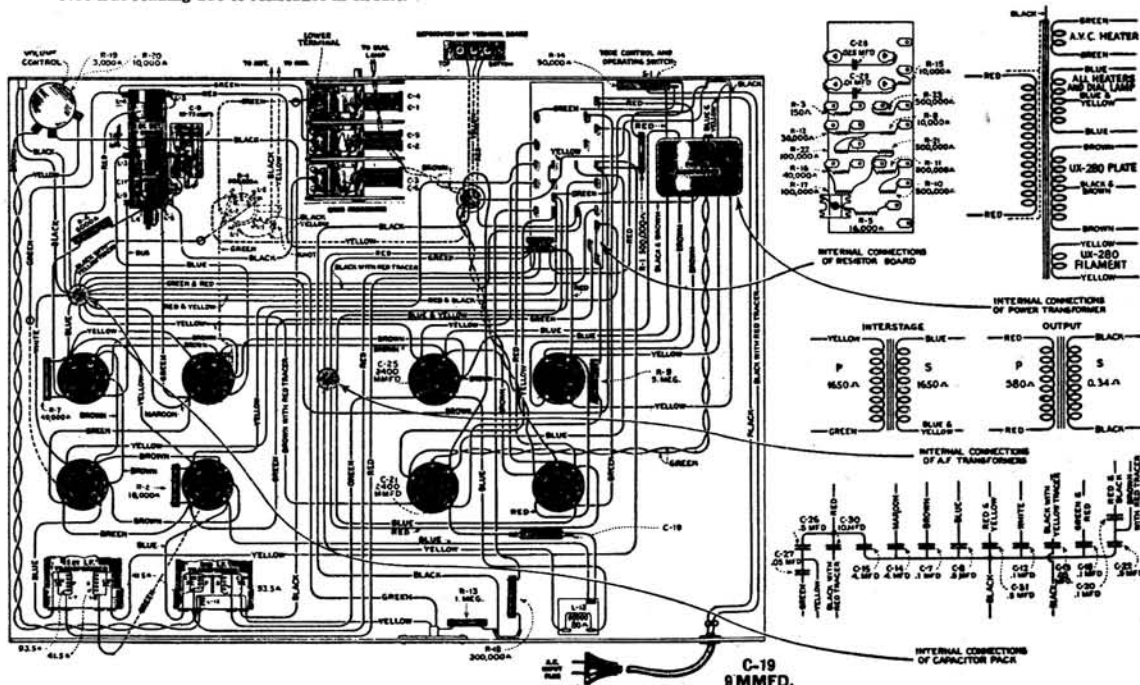
RCA Victor

Schematic Wiring Diagram R-10

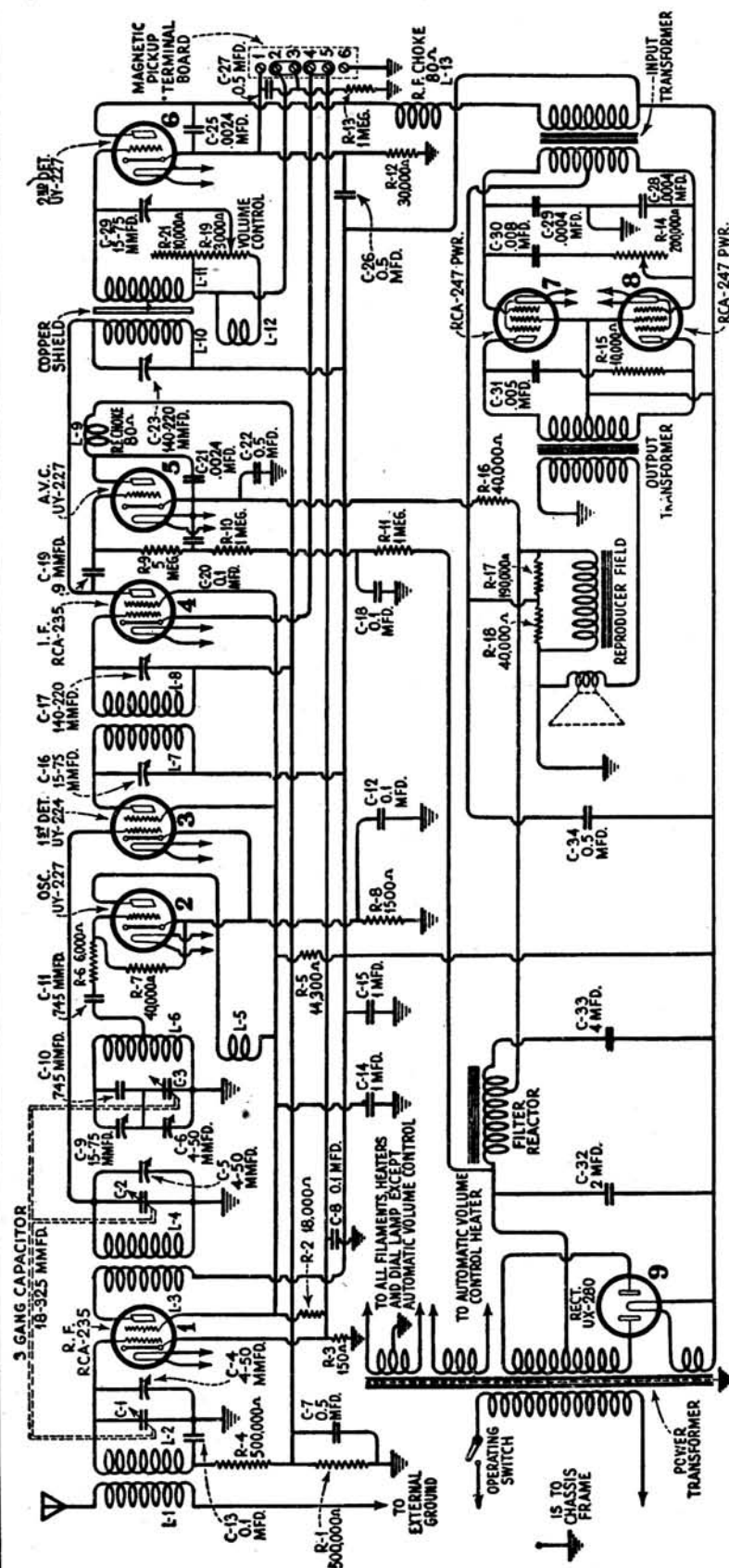
I.F. 175 KC.

Radiotron No.	Cathode to Heater Volts, D. C.	Cathode or Filament to Control Grid Volts, D. C.	Cathode or Filament to Screen Grid Volts, D. C.	Cathode or Filament to Plate Volts, D. C.	Plate Current M. A.	Screen Current M. A.	Heater or Filament Volts, A. C.
1	2	*0.1	75	210	5.0	0.5	2.2
2	8	0	—	60	5.0	—	2.2
3	7	7.0	70	205	0.5	0.1	2.2
4	2	*0.1	75	210	5.0	0.5	2.2
5	0	0	—	30	0	—	2.2
6	20	*8.0	—	185	0.5	—	2.2
7	—	10	210	210	25	—	2.2

*Not true reading due to resistance in circuit.



MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



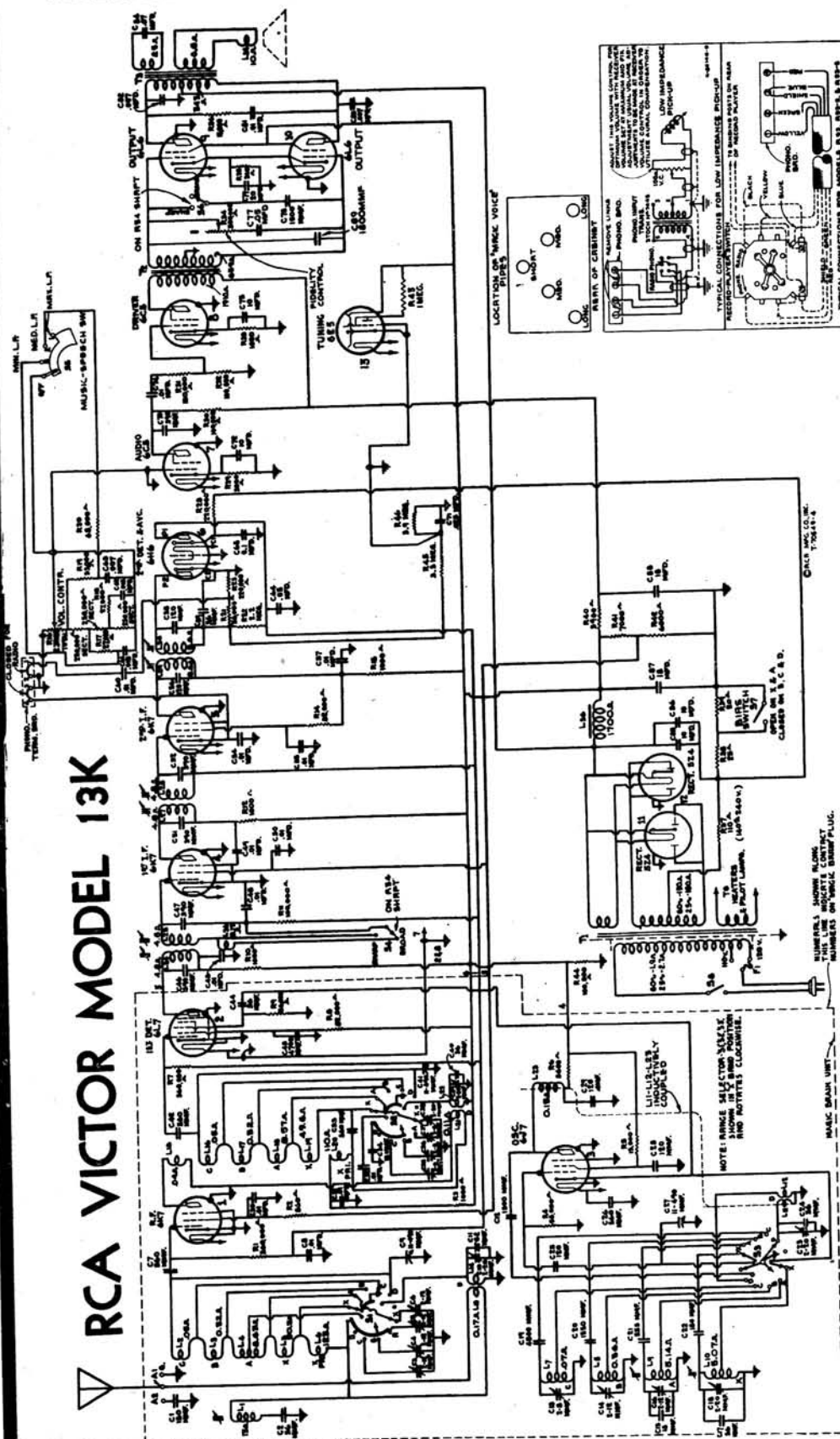
I.F. 175 KC.

R.C.A. Schematic Circuit Diagram of Model R-11

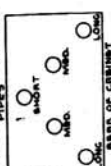
Radiotron No.	Cathode to Heater Volts D. C.	Cathode or Filament to Control Grid Volts, D. C.	Cathode or Filament to Screen Grid Volts, D. C.	Cathode or Filament to Plate Volts, D. C.	Plate Current M. A.	Screen Current M. A.	Heater or Filament Volts, A. C.
1	2	*0.1	75	205	5.0	0.5	2.2
2	8	0	—	60	5.0	—	2.2
3	7	7.0	70	200	0.5	0.1	2.2
4	2	*0.1	75	205	5.0	0.5	2.2
5	0	0	—	25	0	—	2.2
6	20	*8.0	—	180	0.5	—	2.2
7	—	10	210	205	25	—	2.2
8	—	10	210	205	25	—	2.2

* Not true reading due to resistance in circuit.

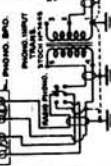
RCA VICTOR MODEL 13K



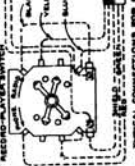
LOCATION OF WAXE VOICE
PISTON



AREA OF CEMENT
PASTE



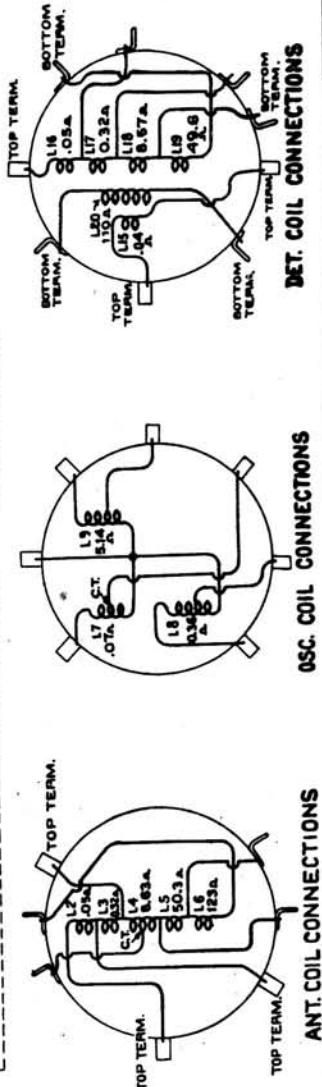
ADJUST THE VOLUME CONTROL
TO THE POINT WHERE THE
VOLUME IS AT MAXIMUM AND
THE TUNING EYE IS AT THE
CENTER OF THE SCALE. THIS
IS THE POINT WHERE THE
TUNING EYE IS AT THE
CENTER OF THE SCALE.



I.F. 460 KC.

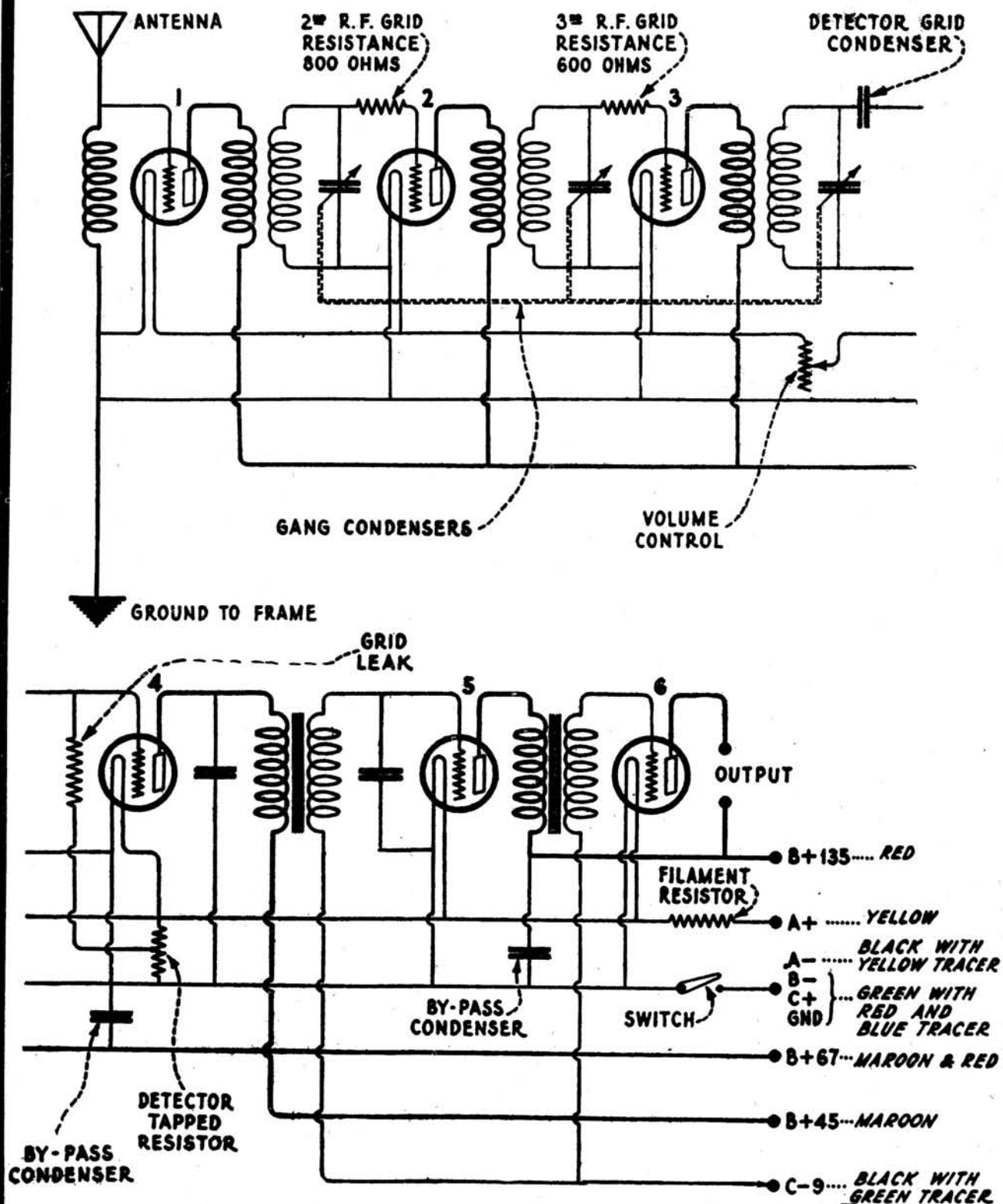
SERVICE HINTS

- (1) Excessive heating of the 6BE6 tube may be due to high cathode current — in excess of 7 ma. The tube should be replaced and the condition of the 5Z4 rectifier checked.
- (2) Low sensitivity or intermittent operation may be caused by C-43 or C-33 developing low-resistance leakage. Check both capacitors and replace if found defective.
- (3) Low sensitivity around 15—16 megacycles may be caused by dirty or poor contact of grounding contact finger on S-3.
- (4) Motorboating may be due to intermittent capacitor Stock No. 18025.



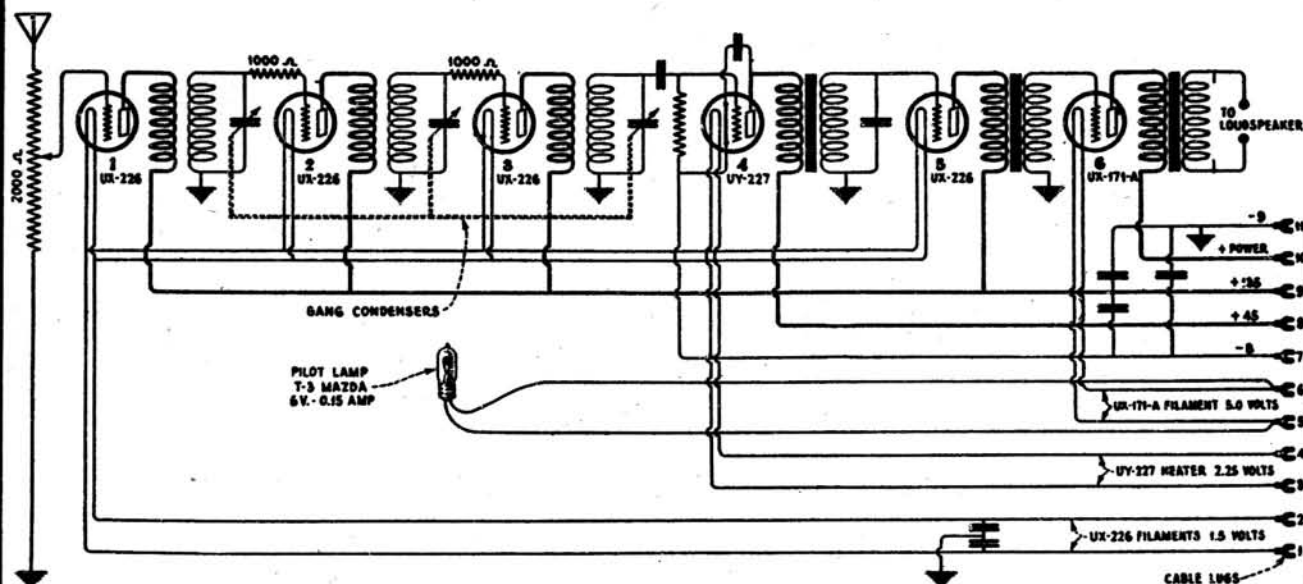
MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

RCA RADIOLA 16



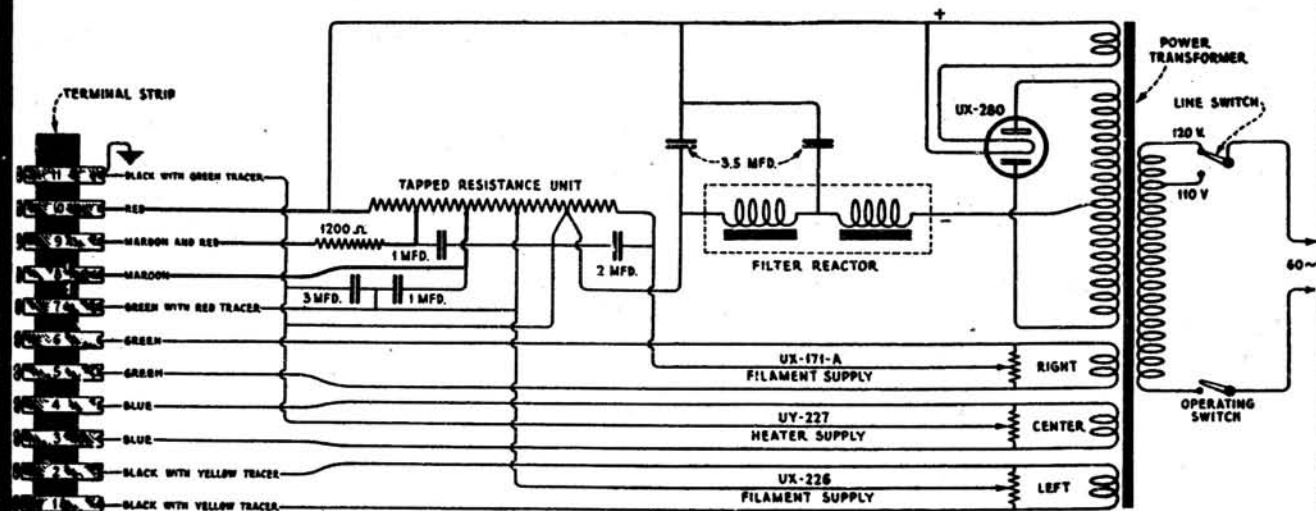
MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

RCA RADIOLA 17



Schematic circuit diagram of receiver assembly.

Indication	Cause	Remedy
No signals	Defective operating switch Loose volume control arm Defective power cable Defective R.F. transformer Defective A.F. transformer Defective By-pass condenser Defective socket power unit	Repair or replace switch Tighten volume control arm Replace power cable Replace R.F. transformer assembly Replace A.F. transformer assembly Replace By-pass condenser Check socket power unit by means of continuity test and make any repairs or replacements necessary



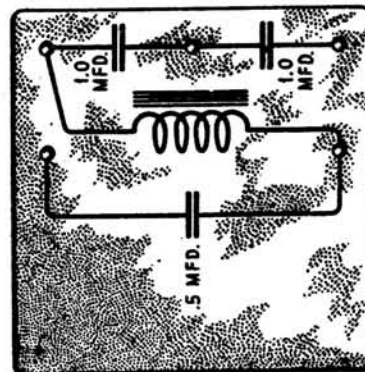
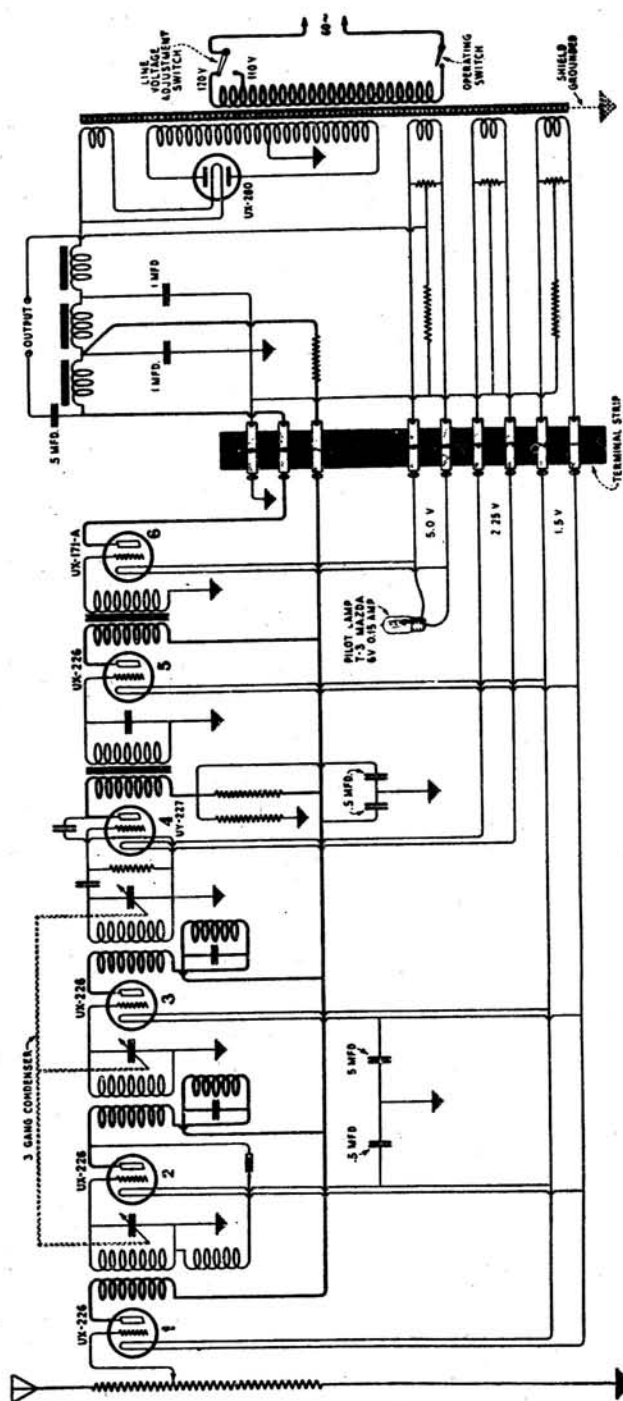
166

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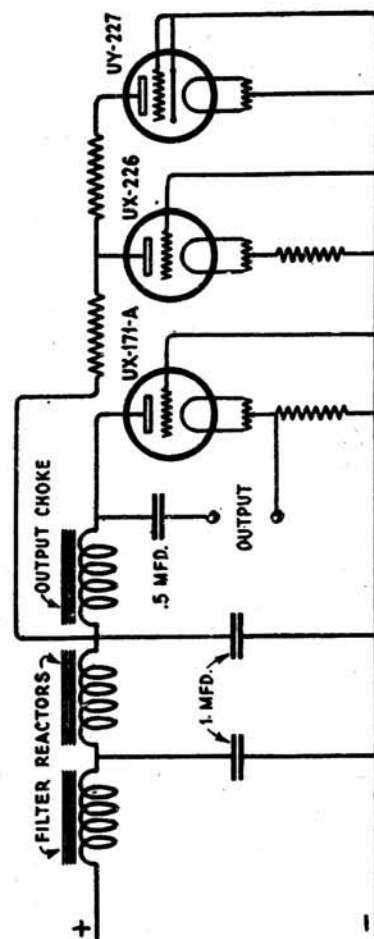
MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

RCA RADIOLA 18

(105-125 Volts, 50-60 Cycle A.C.)

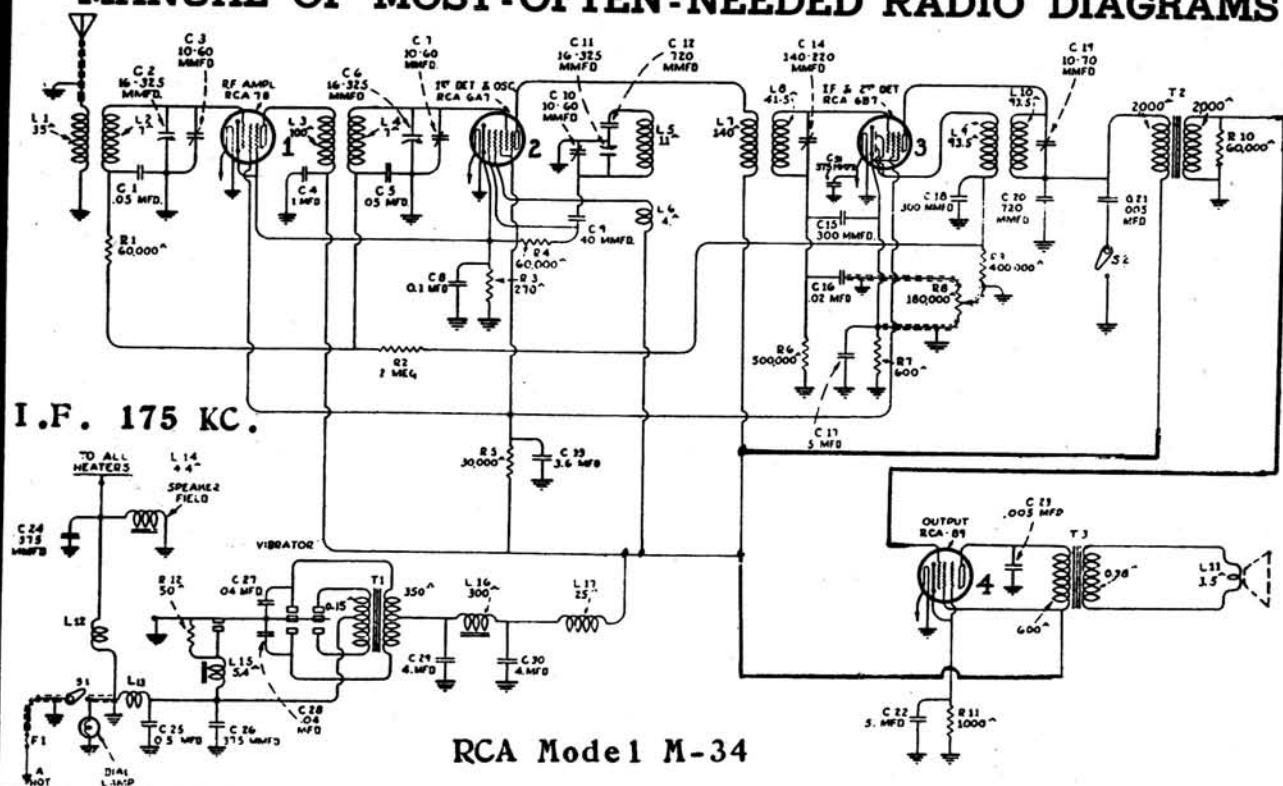


Internal connections of condensers.



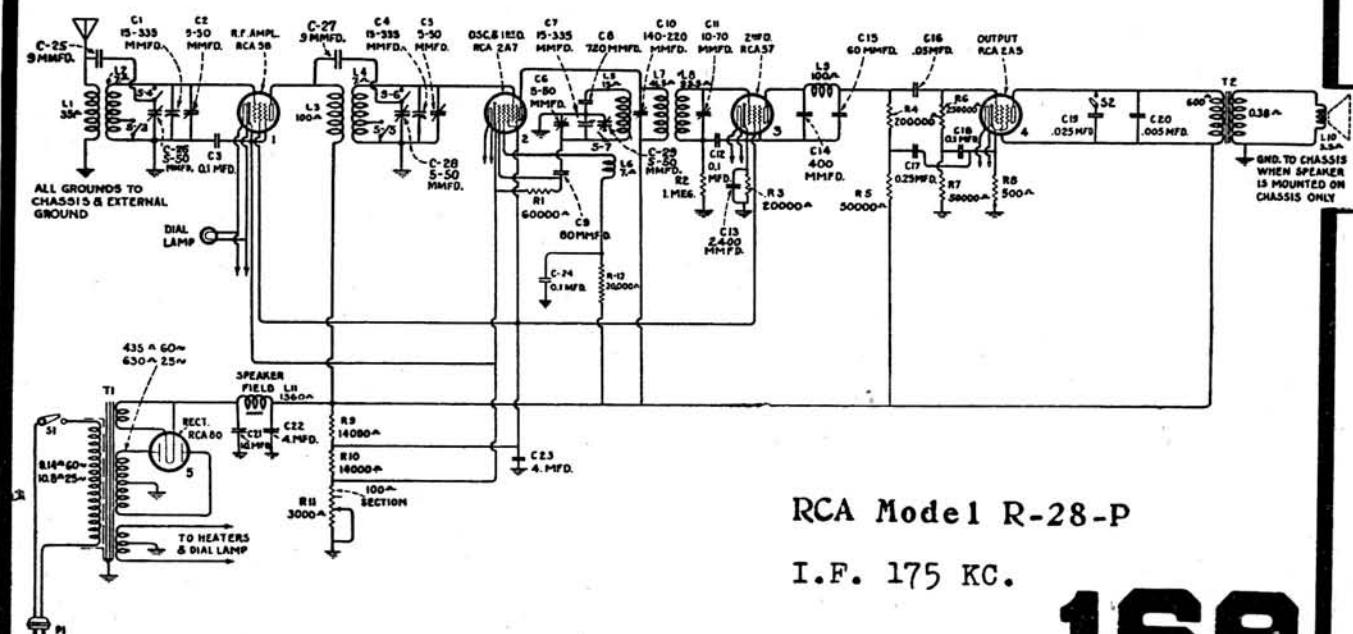
Schematic circuit illustrating method of obtaining grid and plate voltages.

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



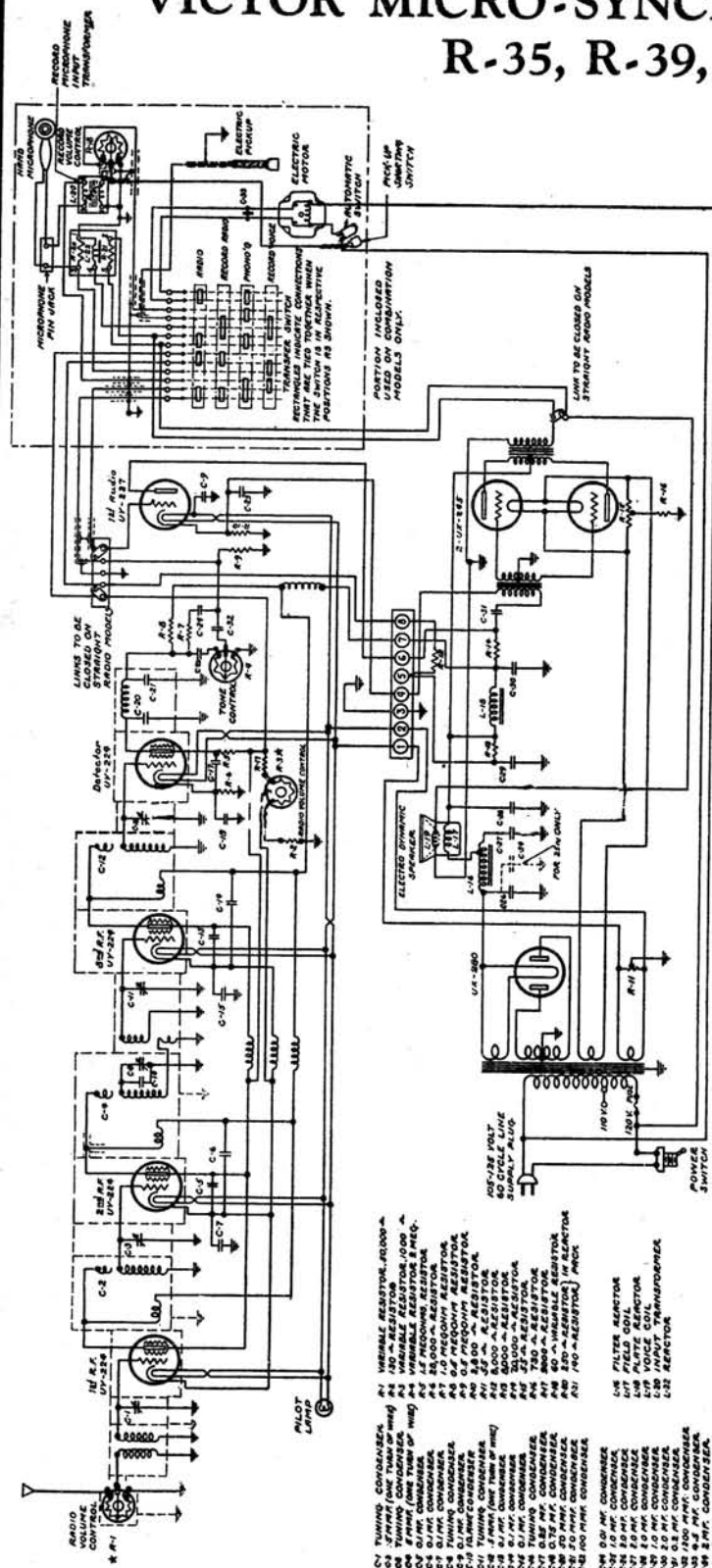
MAXIMUM VOLUME CONTROL SETTING—NO SIGNAL

Radiotron No.	Cathode to Control Grid, Volts	Cathode to Screen Grid, Volts	Cathode to Plate, Volts	Plate Current, M. A.	Heater Volts
1. RCA-58 R. F. Amplifier	3.0	95	250	5.0	2.33
2. RCA-2A7 First Detector Oscillator	3.0	95	250	3.0	2.33
3. RCA-57 Second Detector	6.0	89	170	0.3	2.33
4. RCA-2A5 Power Amplifier	18.0	235	220	32.0	2.33
5. RCA-80 Rectifier	275 Volts PLATE TO PLATE—60 M. A. TOTAL				4.82
TOTAL CATHODE CURRENT—11 M. A.					



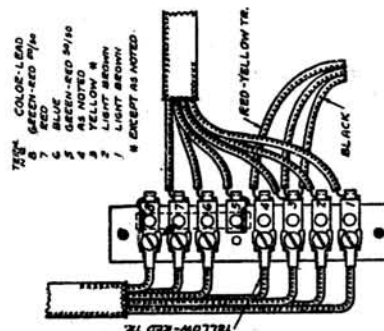
MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

VICTOR MICRO-SYNCHRONOUS RADIO R-35, R-39, RE-57



NOTE—Broken lines along with indicate grounded shielding.

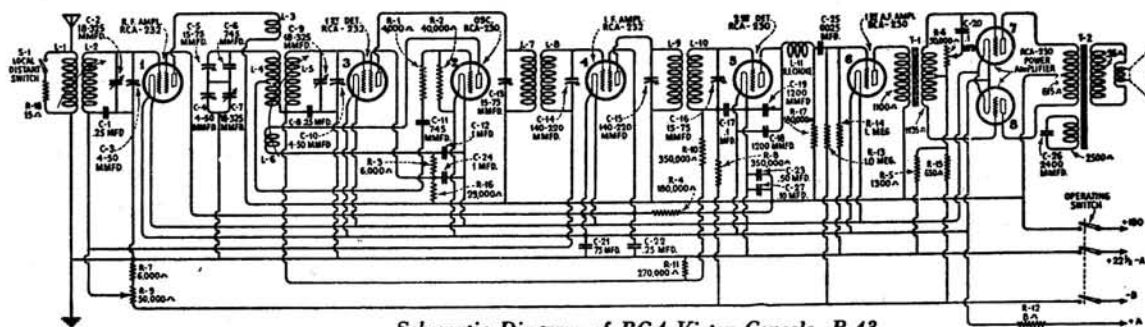
Schematic Wiring Diagram Victor Micro-Synchronous Radio, Models R-35, R-39, and RE-57.



Top View of Amplifier Terminal Strip.

TEST BETWEEN TERMINALS	PART	APPROXIMATE VOLTAGE (10 V SCALE)	APPROXIMATE RESISTANCE (OHMMETER)
F and 7 of Terminal Board	Tapped Choke	8.4 Volts	300 Ohms
4 and 6 of Terminal Board	Speaker Field	7.2 Volts	1,500 Ohms
Brown-Grey Resistor	8000 Ohm Resistor	3.4 Volts	8,000 Ohms
Brown-Grey Resistor	8000 Ohm Resistor	3.4 Volts	8,000 Ohms
Green-Red Resistor	70,000 Ohm Resistor	.5 Volts	70,000 Ohms
7 and 8 of Condenser Bank	Plate Choke	4.0 Volts	6,000 Ohms
2 of Condenser Bank and 4 of Terminal Strip	Primary Interstage Transformer	6.4 Volts	2,000 Ohms
UX-245 Grids	Secondary Interstage Transformer	2.4 Volts	14,000 Ohms
UX-245 Grids to Chassis	One-half Secondary Interstage Transformer	3.4 Volts	5,500 Ohms
UX-245 Plates and No. 3 of Condenser Bank	Primary Output Transformer	3.6 Volts	7,500 Ohms
Voice Coil	One-half Primary Output Transformer	8.8 Volts	165 Ohms
14 and 15 of Terminal Board	Speaker Voice Coil	9.0 Volts	0 Ohms
P and P	Primary Power Transformer	9.0 Volts	0 Ohms
F and F	High Voltage Secondary Output Transformer	8.4 Volts	340 Ohms
	UX-288 Filament Secondary Output Transformer	9.0 Volts	0 Ohms

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



Schematic Diagram of RCA Victor Console, R-43

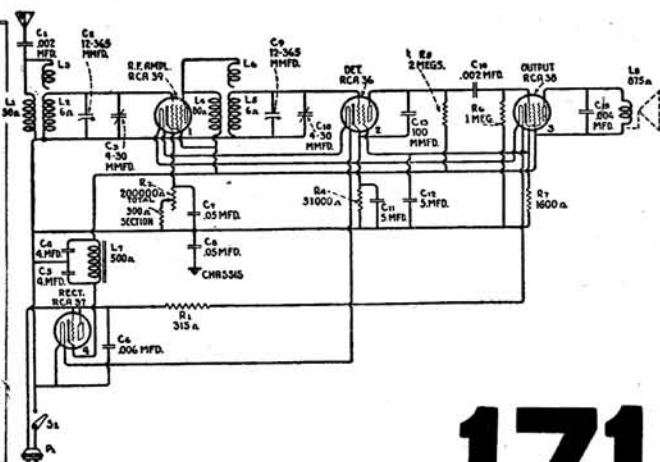
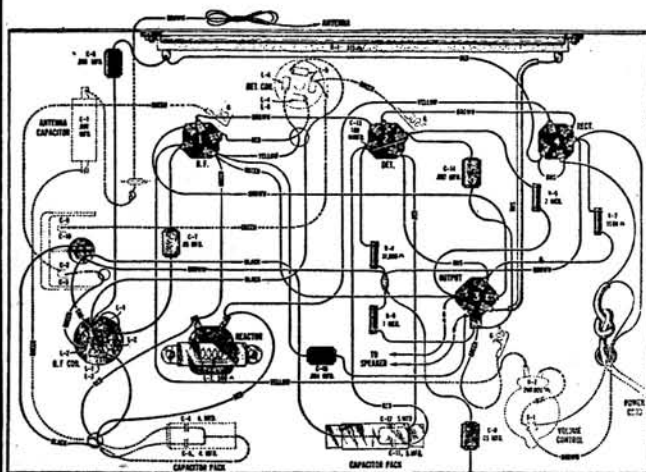
VOLUME CONTROL AT MINIMUM					
Tube No.	Filament to Control Grid Volts	Filament to Screen Grid Volts	Filament to Plate Volts	Plate Current M. A.	Filament Volts
1	22	55	155	0	2.0
2	—	—	50	3.0	2.0
3	0.5	65	150	0.5	2.0
4	22	55	155	0	2.0
5	5.0	—	90	0	2.0
6	2.0	—	150	2.5	2.0
7	15.0	—	150	0.5	2.0
8	15.0	—	150	0.5	2.0
VOLUME CONTROL AT MAXIMUM					
1	1.5	45	150	2.5	2.0
2	—	—	50	3.0	2.0
3	0.5	60	150	0.5	2.0
4	1.5	45	150	2.5	2.0
5	5.0	—	90	0	2.0
6	2.0	—	150	2.5	2.0
7	15.0	—	150	0.5	2.0
8	15.0	—	150	0.5	2.0

RCA Victor R-17-M

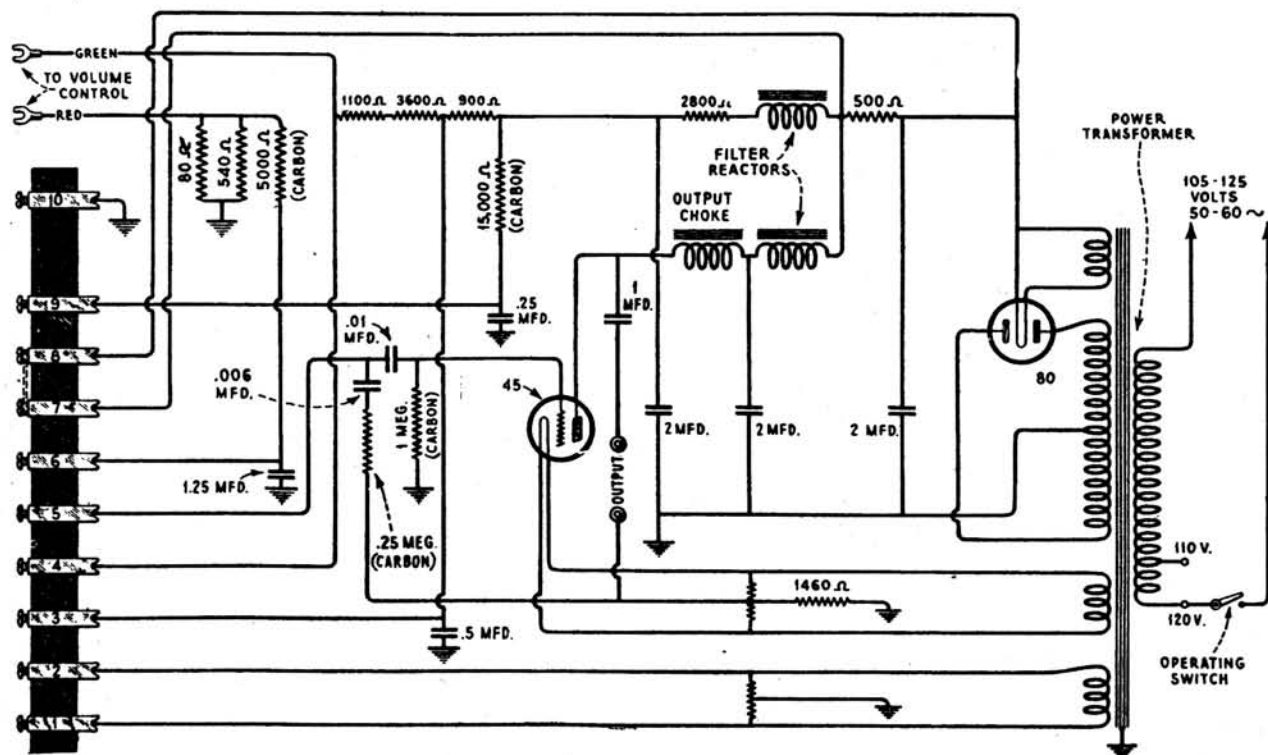
Radiotron No.	Cathode or Filament to Control Grid Volts	Cathode or Filament to Screen Grid Volts	Cathode or Filament to Plate Volts	Plate Current M. A.	Filament or Heater Volts
1. RCA-39 R. F.	3.0	105.0	105	7.0	6.0
2. RCA-36 Detector	*0.75	11.0	*60	0.025	6.0
3. RCA-38 Output	11.0	100.0	95	5.0	6.0
4. RCA-37 Rectifier	—	—	115	15.0	6.0

*Impossible to measure on ordinary voltmeter.

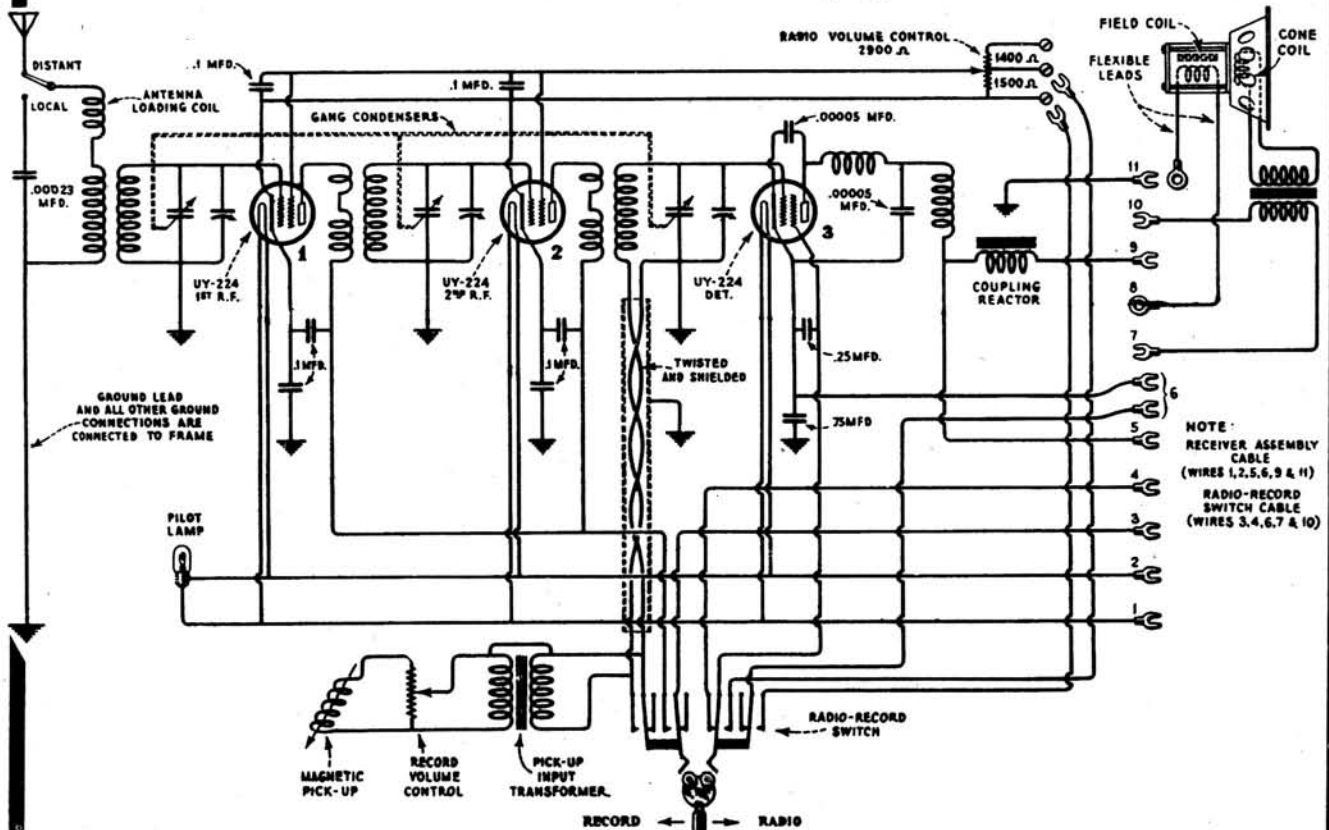
All Voltages on D. C. will be slightly lower



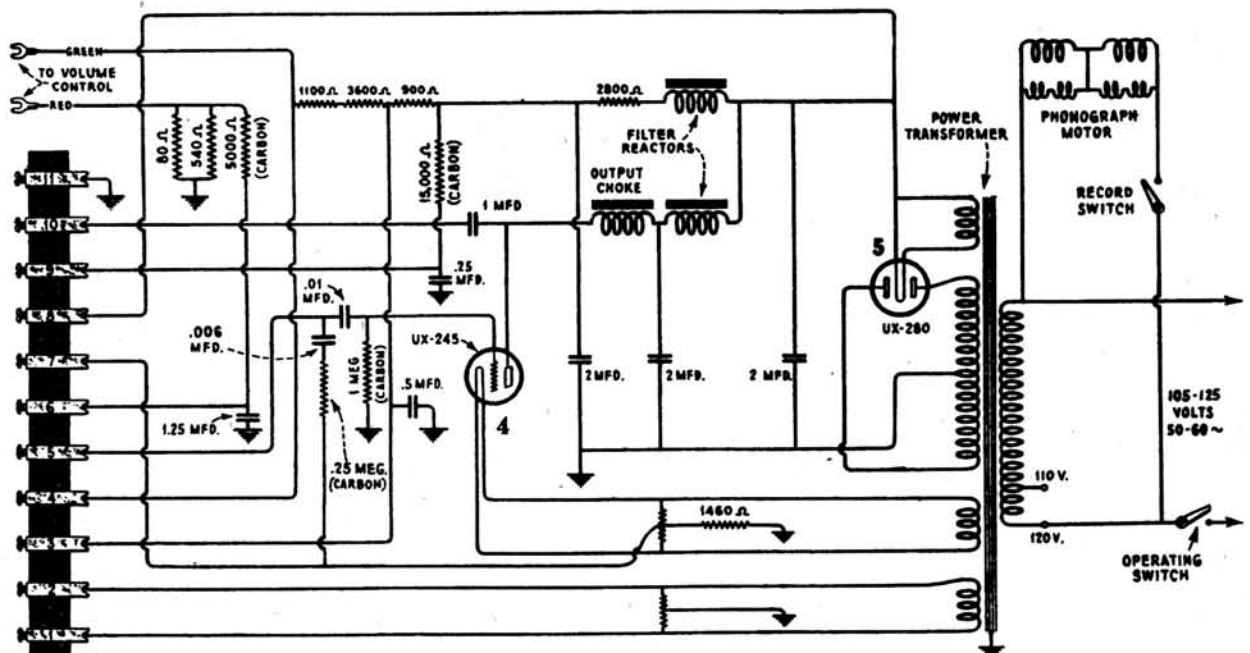
RCA RADIOLAS 44 and 46



Radiola 47

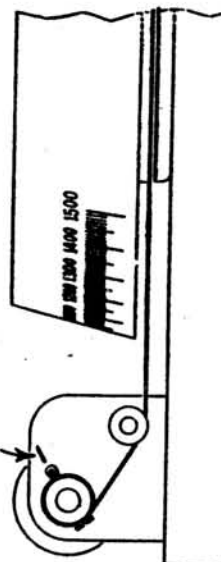
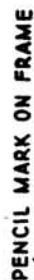


Schematic circuit diagram of receiver, phonograph pick-up and reproducer

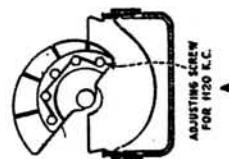


Schematic circuit diagram of socket power unit

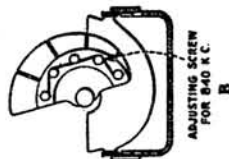
RCA RADIOLA 48



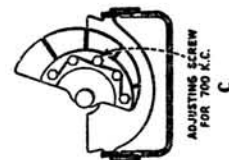
View showing method of checking position of dial.



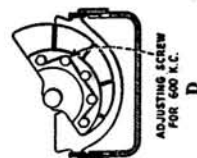
ADJUSTING SCREW
FOR H2O K.C.



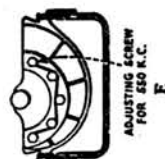
USTING SCREW
OR B40 K C.



USTING SCREW
OR 700 K.C.

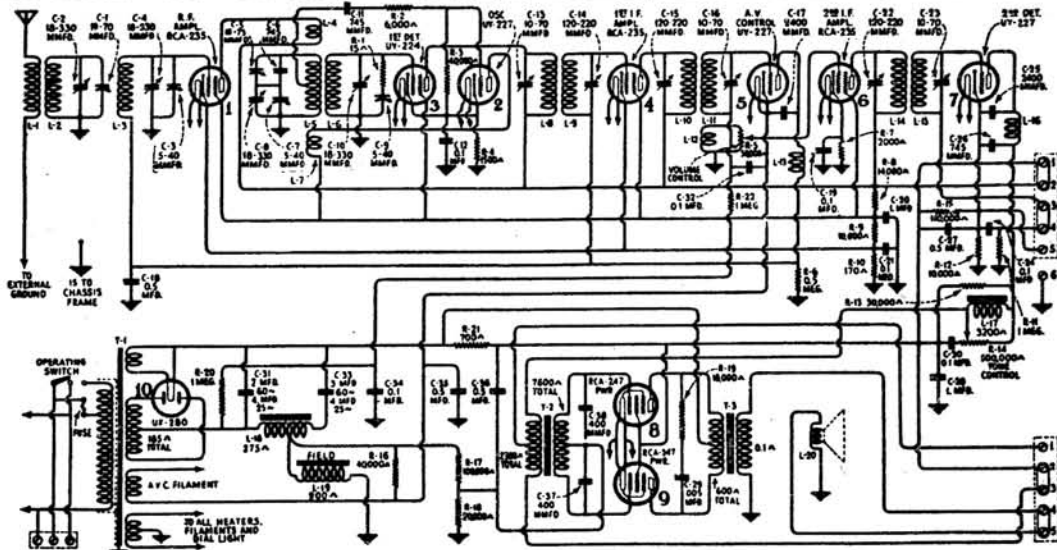


ADJUSTING SCREEN
FOR 600 K.C.



**MUSTING SCREW
OR 550 K.C.**

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



RCA Models R-50, R-55

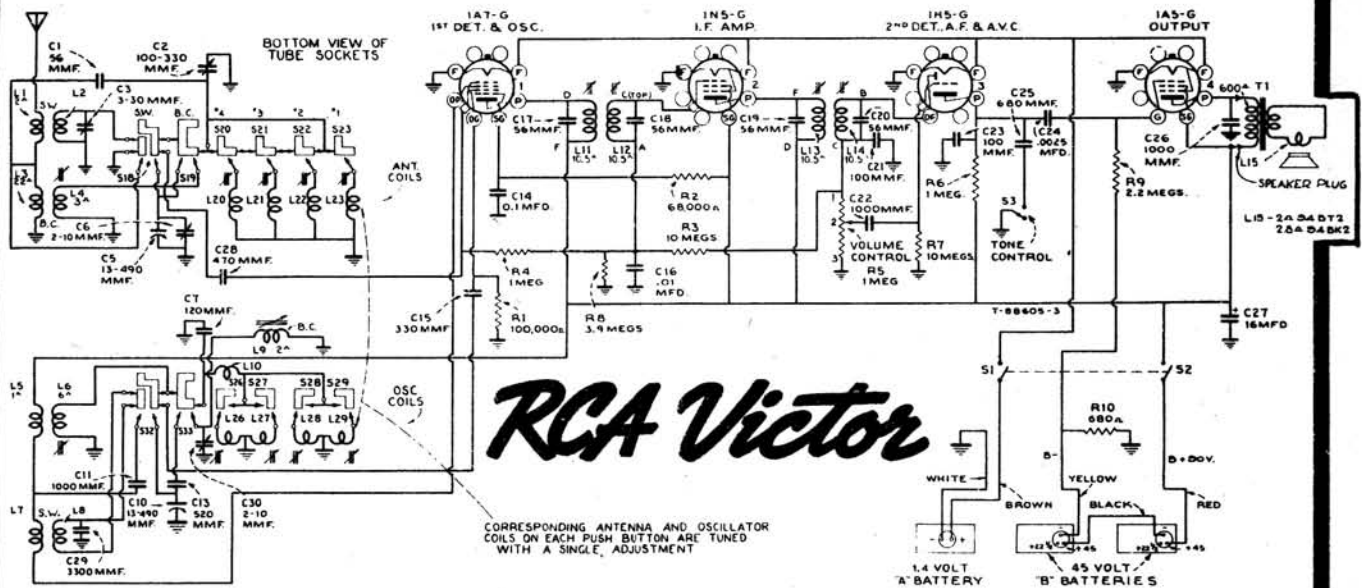
I.F. 175 KC.

MODELS 94BK2 and 94BT2

Chassis No.

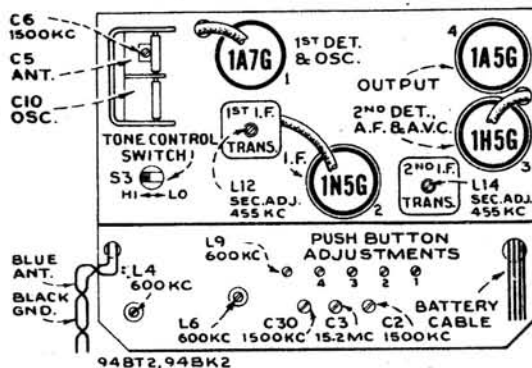
RC-390

RC-390

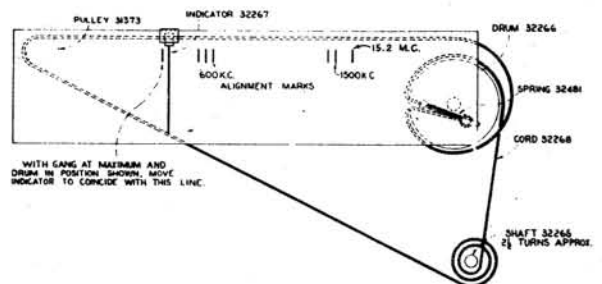


RCA Victor

CORRESPONDING ANTENNA AND OSCILLATOR COILS ON EACH PUSH BUTTON ARE TUNED WITH A SINGLE ADJUSTMENT



Tube and Trimmer Locations

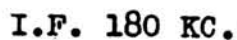


Dial Drive Hookup and Alignment Marks

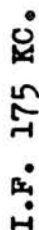
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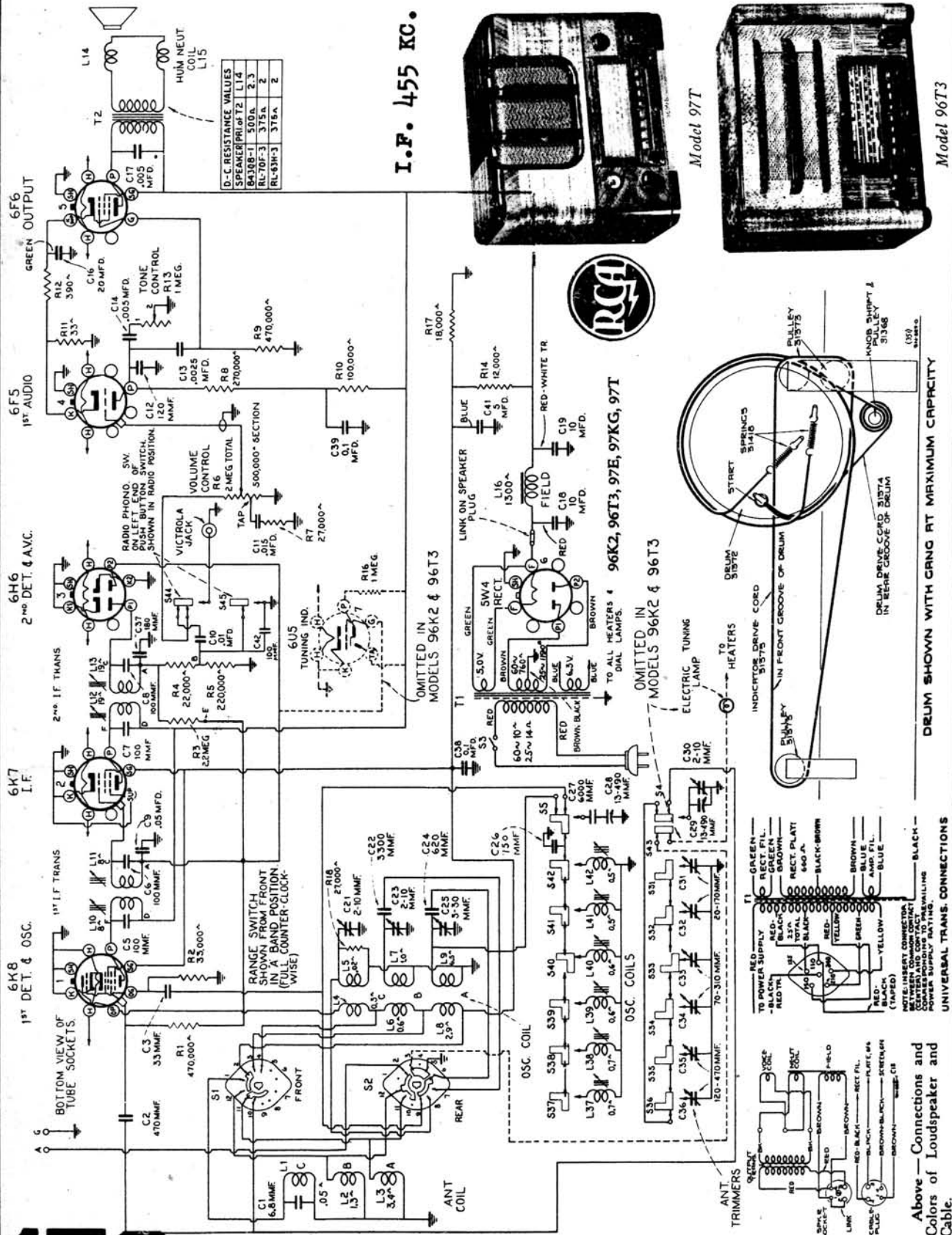
(105-125 Volts. 50-60 Cycle A. C.)



RCA Radiola 80, 82, 86

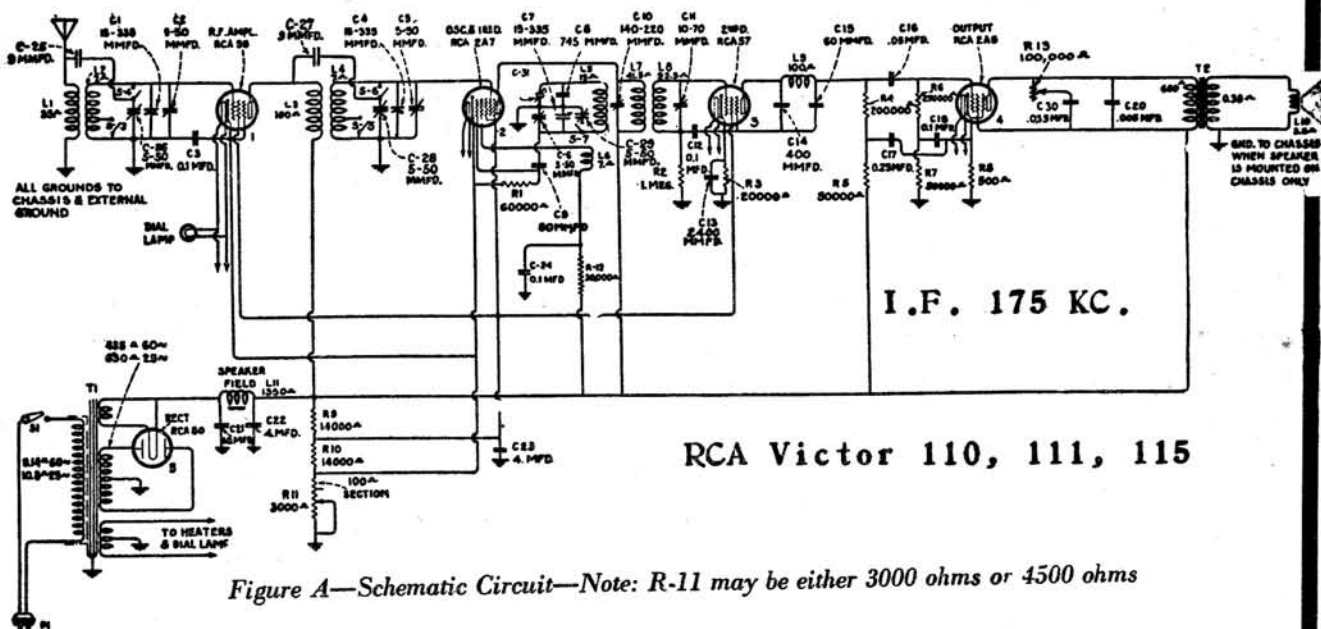


MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

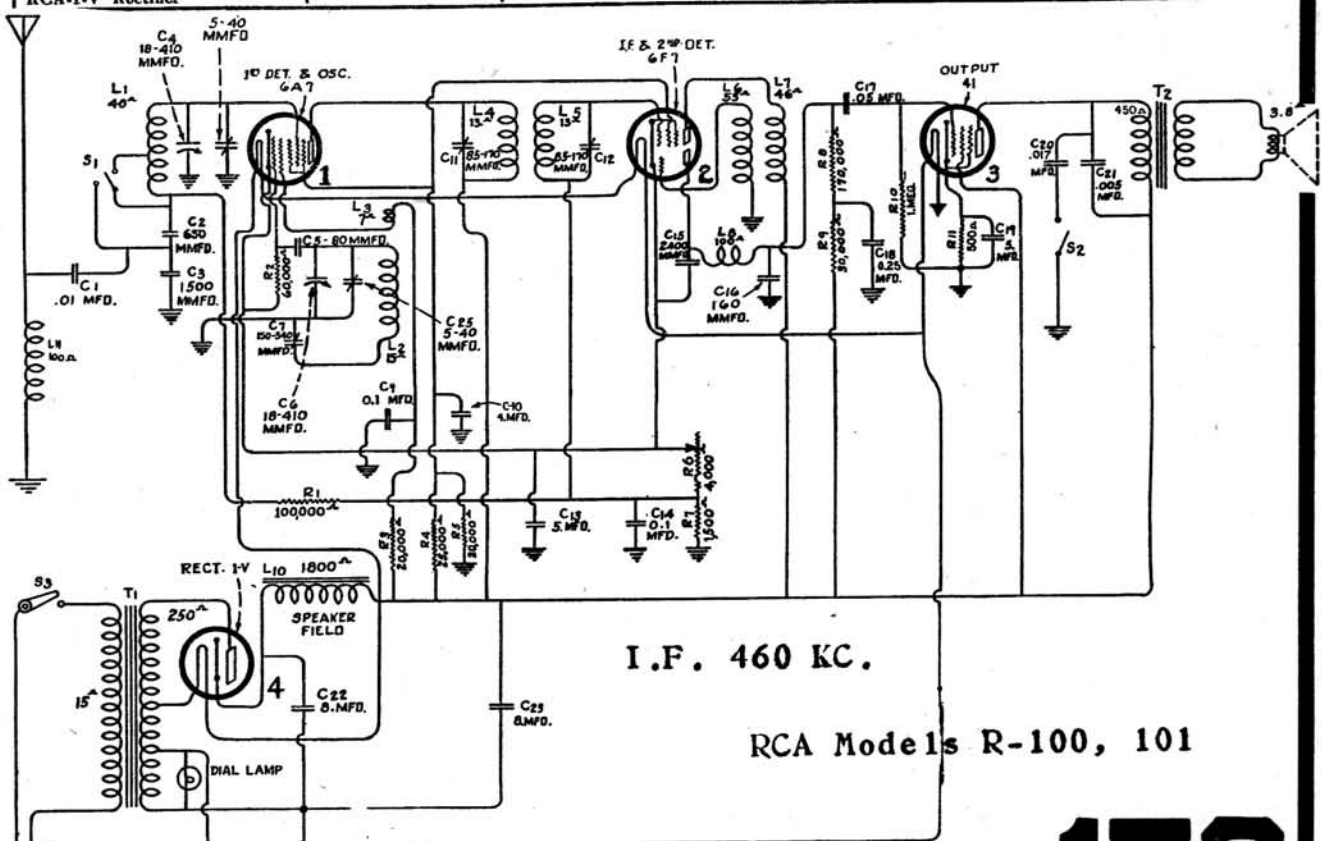


Above—Connections and Colors of Loudspeaker and Cable.

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

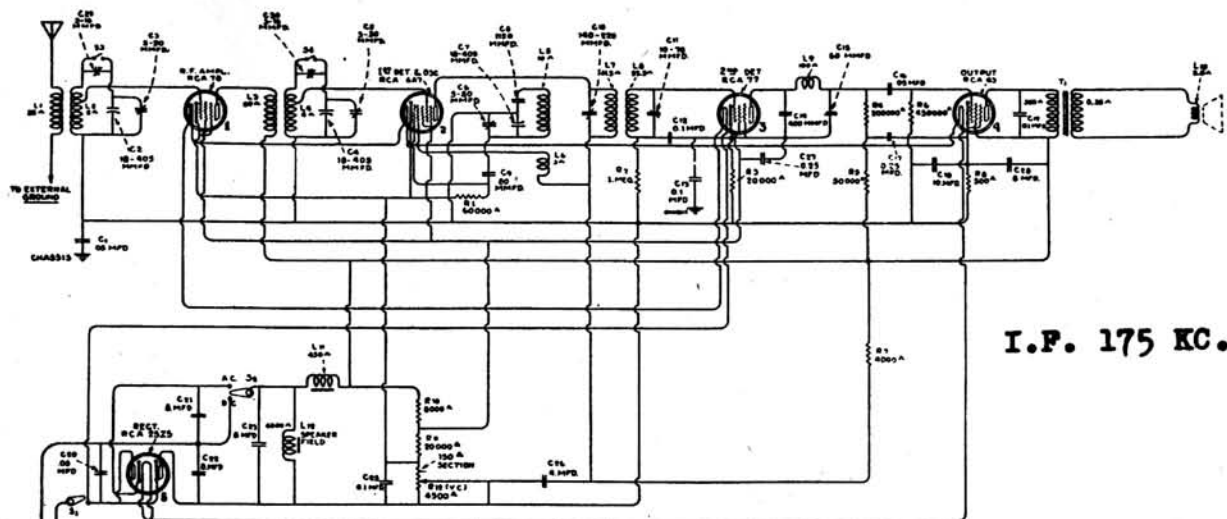


Radio No.	Cathode to Control Grid, Volts D. C.	Cathode to Screen Grid, Volts, D. C.	Cathode to Plate, Volts D. C.	Plate Current, M. A.	Heater or Filament, Volts
RCA-6A7	First Detector	1.25	70	2.5	6.3
	Oscillator	—	180	3.5	
RCA-6F7	I. F.	1.25	70	2.5	6.3
	Second Detector	19	145*	0.4	
RCA-41 Output	17	240	230	26.5	6.3
RCA-1-V Rectifier	—	—	335 RMS	50	6.3

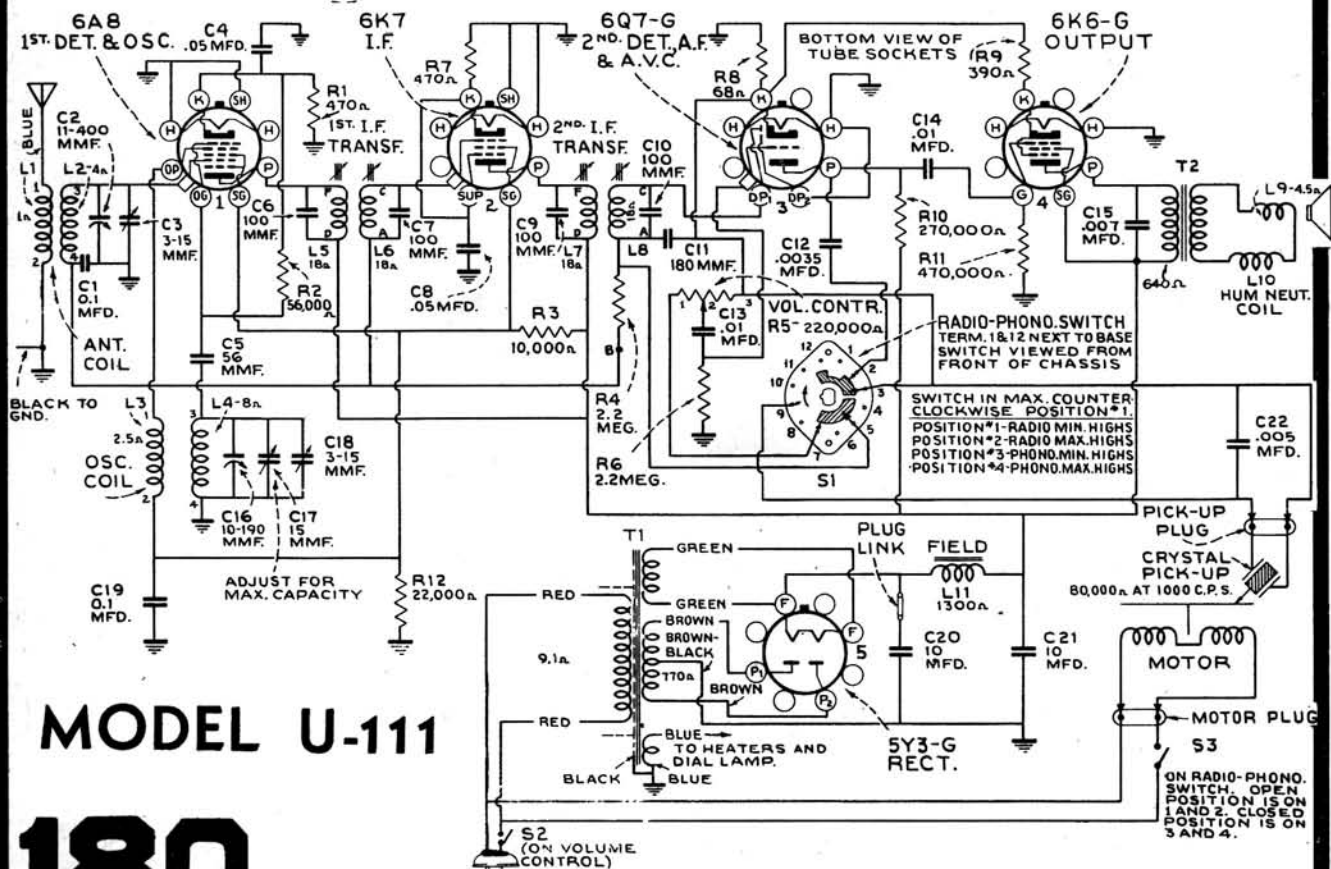
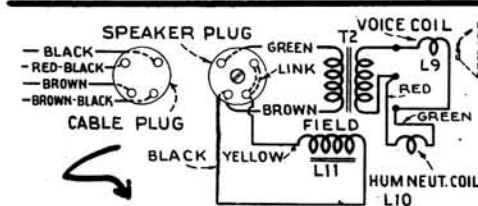
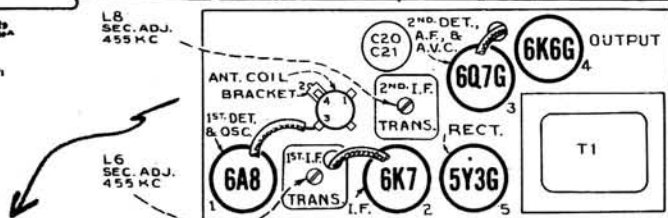


MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

RCA Victor 114



I.P. 175 KC.



MODEL U-111

180

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MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

RCA Victor 120

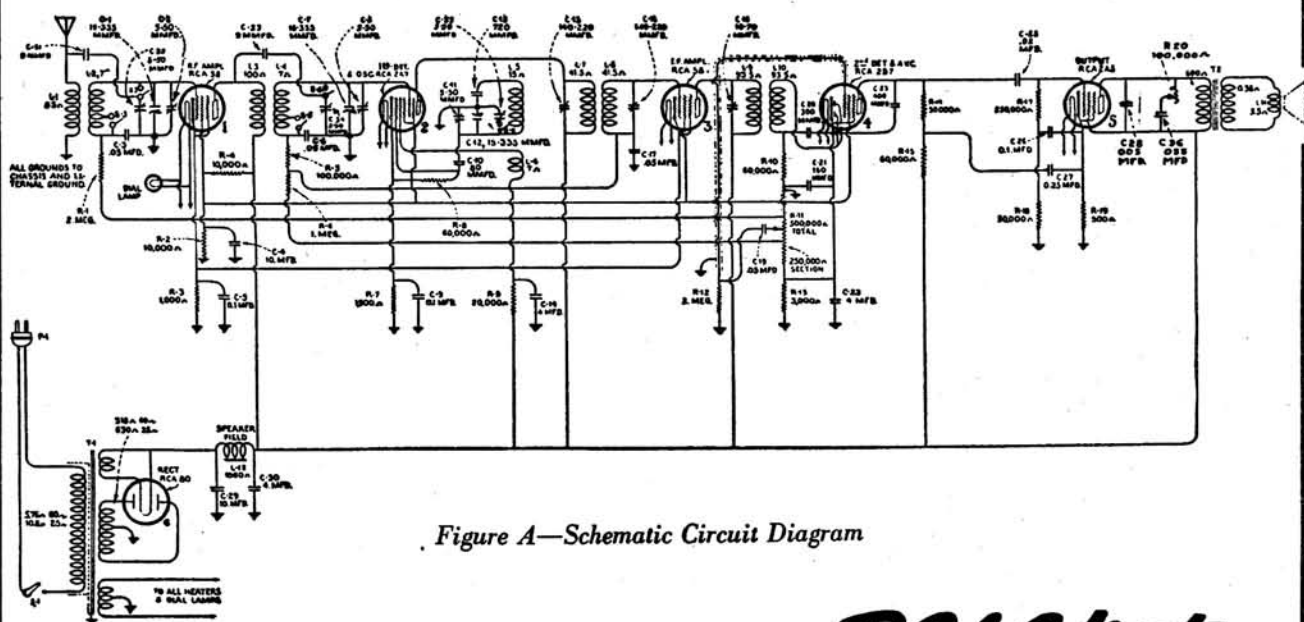


Figure A—Schematic Circuit Diagram

I.F. 175 KC.

RCA Victor

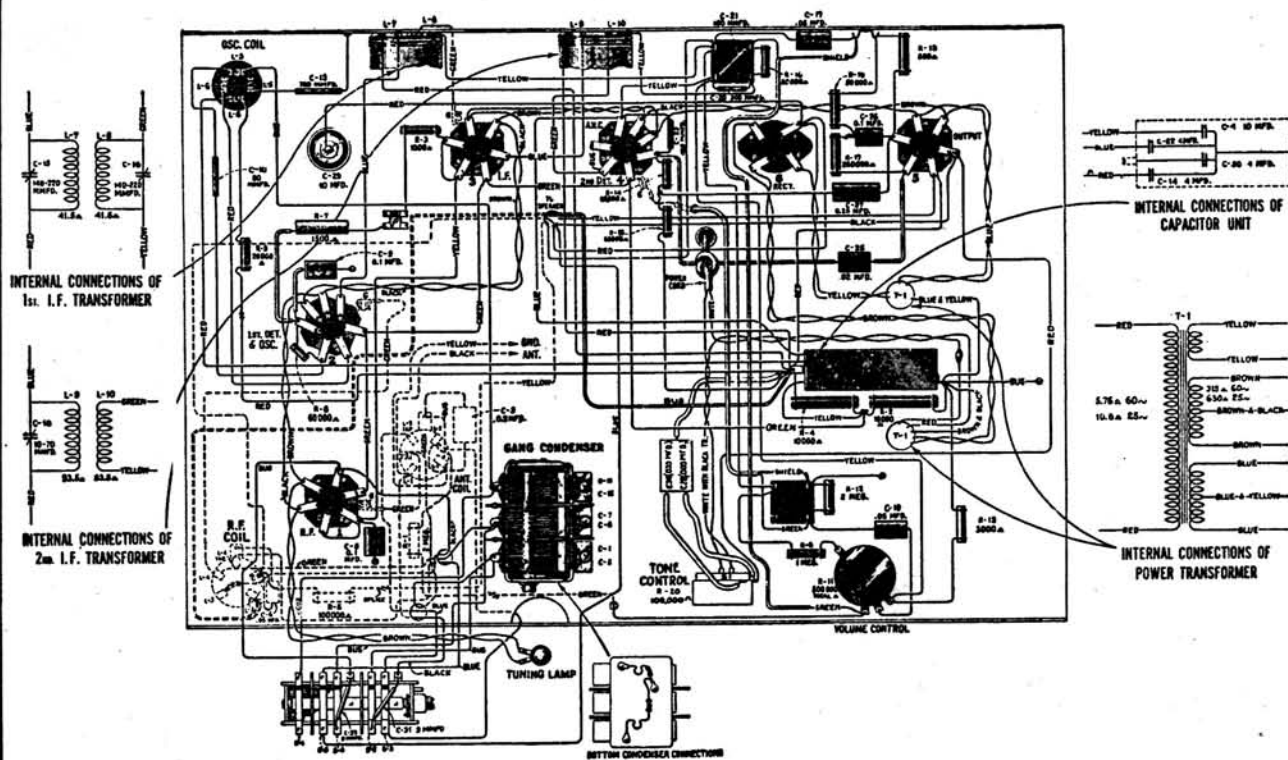
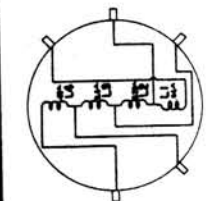


Figure B—Wiring Diagram

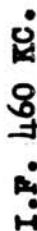
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WIRE COIL CONNECTIONS



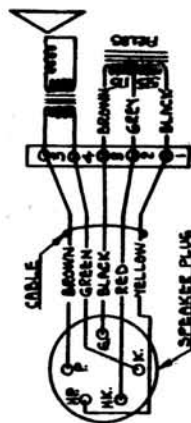
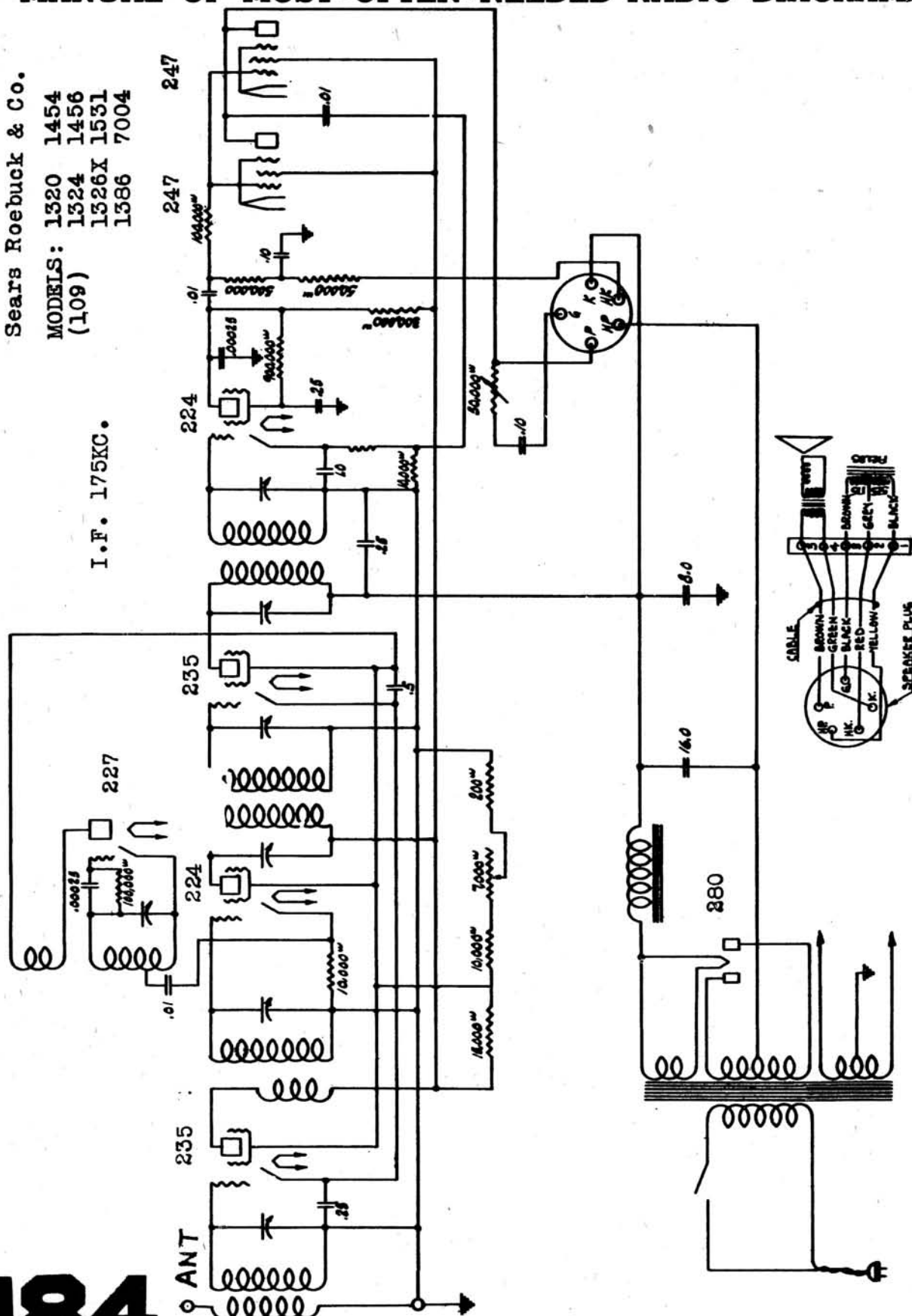
RCA Victor

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

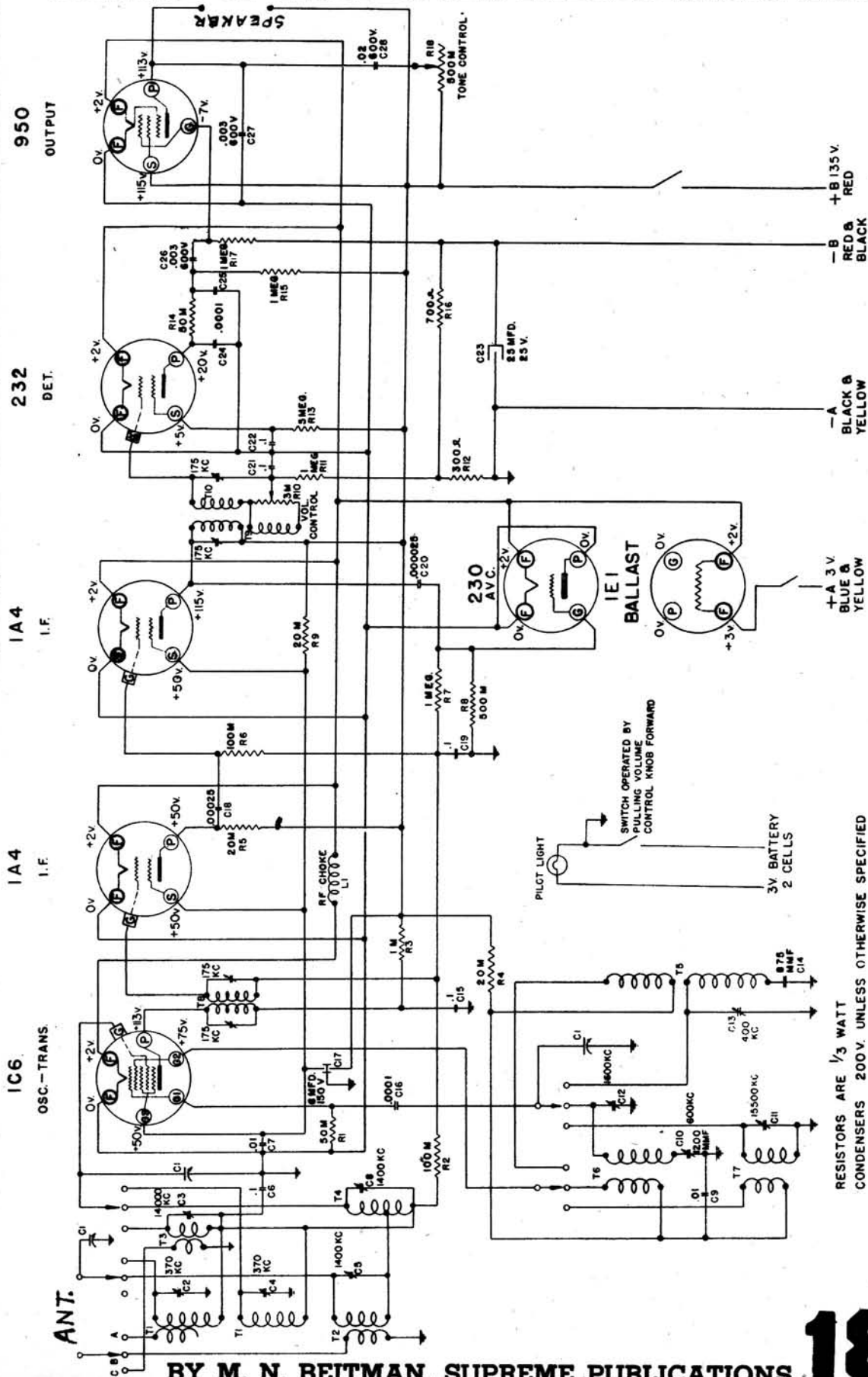
Sears Roebuck & Co.

MODELS: 1320 1454
1324 1456
1326X 1531
1386 7004

I.F. 175KC.



MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



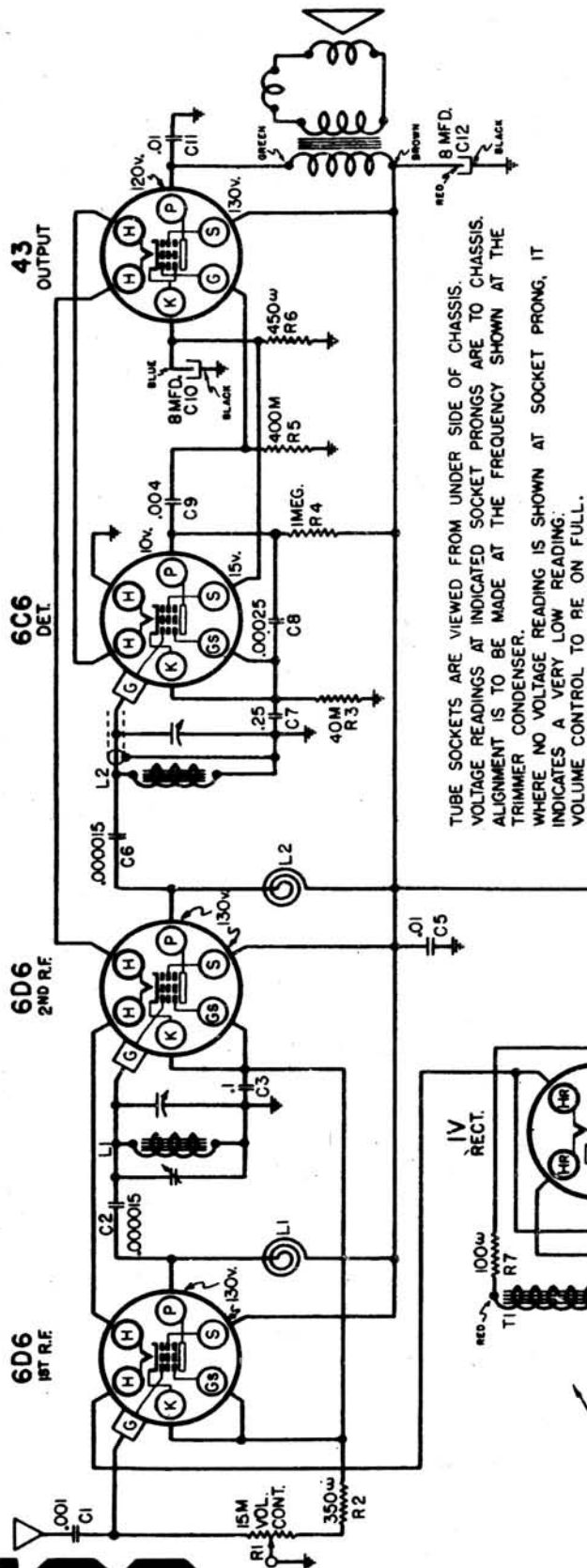
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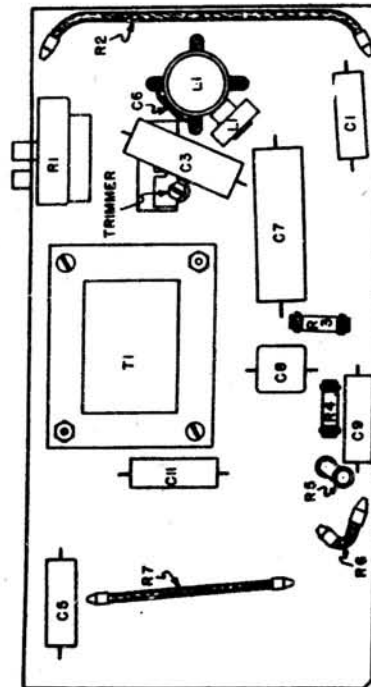
MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

Sears Roebuck & Co.

Models: 4414, 4415,
4500, 4505, 4506,
4510, 4511

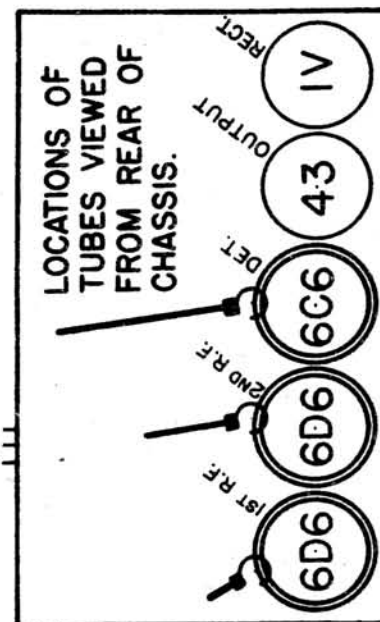


TUBE SOCKETS ARE VIEWED FROM UNDER SIDE OF CHASSIS. VOLTAGE READINGS AT INDICATED SOCKET PRONGS ARE TO CHASSIS. ALIGNMENT IS TO BE MADE AT THE FREQUENCY SHOWN AT THE TRIMMER CONDENSER. WHERE NO VOLTAGE READING IS SHOWN AT SOCKET PRONG, IT INDICATES A VERY LOW READING. VOLUME CONTROL TO BE ON FULL.



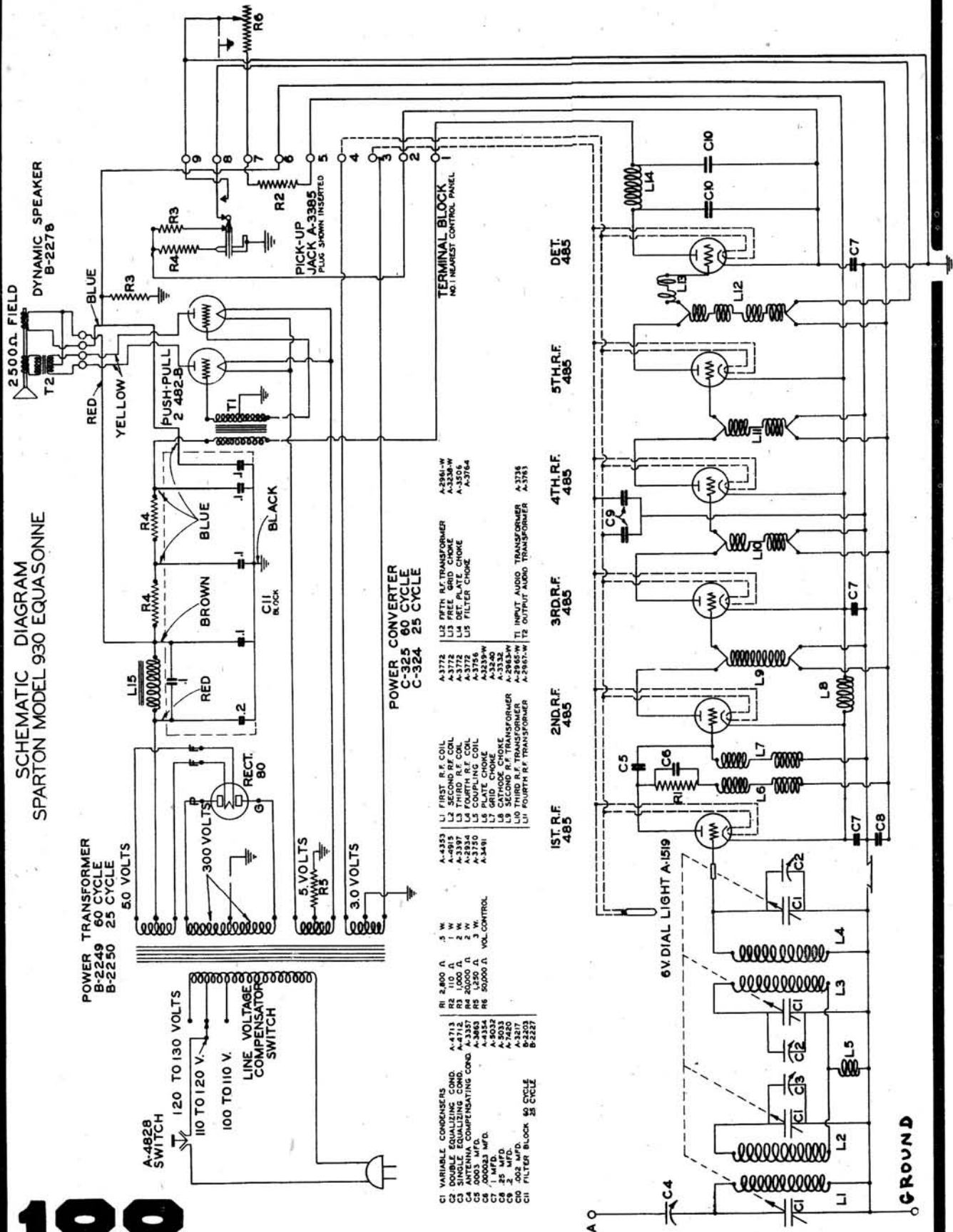
C4, C10, C12, & L1 ARE MOUNTED ON TOP OF CHASSIS.

LOCATIONS OF PARTS UNDER CHASSIS



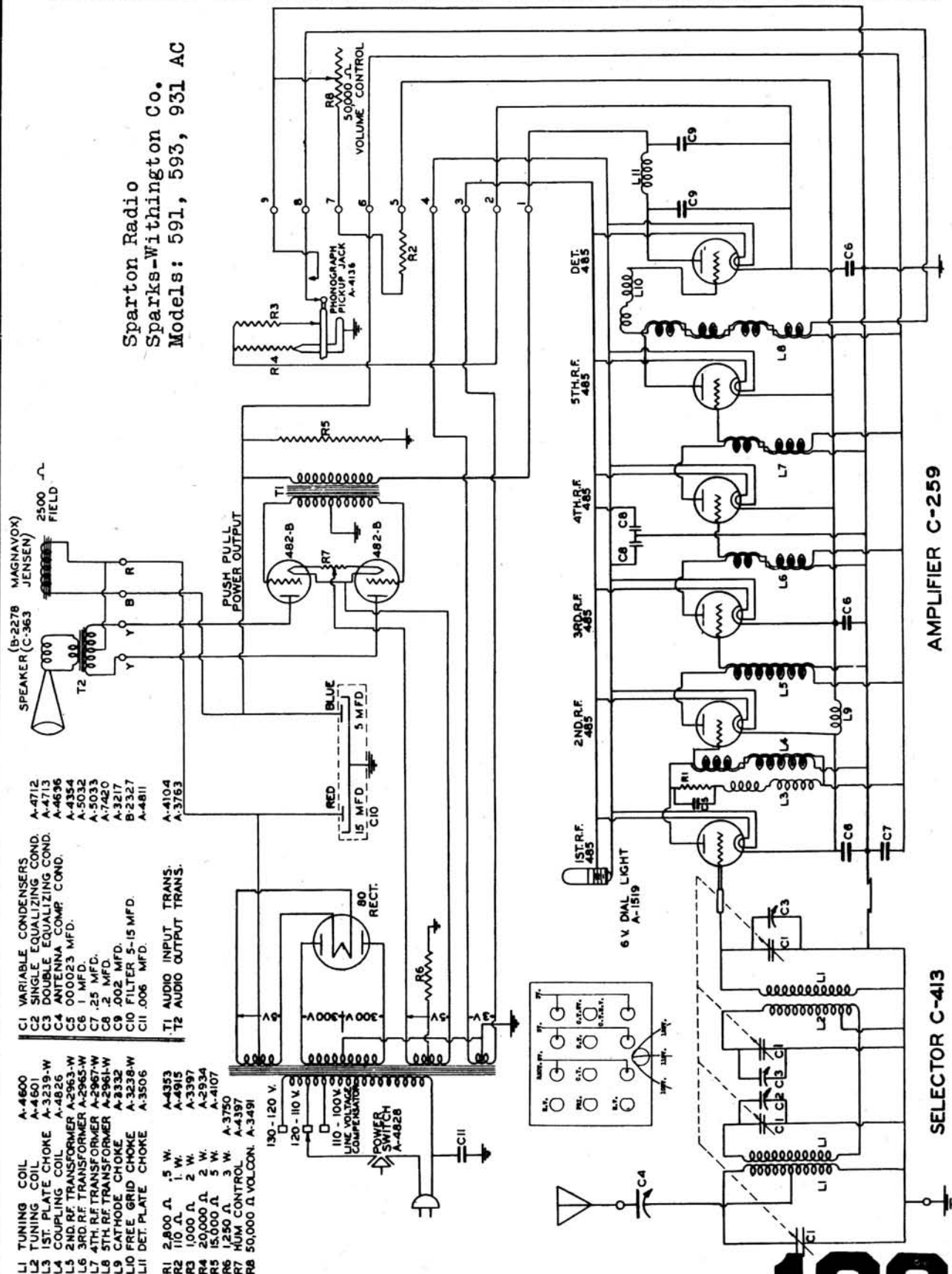
MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

SCHEMATIC DIAGRAM
SPARTON MODEL 930 EQUA SONNE



MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

Sparton Radio
Sparks-Withington Co.
Models: 591, 593, 931 AC

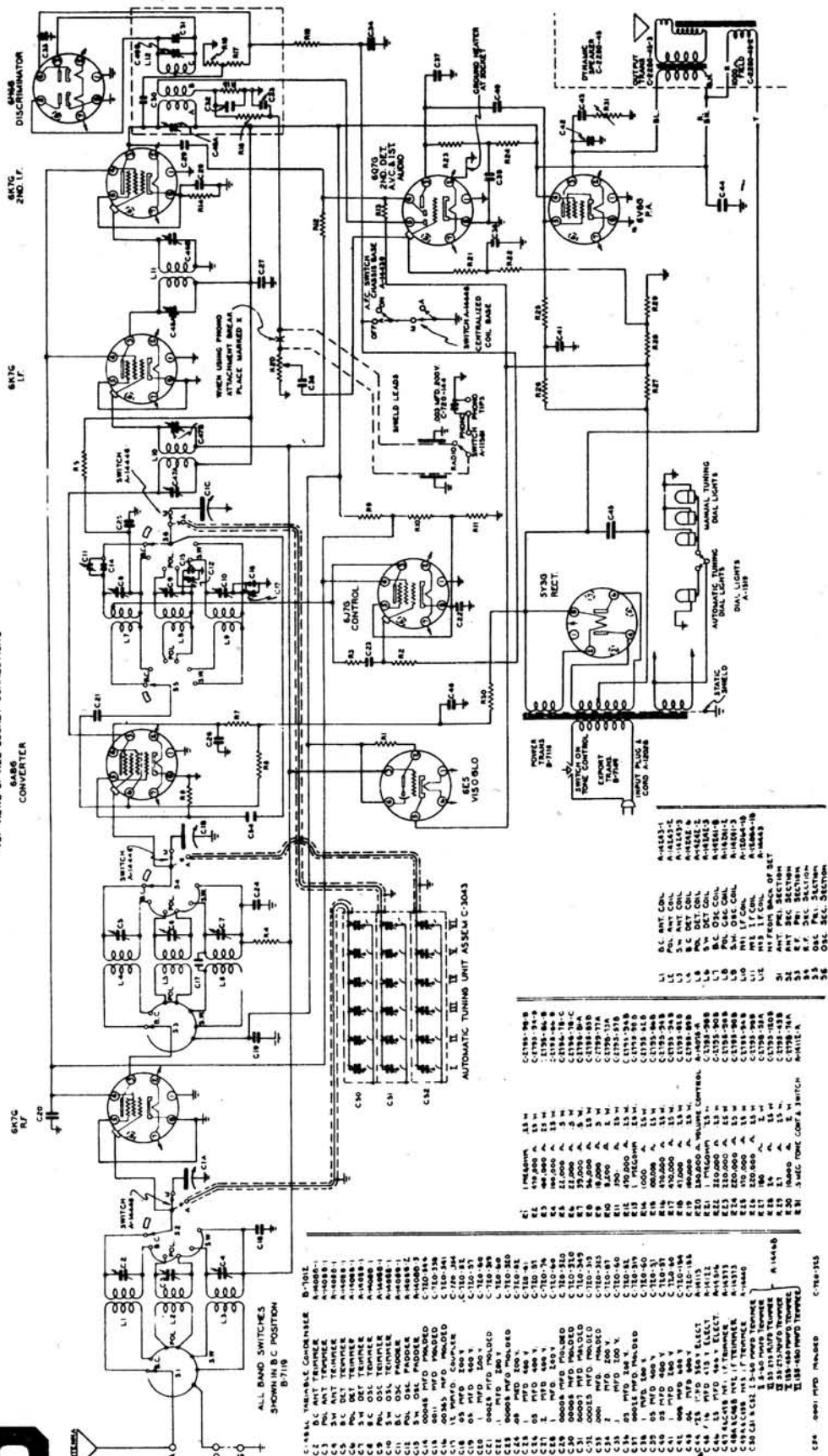


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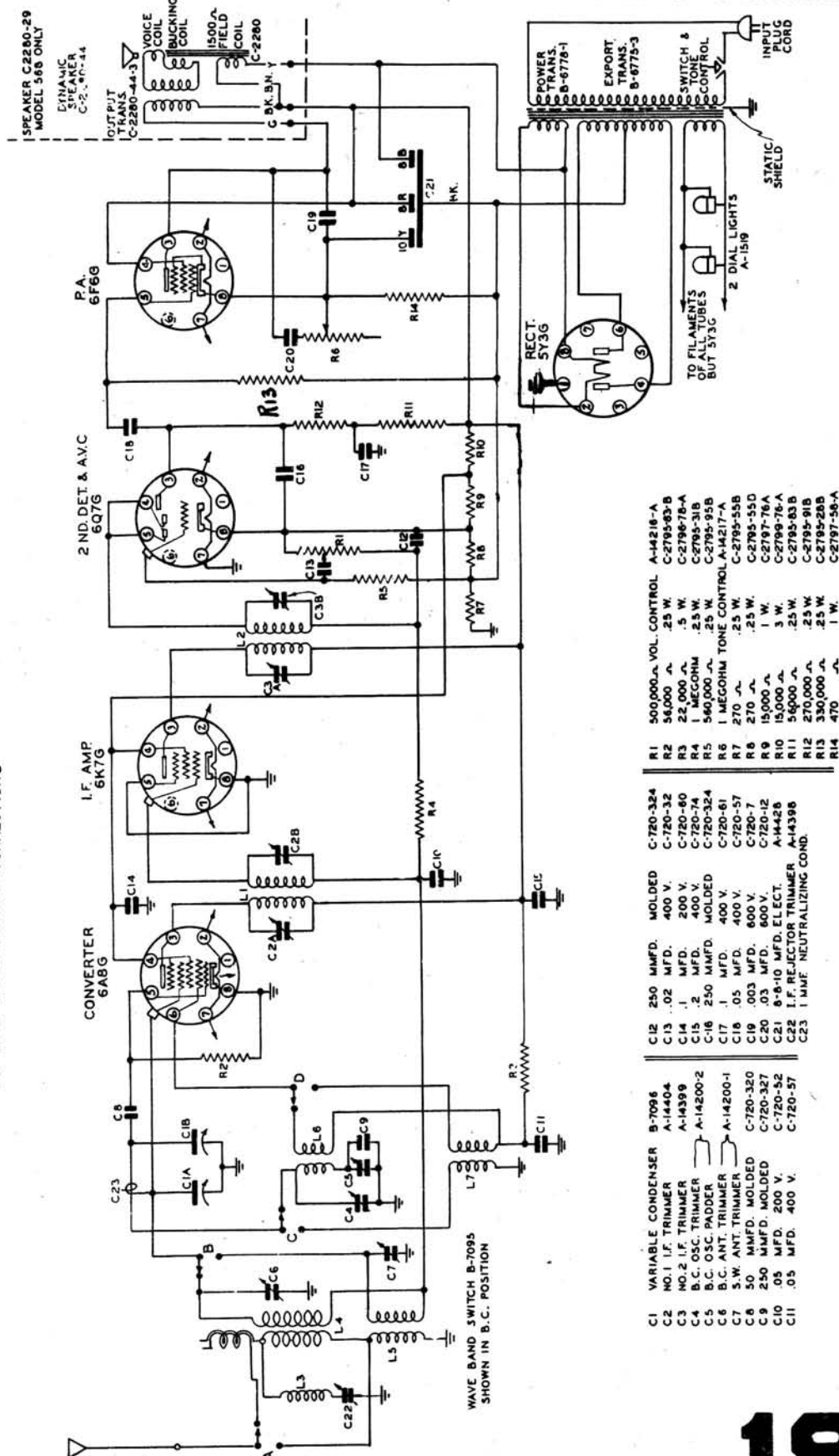
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MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

SPARTON SUPERHETERODYNE MODEL 1068, 1078, 1068X & 1078X
INTERMEDIATE FREQUENCY 450 K.C.
TOP VIEWS OF ALL SOCKET CONNECTIONS

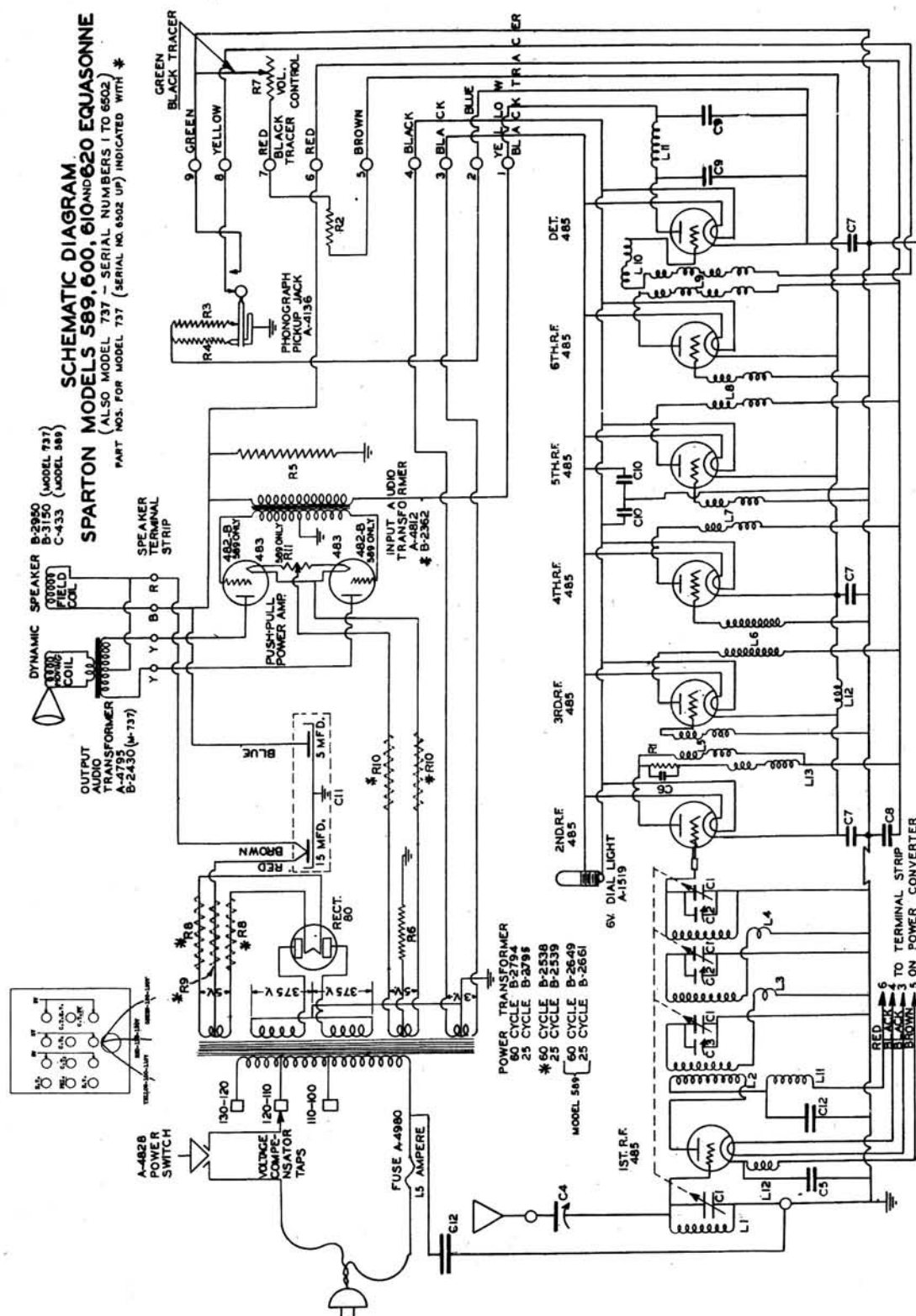


SCHEMATIC DIAGRAM
SPARTON SUPERHETERODYNE MODEL 518, 518X, 558 & 558X 568
INTERMEDIATE FREQUENCY 456 K.C.
TOP VIEW OF ALL SOCKET CONNECTIONS



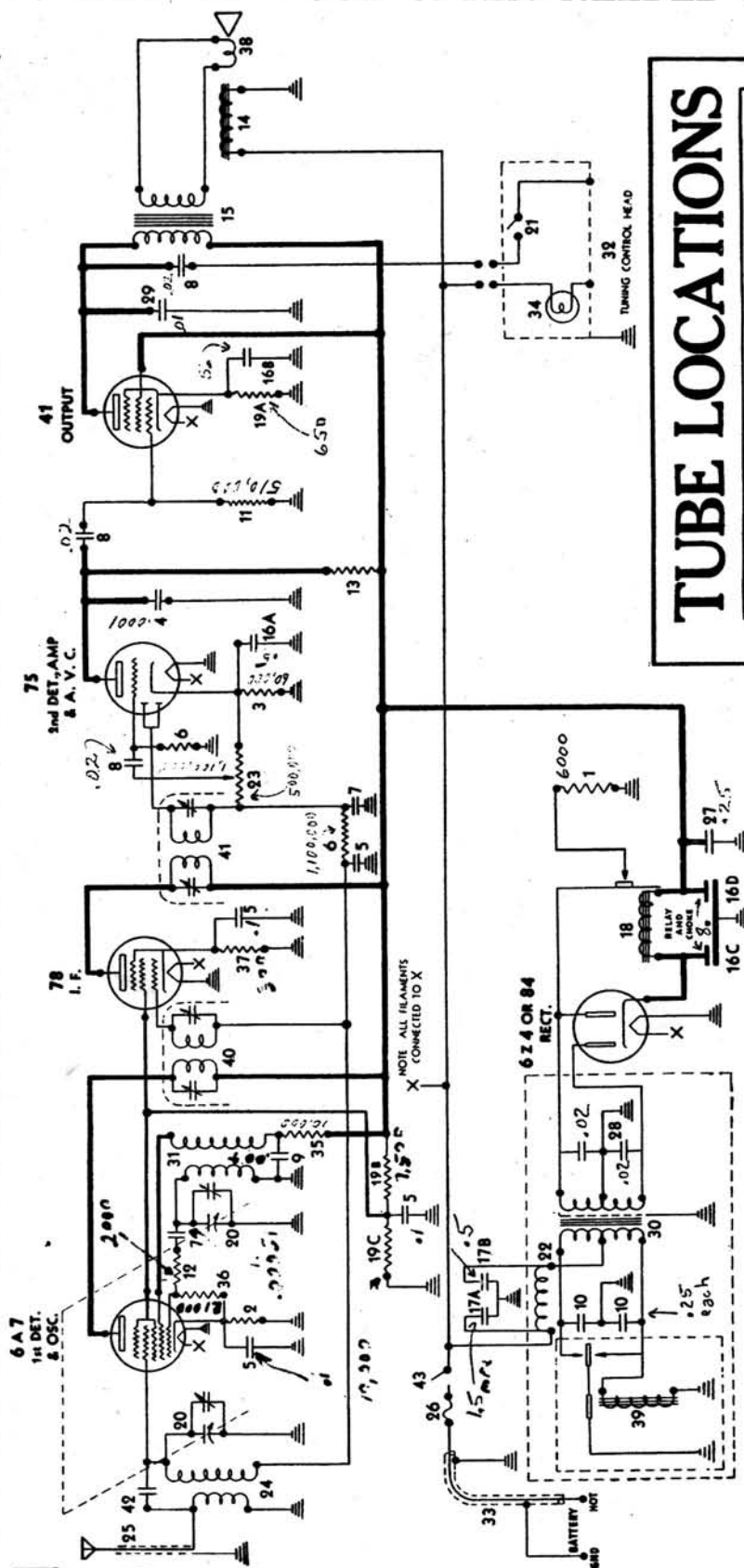
SCHEMATIC DIAGRAM.
ELS 589,600, 610^{AND} 620 EQUASSONNE

SPARTON MODELS 589, 600, 610 AND 620 EQUASONNE
(ALSO MODEL 737 - SERIAL NUMBERS 1 TO 6502)
SCHEMATIC DIAGRAM.
PART NOS. FOR MODEL 737 (SERIAL NO. 6502 UP) INDICATED WITH *

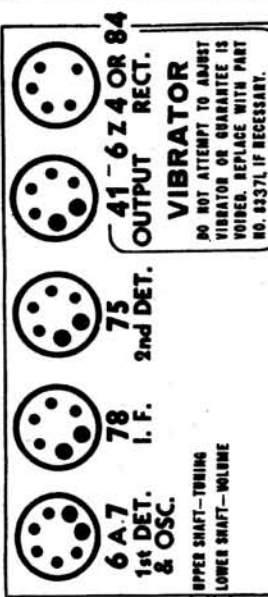


- | | | | | | | |
|--------|-------------------------------|--------|------------------------|----------|---------------------------|----------|
| A-4713 | C1 VARIABLE CONDENSER | B-2048 | L1 1ST TUNING COIL | A-4600 | L11 DIET PLATE CHOKE | A-3306 |
| A-4712 | C2 VARIABLE EQ. CONDENSER | A-4434 | L2 2ND TUNING COIL | A-4711 | L12 CATMIDE CHOKE | A-3382 |
| A-4636 | C3 SINGLE EQ. CONDENSER | A-4375 | L3 3RD TUNING COIL | A-4758 | L13 1ST PLATE CHOKE | A-3239-W |
| A-4635 | C4 ANT. COMPENSATOR | A-4376 | L4 4TH TUNING COIL | A-4759 | * PARTS SHOWN OMITTED FOR | |
| A-4634 | C5 ANT. COMPENSATOR | A-4377 | L5 5TH TUNING COIL | A-4760 | R1 150 Ω RES. | |
| A-4532 | C6 1000P2 MFD. | A-4378 | L6 2ND R.F. TRANS. | A-2963-W | R2 150 Ω RES. | A-6889 |
| A-5032 | C7 10000 Ω | A-2334 | L7 3RD R.F. TRANS. | A-2965-W | R3 1300 Ω 15 W. | A-6888 |
| A-5031 | C8 25 MFD. | A-4107 | L8 4TH R.F. TRANS. | A-2967-W | R10 .5 Ω 2.5 W. | A-6880 |
| A-5030 | C9 250 MFD. | A-4108 | L9 FREE R.F. COIL | A-3238-W | R11 .5 Ω (300 ohm) | A-6897 |
| A-4720 | C10 2 MFD. | A-4770 | L10 4TH FREE GRID COIL | A-3239-W | | |
| A-4719 | C11 1000 Ω 5 W. | | | | | |
| A-4638 | C12 1000 Ω 5 W. | | | | | |
| A-4637 | C13 10000 Ω 2 W. | | | | | |
| A-4633 | C14 10000 Ω 2 W. | | | | | |
| A-4632 | C15 15000 Ω 5 W. | | | | | |
| A-4631 | C16 15000 Ω 5 W. | | | | | |
| A-4630 | C17 15000 Ω VOL. CONT. | | | | | |

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



TUBE LOCATIONS



UPPER SHAFT—TUNING
LOWER SHAFT—VOLUME

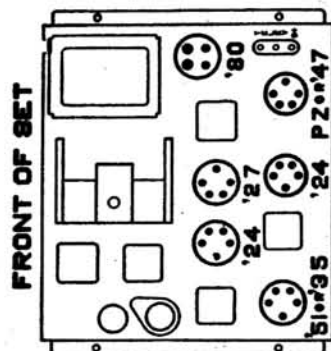
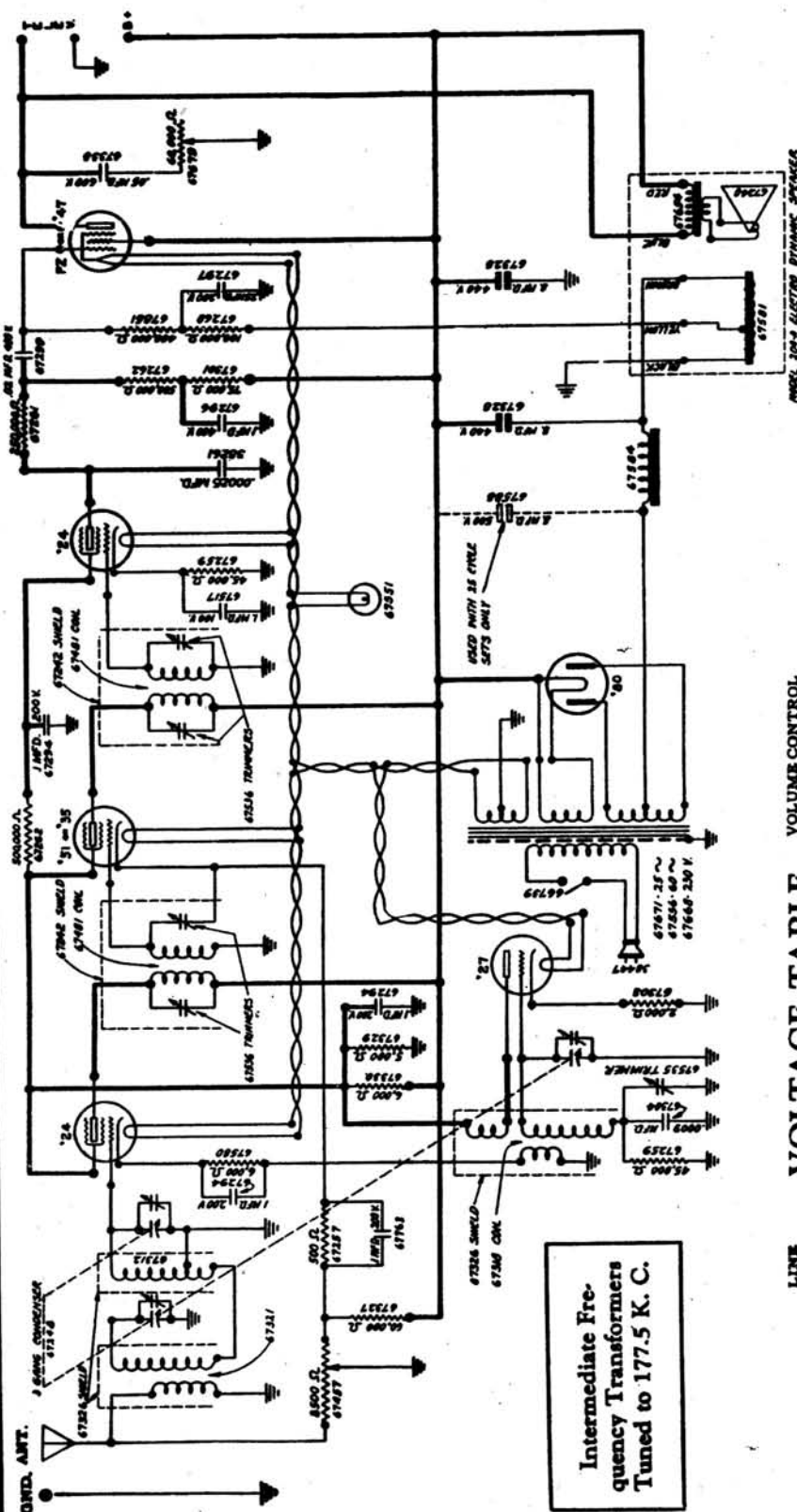
VIBRATOR
DO NOT ATTEMPT TO ADJUST
VIBRATOR OR GUARANTEE IS
VOIDED. REPLACE WITH PART
NO. 83371 IF NECESSARY.

FRONT OF SET

I. F. FREQUENCY 456 K.C.

Tube Type	Position In Circuit	Filament Voltage	Plate Voltage	Screen Grid Voltage	Cathode (Bias) Voltage
6A7	1st Det. and Osc.	5.5	144	70	1.4
78	I.F.	5.5	144	70	2.0
75	2nd Det.	5.5	60	—	1.0
41	Output	5.5	142	144	9.0
84	Rect.	5.5	—	—	179

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS
Circuit Data of Stewart-Warner Models R-102-A, B & E.*



**VOLUME CONTROL
FULL ON**

VOLTAGE TABLE

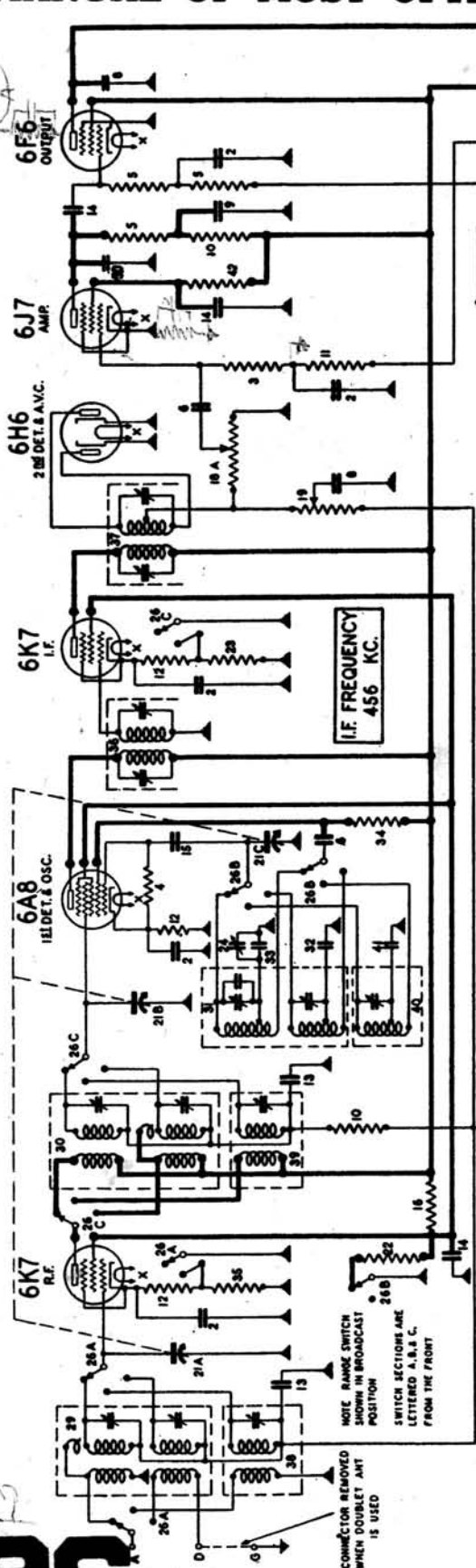
**LINE
VOLTAGE 115**

Type of Tube	Tube Circuit	Filament Voltage	Plate Voltage	Screen Grid Voltage	Bias Voltage
'24	1st Det.	2.45	250	95	6.5
'27	Osc.	2.45	95		9
'51	I. F.	2.40	250	95	3
'24	2nd Det.	2.45	70	30	7
P. Z. or '47	Output	2.45	230	250	15 ±
'80	Rect.	4.8	170		

All D. C. voltages measured with respect to ground, using high resistance voltmeter of 1000 ohm per volt. Readings will vary depending upon voltage range of meter, being higher for higher range instruments. This variation is most marked for second detector screen grid and plate voltages.

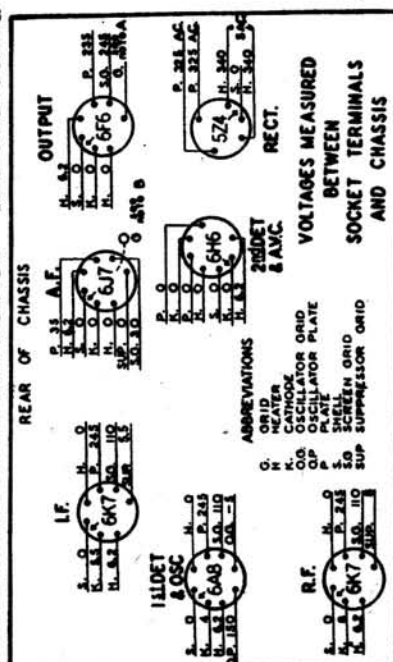
This reading obtained between ground and yellow speaker lead. Direct reading from grid to ground or reading taken with a set tester will show about 3 volts because of high resistance in grid circuit.

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



SOCKET VOLTAGES

LINE VOLTAGE 115 VOLTS Volume Control on Full ANTENNA GROUND
RANGE SWITCH SET ON BROADCAST POSITION DIAL TUNED TO 540 KC.



IMPORTANT: Use a high resistance meter of 1000 ohms per volt.

NOTE A: The grid bias on the 6F6 output tube is -16.5 volts, measured across the resistors 17A and 17B.

NOTE B: The grid bias on the 6J7 amplifier tube is -1.7 volts measured across resistor 17B.

Speaker field resistance is 1800 ohms with coil warm.

R-136 PARTS LIST

DESCRIPTION

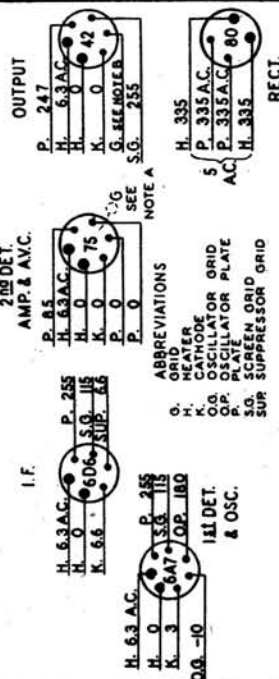
Diagram No.	Part No.	Description
1	38841	Fuse, 1 amp.
2	81630	.1 mfd. 175 volt paper condenser
3	83072	510,000 ohm 1/2 watt carbon resistor
4	83080	51,000 ohm 1/2 watt carbon resistor
5	83082	260,000 ohm 1/2 watt carbon resistor
6	83219	.01 mfd. 600 volt paper condenser
7	83278	Dial lamp 6.3 volt
8	83706	.006 mfd. 600 volt paper condenser
9	83974	.1 mfd. 200 volt paper condenser
10	84198	110,000 ohm 1/2 watt carbon resistor
11	84235	1.1 megohm 1/2 watt carbon resistor
12	84312	Output transformer (R-225-A 8" spkr.)
13	84504	Diaphragm and shell assembly (R-225-A 8 inch speaker)
14	84505	Field coil assembly (R-225-A 8" spkr.)
15	84506	300 ohm 1/2 watt wire wound resistor
16	85053	.05 mfd. 100 volt paper condenser
17	85059	.05 mfd. 300 volt paper condenser
18	85061	.000051 mfd. mica condenser
19	85063	15,000 ohm 1/2 watt carbon resistor
20	85065	375 ohm wire wound bias resistor (one unit)
21	85067	25 ohm wire wound bias resistor (one unit)
22	85073	[See 85073] 250,000 ohm volume control (one unit)
23	85074	150,000 ohm tone control
24	85075	Dual .01 mfd. 750 volt A.C. paper cond.
25	85084	3 Gang variable condenser
26	85116	25,000 ohm 1/2 watt carbon resistor
27	85117	1,000 ohm 1/2 watt carbon resistor
28	85285	Padding trimmer
29	85428	Power trans. 115 V 60 cycle (136-A only)
30	85429	Three deck range switch
31	85430	16 mfd. 300 volt electrolytic condenser
32	85431	16 mfd. 400 volt electrolytic condenser
33	85432	Antenna coil and shield assembly (B & No. 3 S.W.)
34	85433	R. F. coil and shield assembly (B & No. 3 S.W.)
35	85434	Oscillator coil and shield assembly (B & No. 3 S.W.)
36	85440	.00331 mfd. mica condenser
37	85441	.00043 mfd. mica condenser
38	85442	21,000 ohm 1/2 watt carbon resistor
39	85443	2,000 ohm 1/2 watt carbon resistor
40	85444	1st I.F. transformer
41	85445	2nd I.F. transformer
42	85446	Antenna coil assembly (No. 3 S.W.)
43	85447	R.F. coil assembly (No. 3 S.W.)
44	85448	Oscillator coil assembly (No. 3 S.W.)
45	85449	.00137 mfd. mica condenser
46	85450	1.6 megohm 1/2 watt carbon resistor
47	85451	Field coil assembly (No. 3 S.W.)
48	85452	300 ohm 1/2 watt wire wound resistor
49	85453	Output transformer (R-225-A 8" spkr.)
50	85454	Diaphragm and shell assembly (R-225-A 8 inch speaker)
51	85455	Field coil assembly (R-225-A 8" spkr.)
52	85456	300 ohm 1/2 watt wire wound resistor
53	85457	.05 mfd. 100 volt paper condenser
54	85458	.05 mfd. 300 volt paper condenser
55	85459	.000051 mfd. mica condenser
56	85460	15,000 ohm 1/2 watt carbon resistor
57	85461	375 ohm wire wound bias resistor (one unit)
58	85462	25 ohm wire wound bias resistor (one unit)



SOCKET VOLTAGES

LINE VOLTAGE 115 VOLTS VOLUME CONTROL ON FULL ANTENNA GROUNDED
RANGE SWITCH SET ON BROADCAST POSITION DIAL TUNED TO 540 KC.

REAR OF CHASSIS - BOTTOM VIEW



VOLTAGES MEASURED BETWEEN SOCKET TERMINALS AND CHASSIS

IMPORTANT: Use a high resistance meter of 1000 ohms per volt.

NOTE A: The grid bias for the 75 triode section is -1.2 volts measured across resistor 21A.

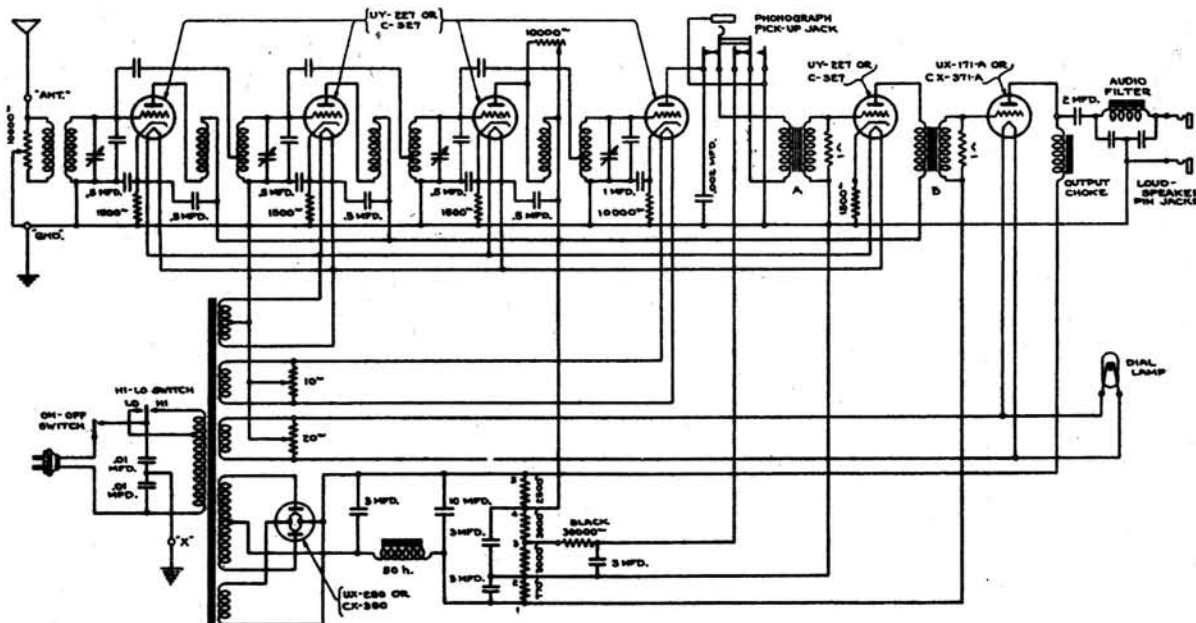
NOTE B: The grid bias on the 42 output tube is -16 volts, measured across the resistors 21A and 21B.

MODEL R-134 PARTS LIST

Part No.	DESCRIPTION	Diag. No.	Part No.	DESCRIPTION	Diag. No.
81630	.1 mfd. 175 volt paper condenser.....	22A	85073	Volume Control (250,000 ohm) }	
83011	.004 mfd. 600 volt paper condenser.....	22B		Line switch.....	
83012	510.0 ohm $\frac{1}{2}$ watt carbon resistor.....	23	85074	Total (500,000 ohm).....	
83080	51,000 ohm $\frac{1}{2}$ watt carbon resistor.....	24	85075	Line .01 mfd. 750 volt paper condenser.....	
83082	260,000 ohm $\frac{1}{2}$ watt carbon resistor.....	25	85116	25,000 ohm $\frac{1}{2}$ watt carbon resistor.....	
83219	.01 mfd. 400 volt paper condenser.....	26	83117	1,000 ohm $\frac{1}{2}$ watt carbon resistor.....	
83249	.001 mfd. 400 volt paper condenser.....	27	85285	Padding trimmer.....	
83439	360 mfd. 400 volt mica condenser.....	28	85428	Power transformer, 115 volt 60 cycle.....	
83706	.006 mfd. 600 volt paper condenser.....	29	35441	420 mmfd. $\frac{1}{2}$ mica condenser.....	
84198	110,000 ohm $\frac{1}{2}$ watt carbon resistor.....	30	85443	21,000 ohm $\frac{1}{2}$ watt carbon resistor.....	
84215	1 megohm $\frac{1}{2}$ watt carbon resistor.....	31	85454	11 mmfd. mica condenser.....	
84321	Output transformer (on R-227-A Spkr.).....	32	85788	1st I.F. transformer.....	
84506	Diaphragm and shell assembly for (R-227-A Spkr.).....	33	85789	2nd I.F. transformer.....	
84507	Field coil and housing for (R-227-A Spkr.).....	34	A C 85790	Three gang condenser.....	
84759	Pilot lamp, 6-8 volt.....	35	A C 85791	Range switch.....	
84888	300 ohm $\frac{1}{2}$ watt W. W. resistor.....	36	85792	16 mfd. 475 volt electrolytic condenser.....	
85053	.05 mfd. 100 volt paper condenser.....	37	85793	16 mfd. 475 volt electrolytic condenser.....	
85059	.05 mfd. 300 volt paper condenser.....	38	85829	Antenna coil and shield assembly.....	
85061	51 mmfd. mica condenser.....	39	85830	R.F. coil and shield assembly.....	
85063	15,000 ohm 2 watt carbon resistor.....	40	85831	Oscillator coil and shield assembly.....	
85067	20 ohm 1/2 watt carbon resistor (wire wound).....	41	85837	.00193 mfd. mica condenser.....	

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

SCHEMATIC DIAGRAM



STROMBERG-CARLSON NOS. 635 AND 636 RECEIVERS

The following table shows how the filament, plate and grid voltages vary with different line voltages, in the No. 635 receiver. The plate voltages are measured between tube plates and Tap No. 2 of the voltage divider. The grid voltages of the heater type tubes are measured across the cathode resistors; and that of the audio output tube is measured between Taps No. 1 and No. 2 of the voltage divider.

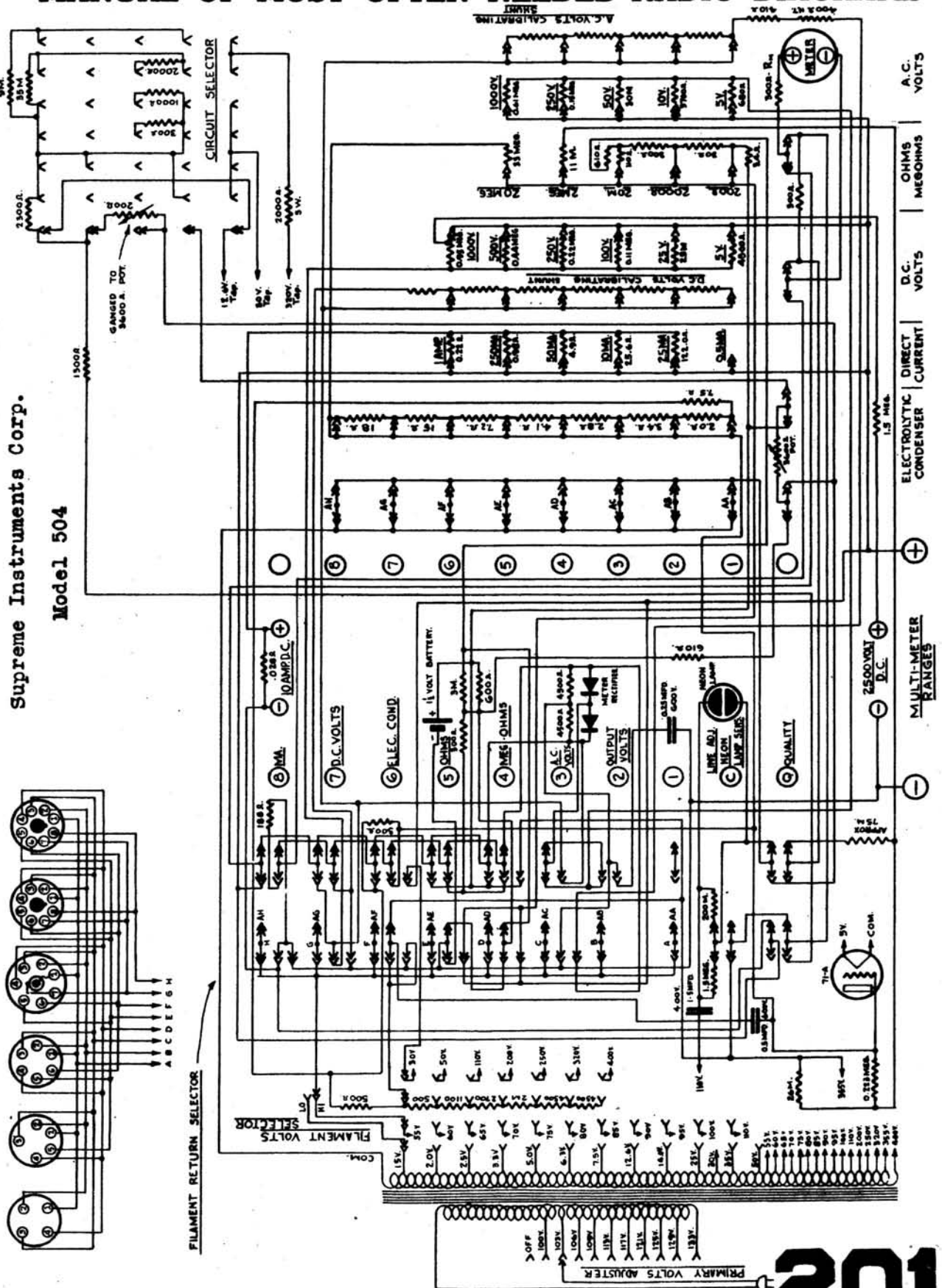
Line Voltage "HI-LO" Switch	105 "LO"	110 "LO"	115 "LO"	115 "HI"	120 "HI"	125 "HI"
<i>UX-280</i>						
Filament Voltage (RMS)	4.5	4.75	5.0	4.5	4.7	4.93
Voltage per anode (RMS)	236.0	248.0	259.0	236.0	248.0	258.0
<i>Amplifiers</i>						
Heater Voltage (RMS)	2.17	2.27	2.38	2.16	2.26	2.35
Plate Voltage	106.0	110.0	115.0	106.0	110.0	115.0
Grid Voltage	— 5.0	— 5.5	— 5.75	— 4.7	— 5.2	— 5.6
<i>Detector</i>						
Heater Voltage (RMS)	2.11	2.22	2.32	2.1	2.2	2.3
Plate Voltage	39.0	40.0	42.0	38.0	40.0	41.0
Grid Voltage	— 3.25	— 3.5	— 3.75	— 3.25	— 3.5	— 3.75
<i>Audio Output Tube</i>						
Filament Voltage (RMS)	4.5	4.75	5.0	4.53	4.72	4.94
Plate Voltage	167.0	175.0	184.0	165.0	174.0	182.0
Grid Voltage	—37.0	—40.0	—41.0	—36.0	—40.0	—41.0

NOTE—The grid voltage on the 1st audio tube will be slightly lower than that on the R. F. amplifier tubes, due to the drop in the secondary of the 1st audio transformer.

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

Supreme Instruments Corp.

Model 504



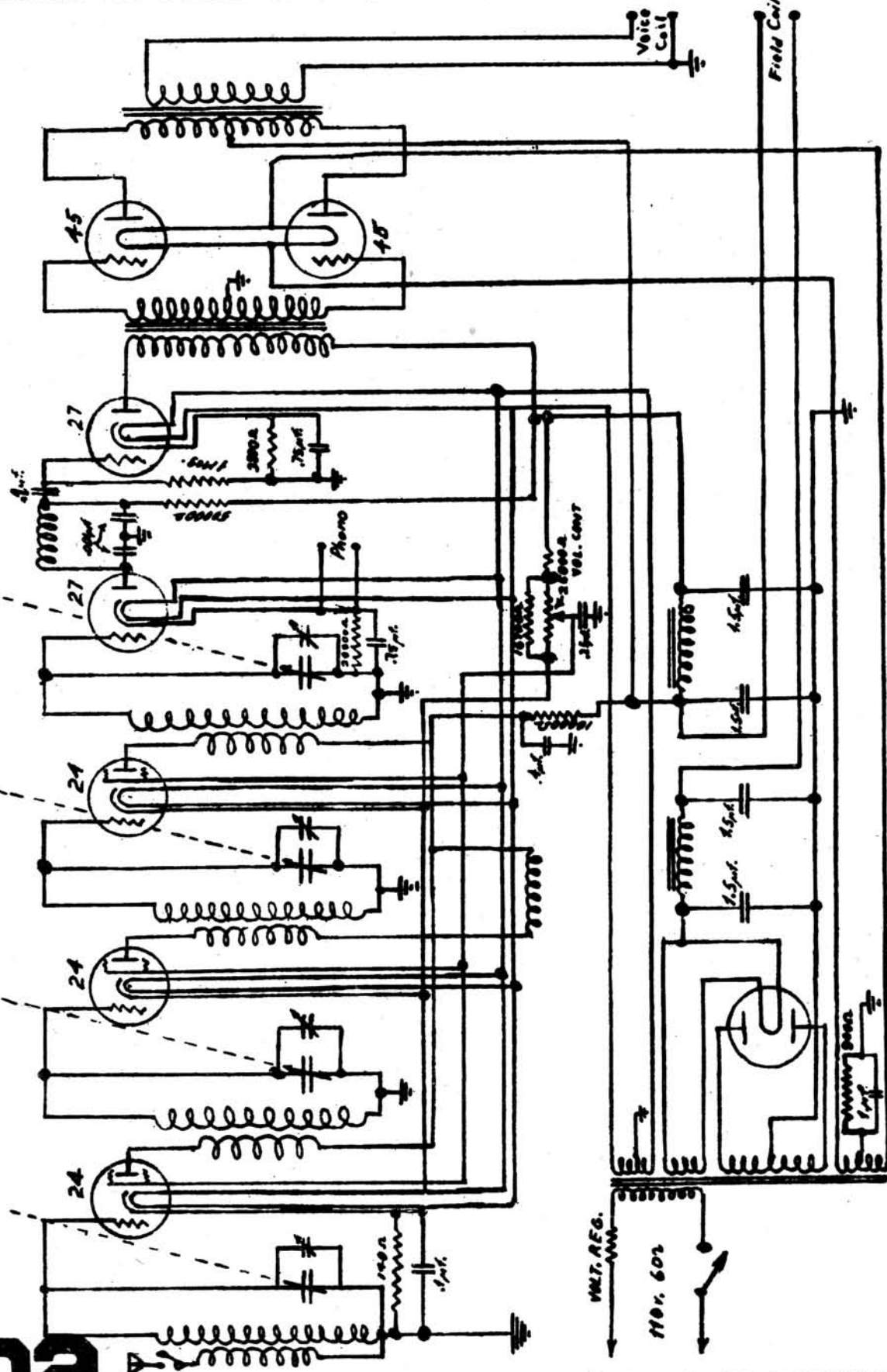
COMPILED BY M. N. BEITMAN, SUPREME PUBLICATIONS

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MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

Transformer Corp. of America

Models 51, 53, 55

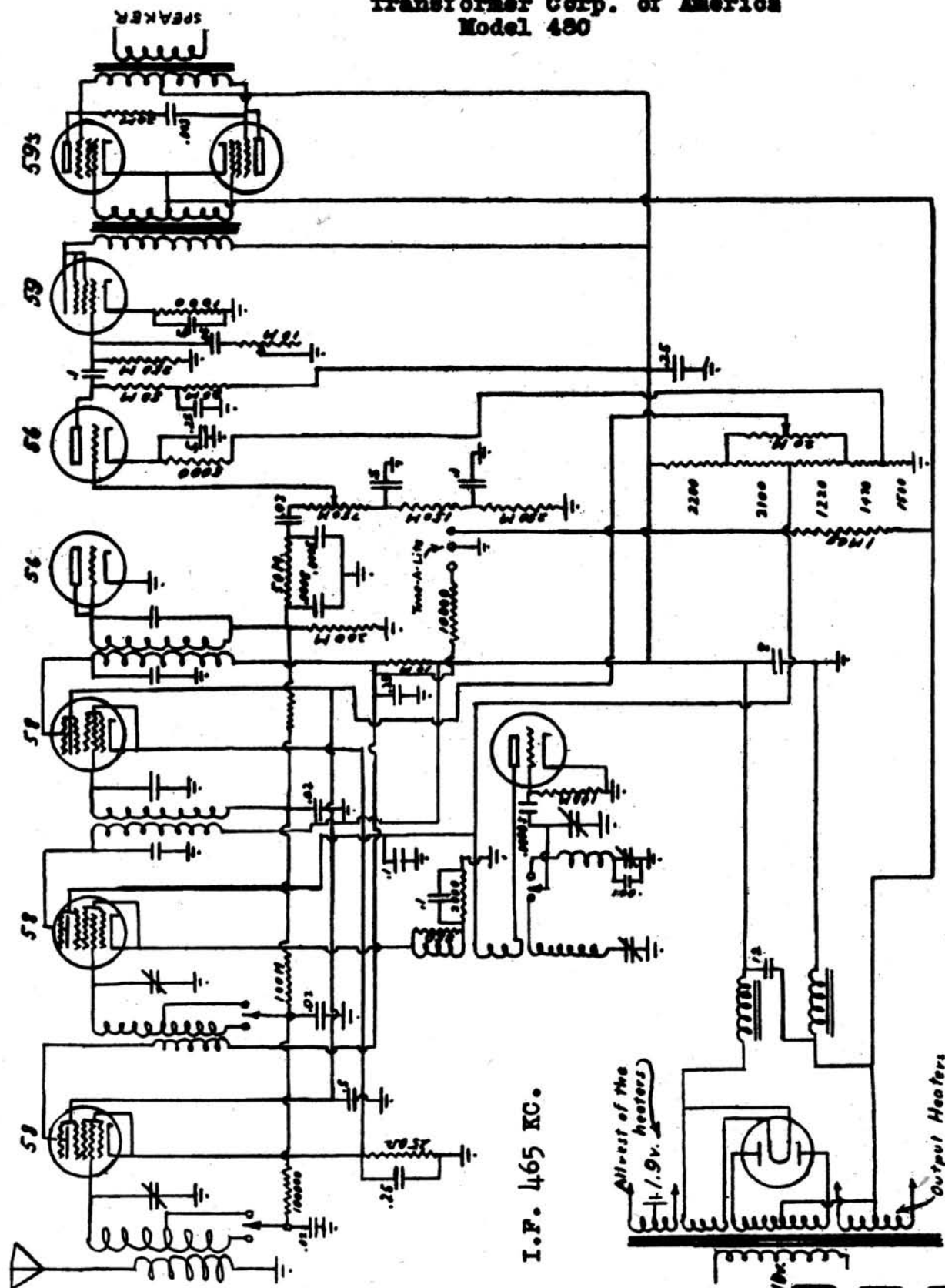


202

COMPILED BY M. N. BEITMAN, SUPREME PUBLICATIONS

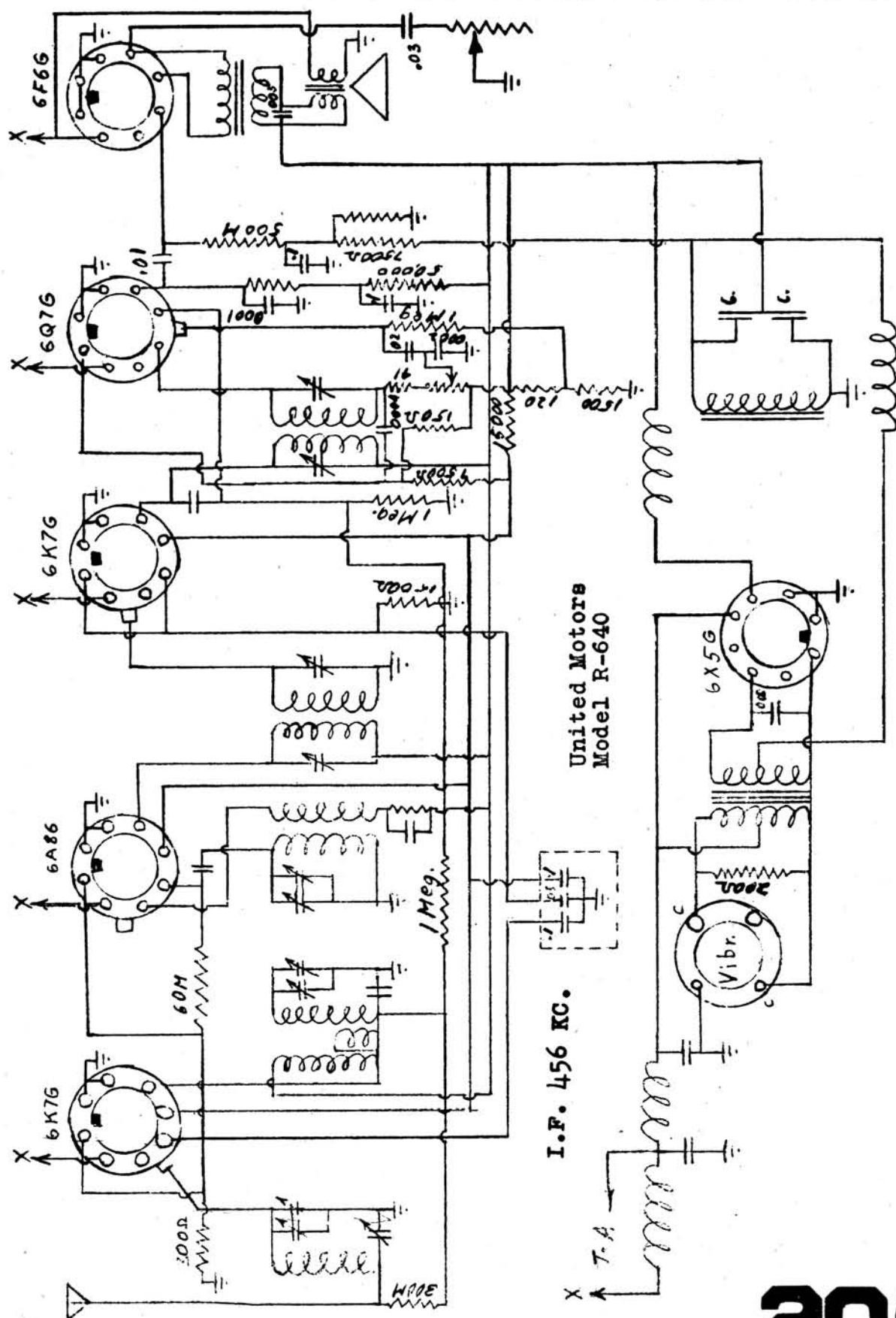
MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

Transformer Corp. of America
Model 480



I.P. 465 KC.

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



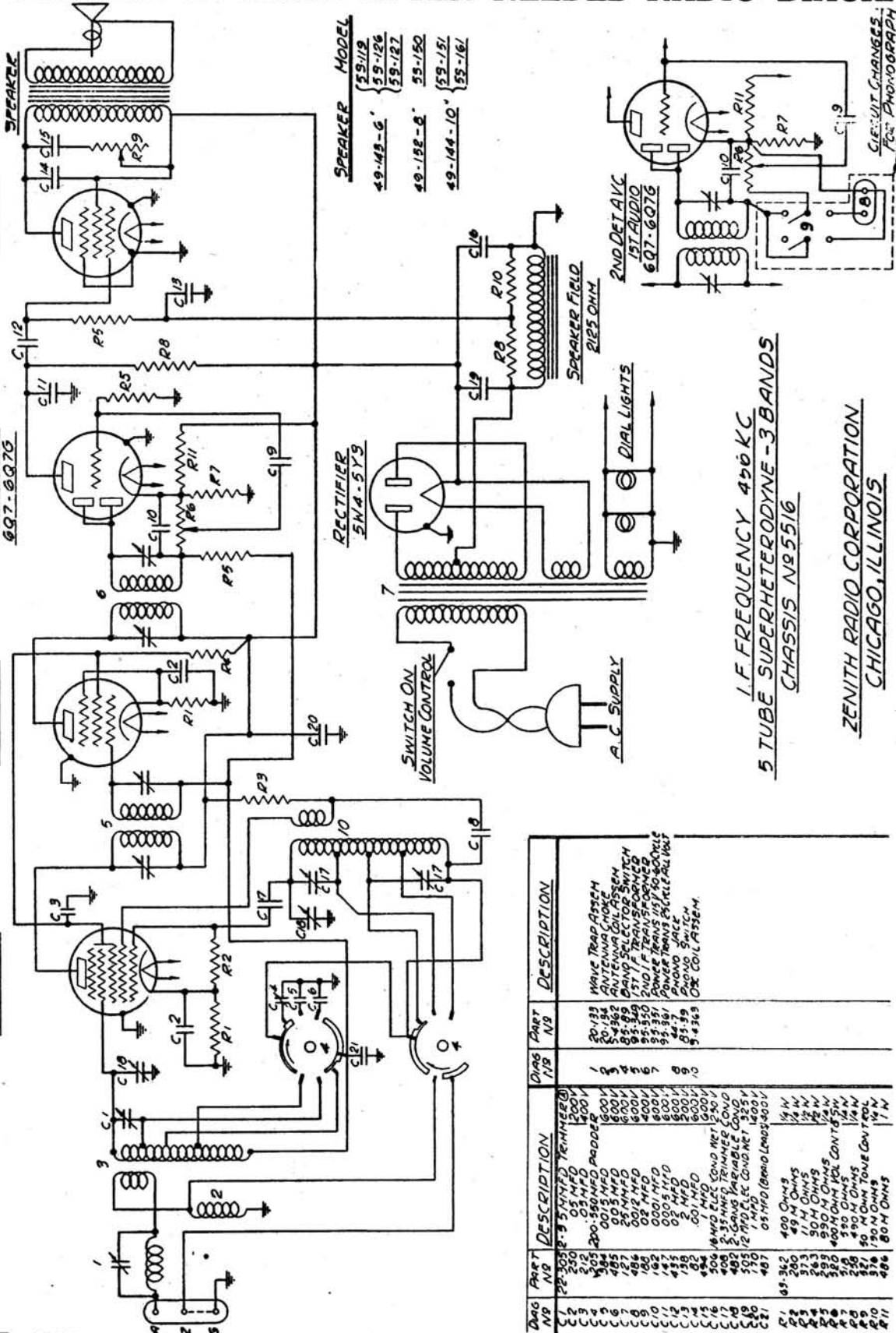
206

DET-09C
049-6486

1.7
6K7-6K7G

2ND DET - A.V.C.
1ST AUDIO
697-6976

POWER
GFG - GFGG



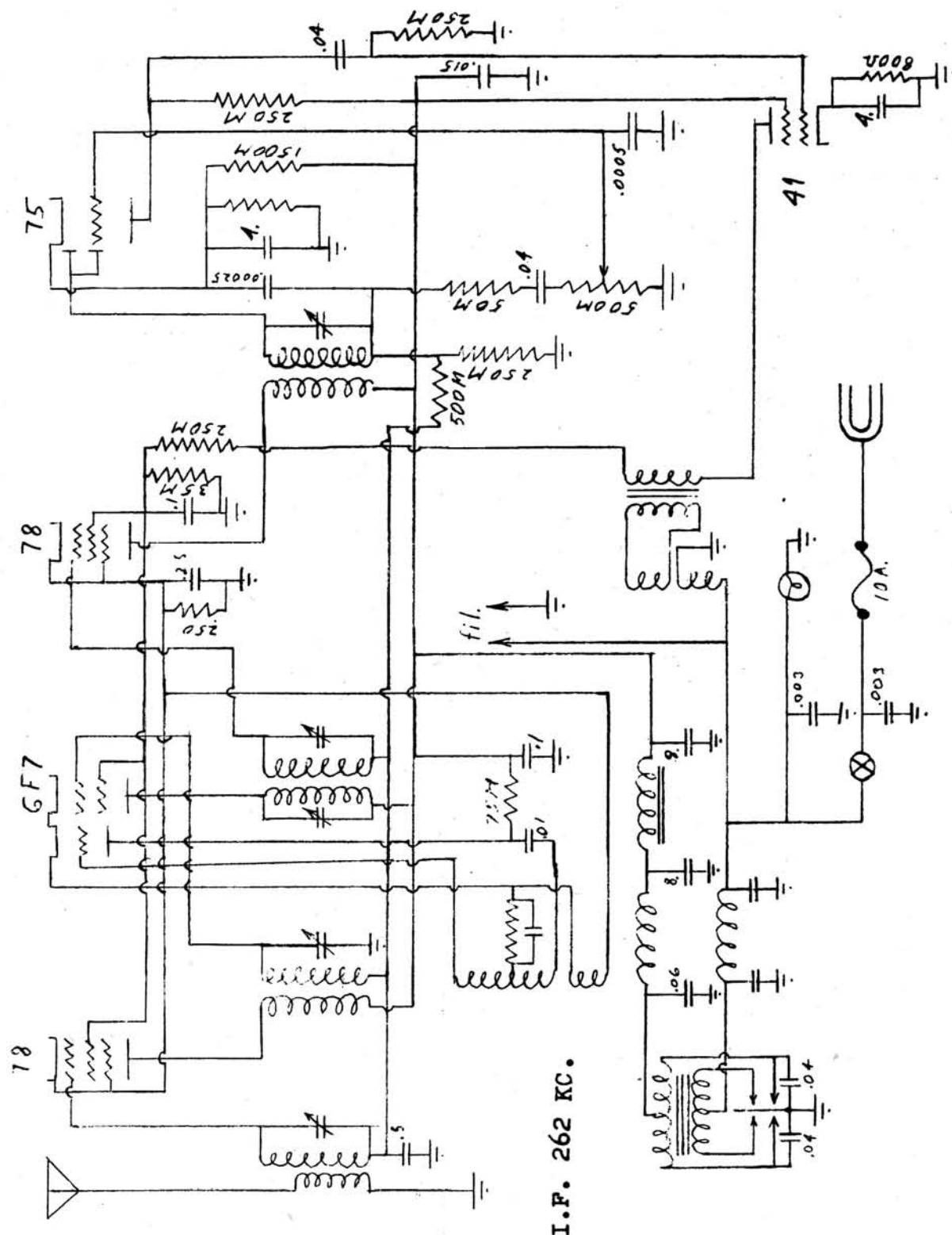
Models 5-S-119, 5-S-126, 5-S-127, 5-S-150, 5-S-151, 5-S-161. (Chassis No. 5516)

ZENITH RADIO CORPORATION
CHICAGO, ILLINOIS

I.F. FREQUENCY 450 KC
5 TUBE SUPERHETERODYNE - 3 BANDS
CHASSIS NO 5516

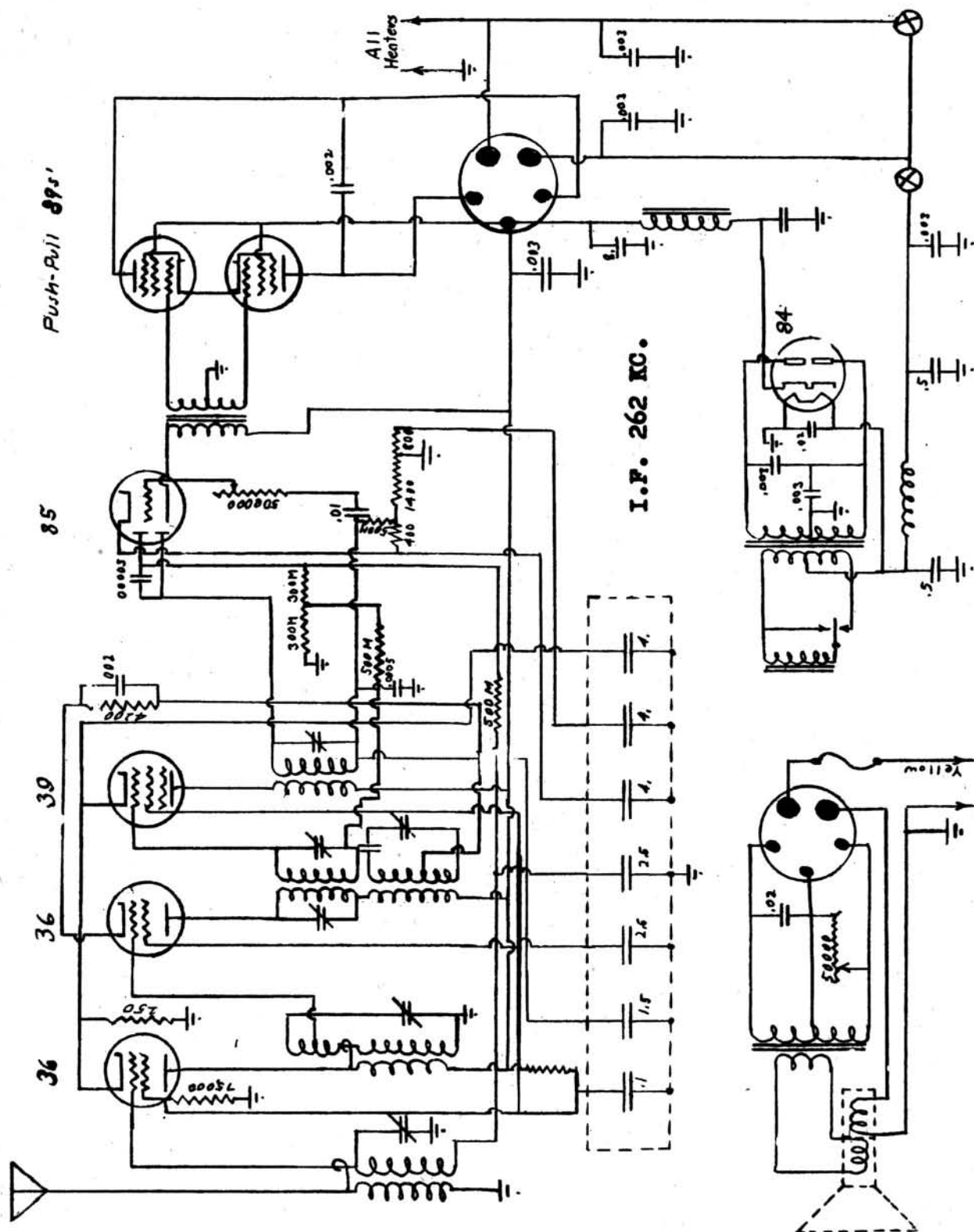
Part No	Description	Part No	Description
22-303	2-5 MINUT THERMO	20-133	WAVE TRAP ASSEM
230	05 MFD	20-134	ANTENNA COIL ASSEM
231	05 MFD	5-362	ANTENNA COIL ASSEM
232	200-500MFD PADDLE	85-89	BAND SELECTOR SWITCH
233	0015 MFD	95-149	15T F TRANSFORMER
485	005 MFD	95-150	500T F TRANSFORMER
177	205 MFD	95-350	500T F TRANSFORMER
486	001 MFD	95-381	POWER TRANS PULSER ALL WAVE
103	003 MFD	44-7	PHONO JACE
104	0005 MFD	85-9	PHONO SWITCH
178	0005 MFD	5-363	ONE COIL ASSEM.
435	2 MFD		
138	00 MFD		
436	00 MFD		
504	1/2 MFD		
408	1/2 MFD		
482	2-35 MFD TRIMMER COND		
503	2-35 MFD TRIMMER COND		
483	2-35 MFD TRIMMER COND		
487	01 MFD (BAND LENS) 400V		
95-362	400 OHMS		
21	49 M OHMS		
22	11 M OHMS		
23	50 M OHMS		
24	99 M OHMS		
25	400 M OHMS		
26	400 M OHMS		
27	400 M OHMS		
28	400 M OHMS		
29	400 M OHMS		
30	400 M OHMS		
31	400 M OHMS		
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100	400 M OHMS		

United Motors Service Model 4037



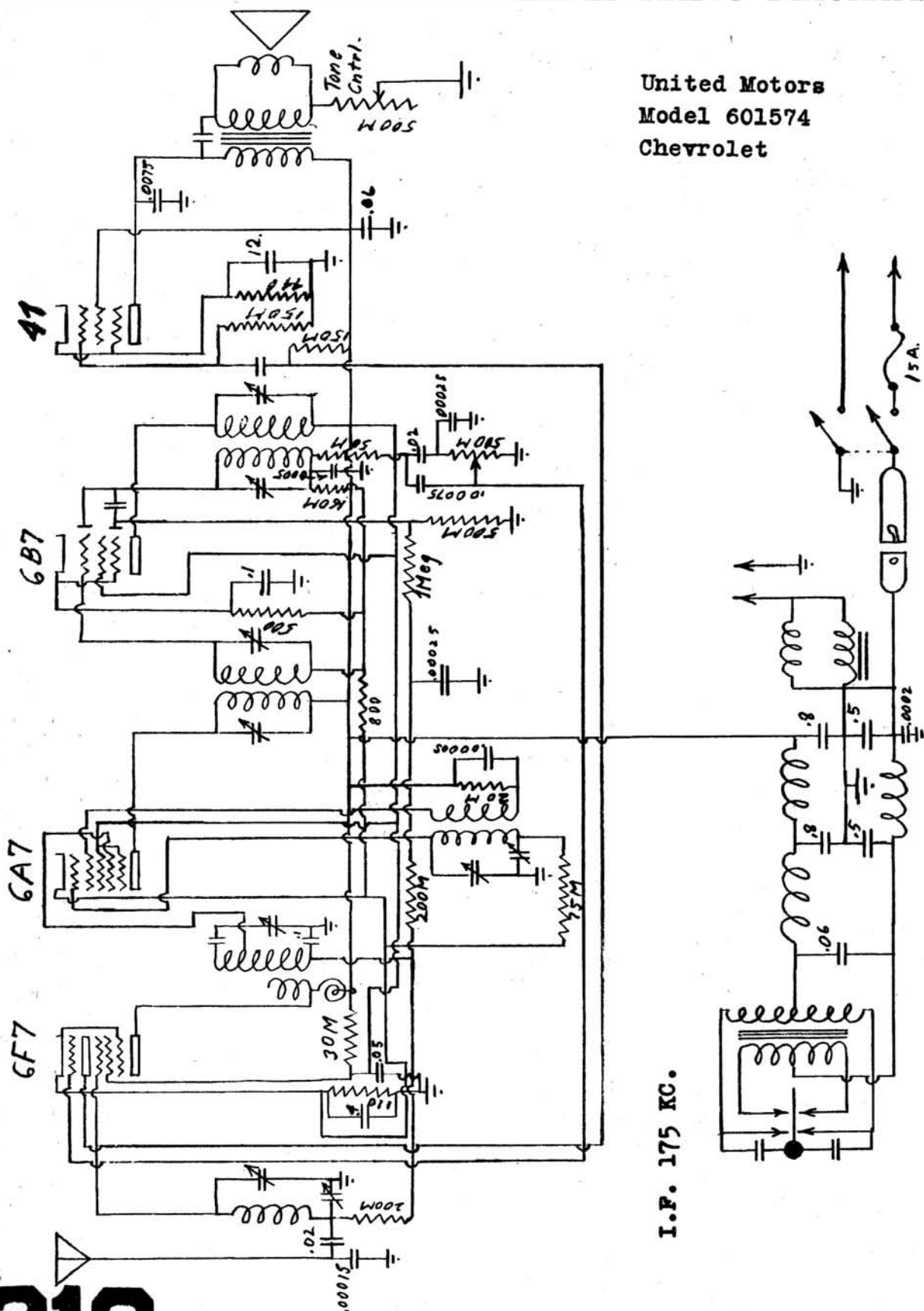
MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

United Motors Model 364441



MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

United Motors
Model 601574
Chevrolet



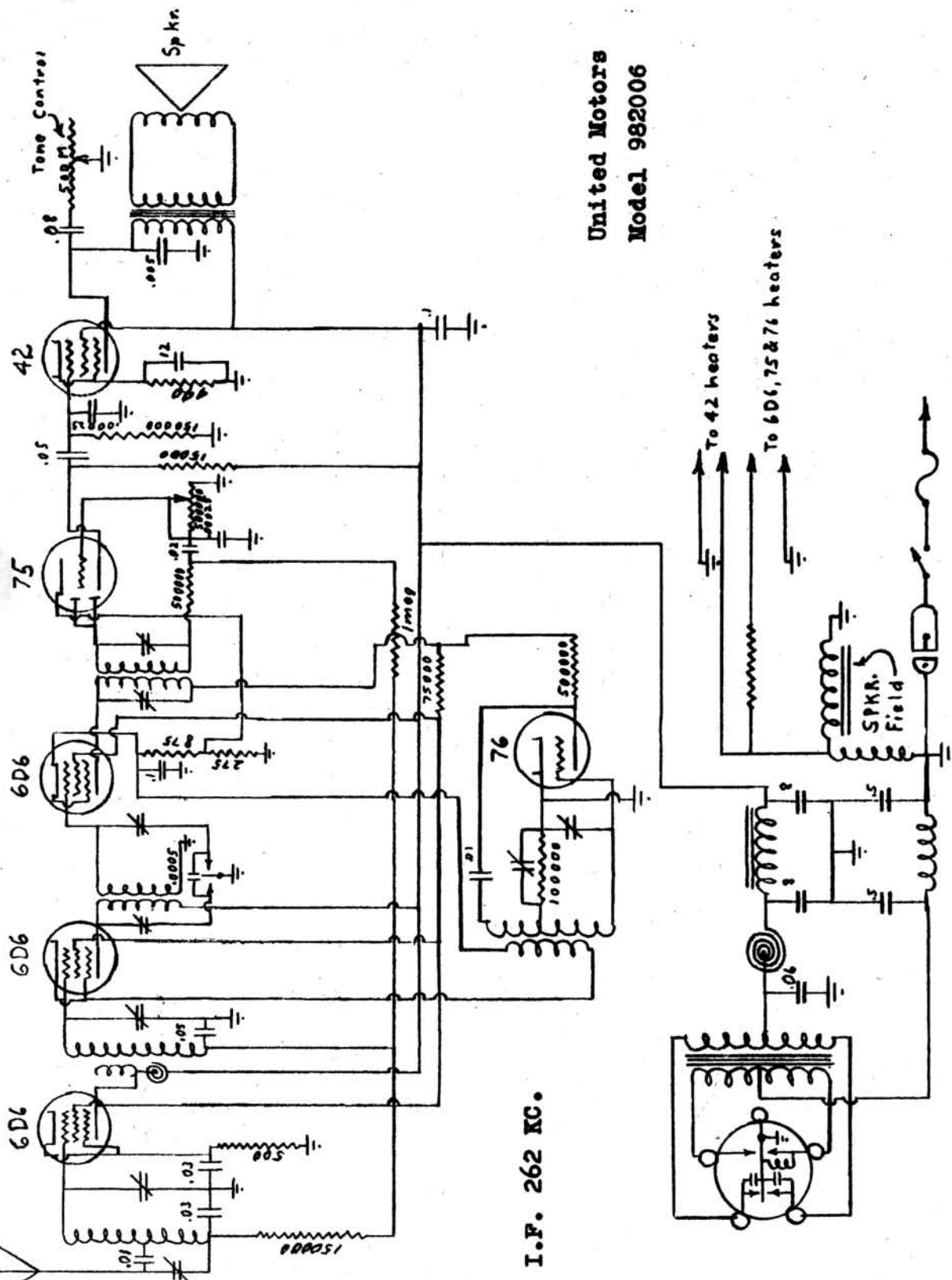
I.F. 175 KC.

United Motors
Model 985100



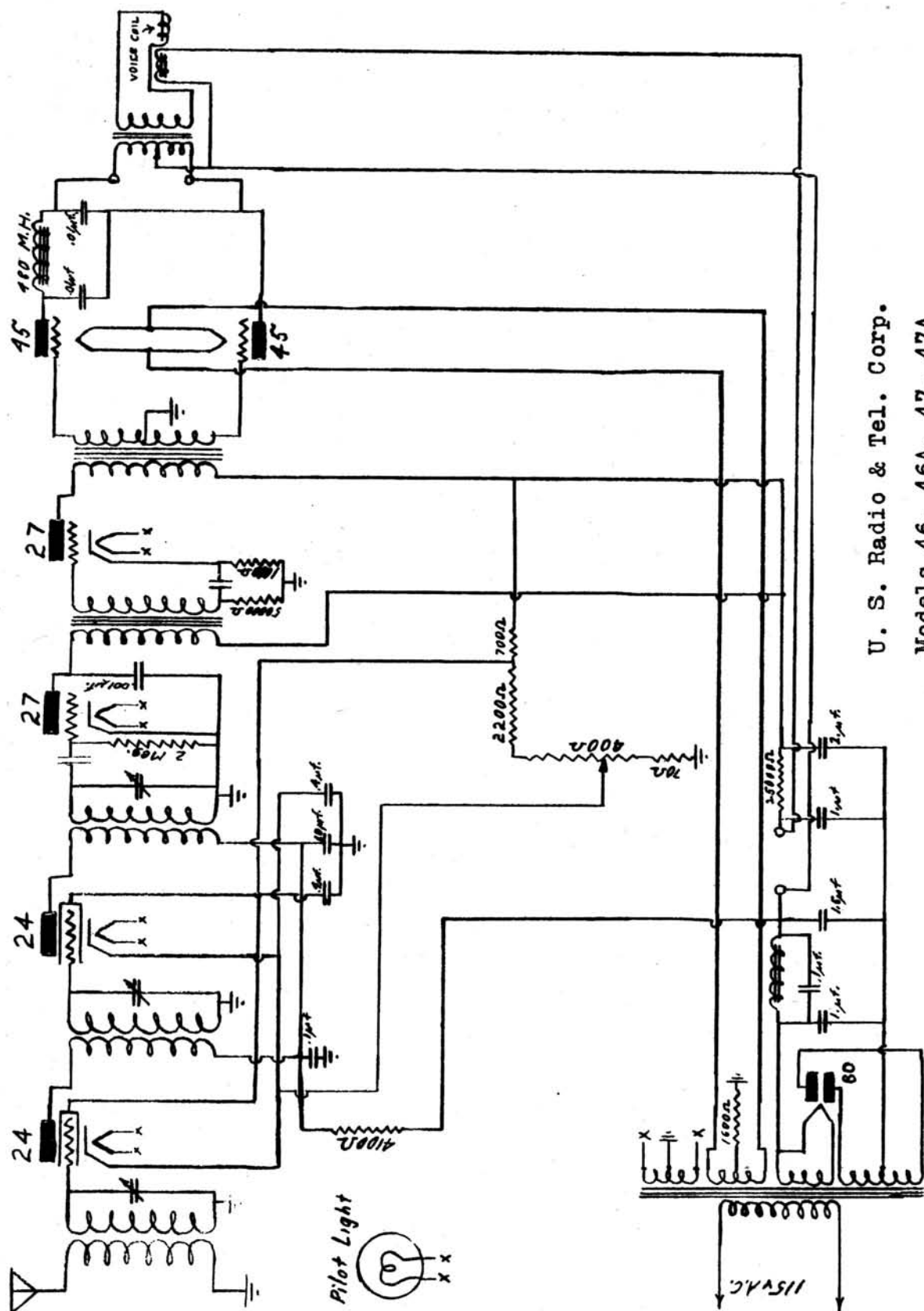
MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

United Motors
Model 982006



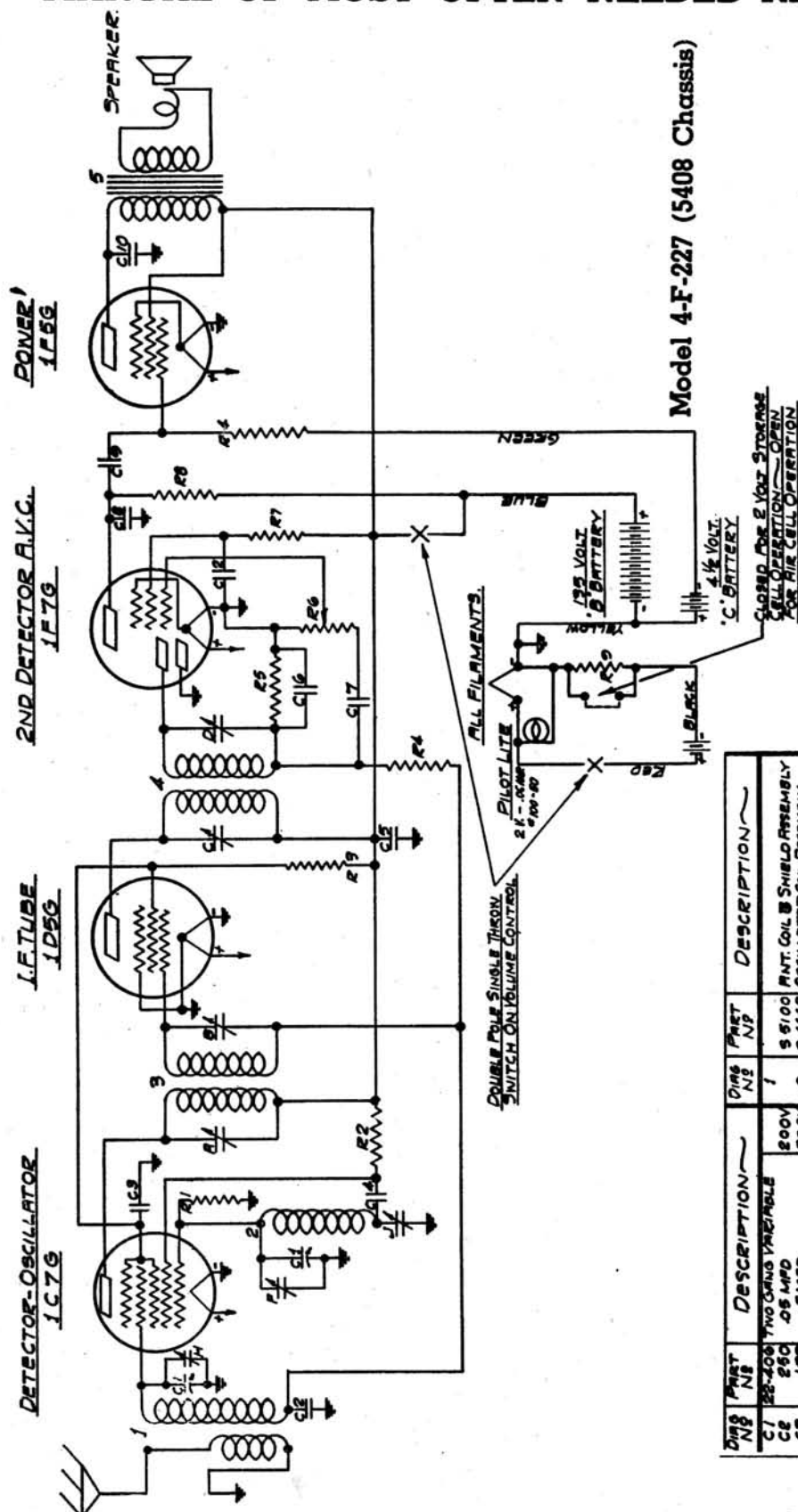
I.F. 262 KC.

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



U. S. Radio & Tel. Corp.
Models 46, 46A, 47, 47A
Apex

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



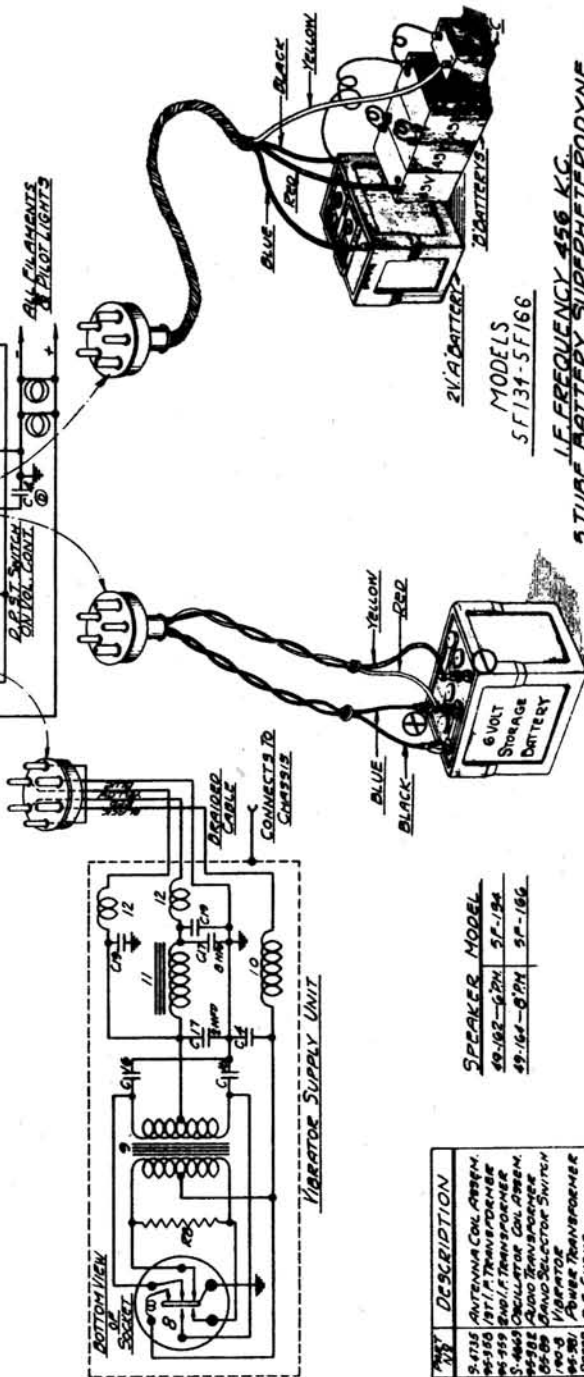
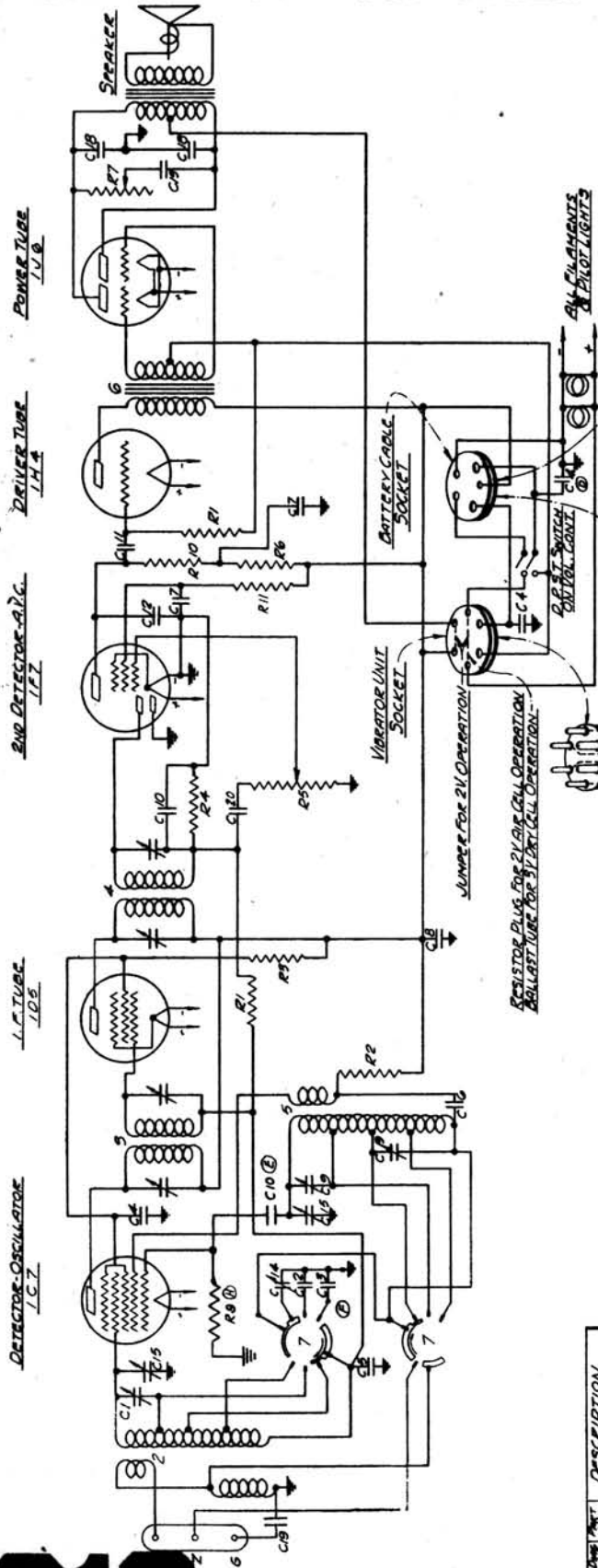
Model 4-F-227 (5408 Chassis)

I.F. FREQUENCY 456 K.C.
4TUBE BATTERY SUPERHETERODYNE
CHASSIS N25408

ZENITH RADIO CORPORATION

[illegible]

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



NO	QTY	DESCRIPTION	UNIT
C1	300	2.5 AMP PROBE	600V
C2	400	.005 MFD	600V
C3	400	.005 MFD	200V
C4	99	.5 MFD	400V
C5	437	.5 MFD	600V
C6	250	.001E MFD	600V
C7	400	.05 MFD	200V
C8	212	.05 MFD	400 V
C9	400	2.5 AMP PROBE	600V
C10	188	.005 MFD	400V
C11	188	.005 MFD	600V
C12	188	.005 MFD	600V
C13	171	.05 MFD	600V
C14	205	200-150 MFD PROBE	200V
C15	400	2 GANG VARIABLE COND	200V
C16	485	2 GANG VARIABLE COND	600V
C17	26	250 OHM DRY ELEC.	600V
C18	245	.01 MFD (TUBULAR)	400V
C19	245	.01 MFD (TUBULAR)	200V
C20	327	.02 MFD (TUBULAR)	200V
R1	253	90 M OHMS	1/4 W
R2	400	400 OHMS	1/4 W
R3	400	400 OHMS	1/4 W
R4	481	400 OHMS	1/4 W
R5	241	1 MEG OHM 1/2 CONT	5W
R6	67	99 OHMS	1/4 W
R7	52	500 OHM TONE CONTROL	1/4 W
R8	584	500 OHMS	1/4 W
R9	353	150 OHMS	1/4 W
R10	107	150 OHMS	1/4 W
R11	441	1 MEG OHM	1/4 W

QTY	UNIT	DESCRIPTION
1	EA	ANTENNA COIL ASSEM.
2	EA	TRANSFORMER
3	EA	5-459
4	EA	5-463
5	EA	OSCILLATOR COIL ASSEM
6	EA	5-462
7	EA	5-469
8	EA	5-468
9	EA	5-469
10	EA	5-469
11	EA	5-469
12	EA	5-469

SPEAKER MODEL
49-102-6"PM
49-164-0"PM

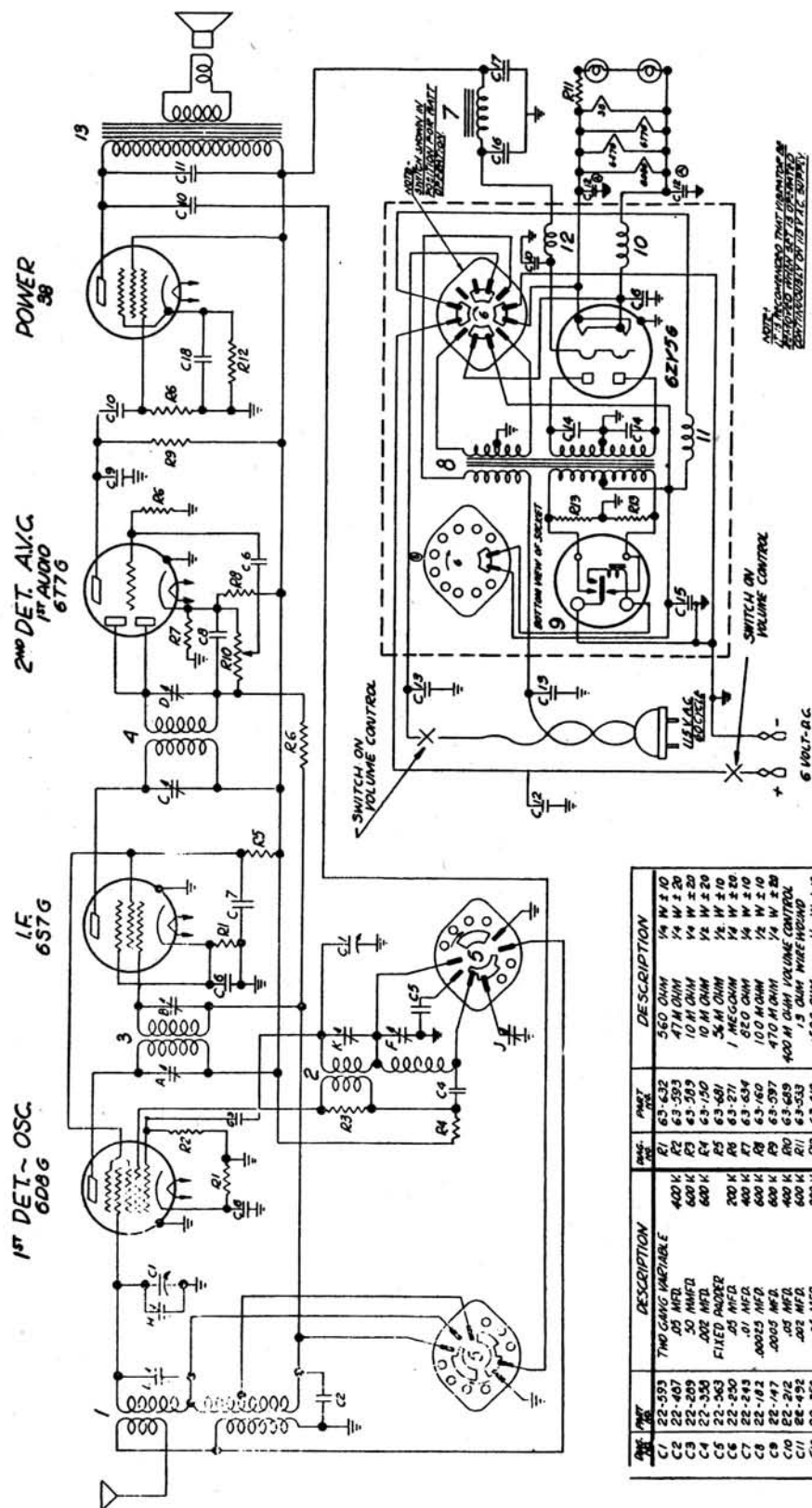
1	5-4735	ANTENNA COIL ASSEM.
2	95-950	1ST I.F. TRANSFORMER
3	95-950	2ND I.F. TRANSFORMER
4	95-959	OSCILLATOR COIL ASSEM.
5	95-982	3RD TRANSFORMER
6	95-982	4TH TRANSFORMER
7	95-989	PAUSE SELECTOR SWITCH
8	190-0	VIBRATOR
9	95-980	POWER TRANSFORMER
10	52778	R.F. CHOKE
11	99-945	FILTER CHOKE
12	70-146	R.F. CHOKE

MODELS
SF134-SF166

I.F. FREQUENCY 456 K.C.
5TUBE BATTERY SUPERHETERODYNE
CHASSIS NO 5518

ZENITH RADIO CORPORATION

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



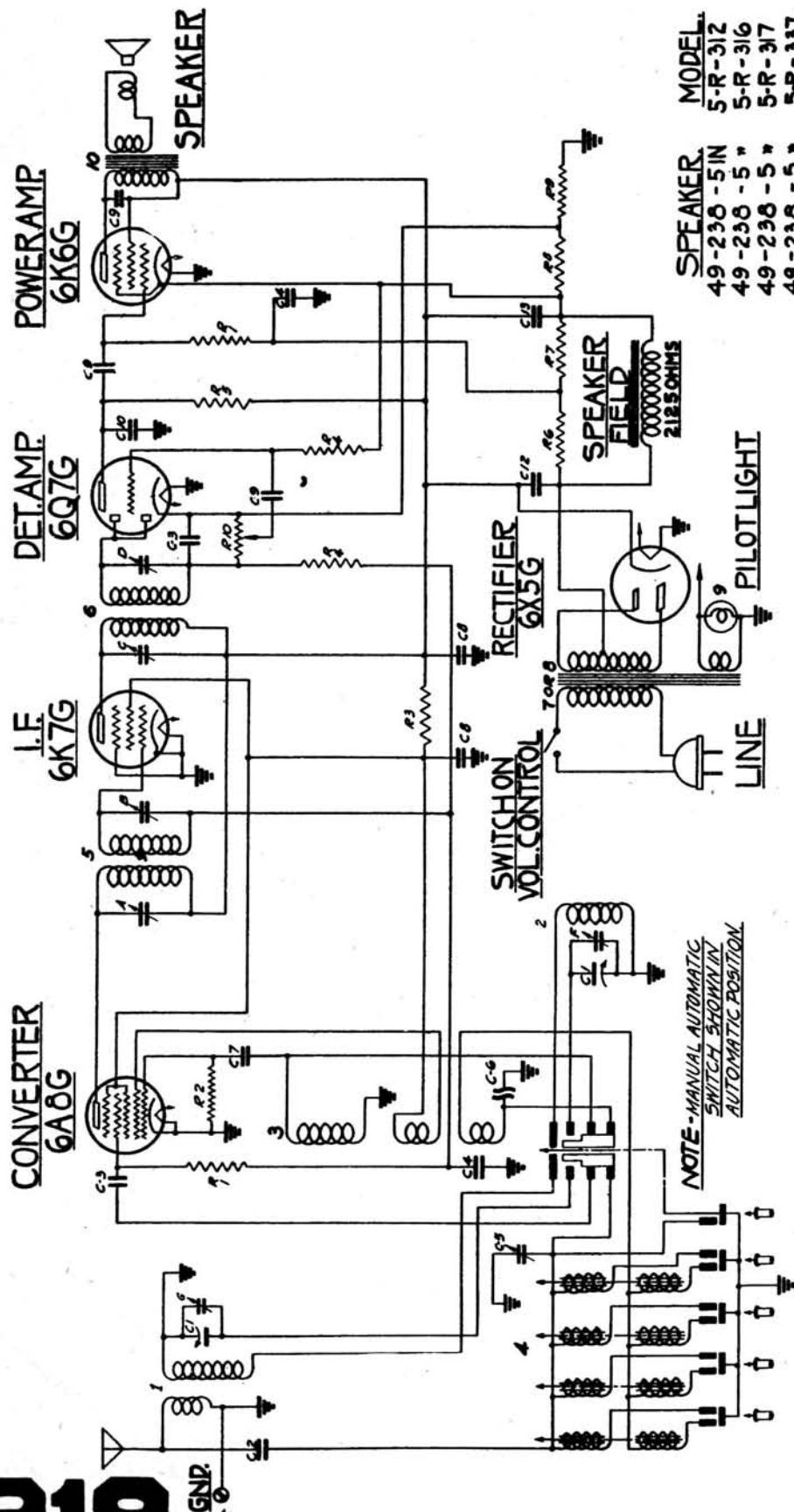
I.F. FREQUENCY 456 K.C.
5 TUBE BATTERY SUPERHETERODYNE
6VOLT D.C. #115 VOLT A.C.
CHASSIS NO. 5524

ZENITH RADIO CORP.

Models 5-J-217, 5-J-247, 5-J-255 (5524 Chassis)

Part No.	Part	Description	Part No.	Description
1	63-432	360 OHM 1/4 W ±10	1	ANT. COIL & SHIELD ASSEMBLY
2	63-433	470 OHM 1/4 W ±10	2	OSCILLATOR COIL ASSEMBLY
3	63-434	100 OHM 1/4 W ±10	3	1st I.F. TRANSFORMER
4	63-435	100 OHM 1/4 W ±10	4	2nd I.F. TRANSFORMER
5	63-436	100 OHM 1/4 W ±10	5	BAND SELECTOR SWITCH
6	63-437	100 OHM 1/4 W ±10	6	POWER SUPPLY SWITCH
7	63-438	100 OHM 1/4 W ±10	7	POWER CHOKES
8	63-439	100 OHM 1/4 W ±10	8	VIBRATOR
9	63-440	100 OHM 1/4 W ±10	9	R.F. CHOKE ASSEMBLY
10	63-441	100 OHM 1/4 W ±10	10	R.F. CHOKE
11	63-442	100 OHM 1/4 W ±10	11	SPEAKER TRANSFORMER
12	63-443	100 OHM 1/4 W ±10	12	
13	63-444	100 OHM 1/4 W ±10	13	
14	63-445	100 OHM 1/4 W ±10	14	
15	63-446	100 OHM 1/4 W ±10	15	
16	63-447	100 OHM 1/4 W ±10	16	
17	63-448	100 OHM 1/4 W ±10	17	
18	63-449	100 OHM 1/4 W ±10	18	
19	63-450	100 OHM 1/4 W ±10	19	
20	63-451	100 OHM 1/4 W ±10	20	
21	63-452	100 OHM 1/4 W ±10	21	
22	63-453	100 OHM 1/4 W ±10	22	
23	63-454	100 OHM 1/4 W ±10	23	
24	63-455	100 OHM 1/4 W ±10	24	
25	63-456	100 OHM 1/4 W ±10	25	
26	63-457	100 OHM 1/4 W ±10	26	
27	63-458	100 OHM 1/4 W ±10	27	
28	63-459	100 OHM 1/4 W ±10	28	
29	63-460	100 OHM 1/4 W ±10	29	
30	63-461	100 OHM 1/4 W ±10	30	
31	63-462	100 OHM 1/4 W ±10	31	
32	63-463	100 OHM 1/4 W ±10	32	
33	63-464	100 OHM 1/4 W ±10	33	
34	63-465	100 OHM 1/4 W ±10	34	
35	63-466	100 OHM 1/4 W ±10	35	
36	63-467	100 OHM 1/4 W ±10	36	
37	63-468	100 OHM 1/4 W ±10	37	
38	63-469	100 OHM 1/4 W ±10	38	
39	63-470	100 OHM 1/4 W ±10	39	
40	63-471	100 OHM 1/4 W ±10	40	
41	63-472	100 OHM 1/4 W ±10	41	
42	63-473	100 OHM 1/4 W ±10	42	
43	63-474	100 OHM 1/4 W ±10	43	
44	63-475	100 OHM 1/4 W ±10	44	
45	63-476	100 OHM 1/4 W ±10	45	
46	63-477	100 OHM 1/4 W ±10	46	
47	63-478	100 OHM 1/4 W ±10	47	
48	63-479	100 OHM 1/4 W ±10	48	
49	63-480	100 OHM 1/4 W ±10	49	
50	63-481	100 OHM 1/4 W ±10	50	
51	63-482	100 OHM 1/4 W ±10	51	
52	63-483	100 OHM 1/4 W ±10	52	
53	63-484	100 OHM 1/4 W ±10	53	
54	63-485	100 OHM 1/4 W ±10	54	
55	63-486	100 OHM 1/4 W ±10	55	
56	63-487	100 OHM 1/4 W ±10	56	
57	63-488	100 OHM 1/4 W ±10	57	
58	63-489	100 OHM 1/4 W ±10	58	
59	63-490	100 OHM 1/4 W ±10	59	
60	63-491	100 OHM 1/4 W ±10	60	
61	63-492	100 OHM 1/4 W ±10	61	
62	63-493	100 OHM 1/4 W ±10	62	
63	63-494	100 OHM 1/4 W ±10	63	
64	63-495	100 OHM 1/4 W ±10	64	
65	63-496	100 OHM 1/4 W ±10	65	
66	63-497	100 OHM 1/4 W ±10	66	
67	63-498	100 OHM 1/4 W ±10	67	
68	63-499	100 OHM 1/4 W ±10	68	
69	63-500	100 OHM 1/4 W ±10	69	
70	63-501	100 OHM 1/4 W ±10	70	
71	63-502	100 OHM 1/4 W ±10	71	
72	63-503	100 OHM 1/4 W ±10	72	
73	63-504	100 OHM 1/4 W ±10	73	
74	63-505	100 OHM 1/4 W ±10	74	
75	63-506	100 OHM 1/4 W ±10	75	
76	63-507	100 OHM 1/4 W ±10	76	
77	63-508	100 OHM 1/4 W ±10	77	
78	63-509	100 OHM 1/4 W ±10	78	
79	63-510	100 OHM 1/4 W ±10	79	
80	63-511	100 OHM 1/4 W ±10	80	
81	63-512	100 OHM 1/4 W ±10	81	
82	63-513	100 OHM 1/4 W ±10	82	
83	63-514	100 OHM 1/4 W ±10	83	
84	63-515	100 OHM 1/4 W ±10	84	
85	63-516	100 OHM 1/4 W ±10	85	
86	63-517	100 OHM 1/4 W ±10	86	
87	63-518	100 OHM 1/4 W ±10	87	
88	63-519	100 OHM 1/4 W ±10	88	
89	63-520	100 OHM 1/4 W ±10	89	
90	63-521	100 OHM 1/4 W ±10	90	
91	63-522	100 OHM 1/4 W ±10	91	
92	63-523	100 OHM 1/4 W ±10	92	
93	63-524	100 OHM 1/4 W ±10	93	
94	63-525	100 OHM 1/4 W ±10	94	
95	63-526	100 OHM 1/4 W ±10	95	
96	63-527	100 OHM 1/4 W ±10	96	
97	63-528	100 OHM 1/4 W ±10	97	
98	63-529	100 OHM 1/4 W ±10	98	
99	63-530	100 OHM 1/4 W ±10	99	
100	63-531	100 OHM 1/4 W ±10	100	

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



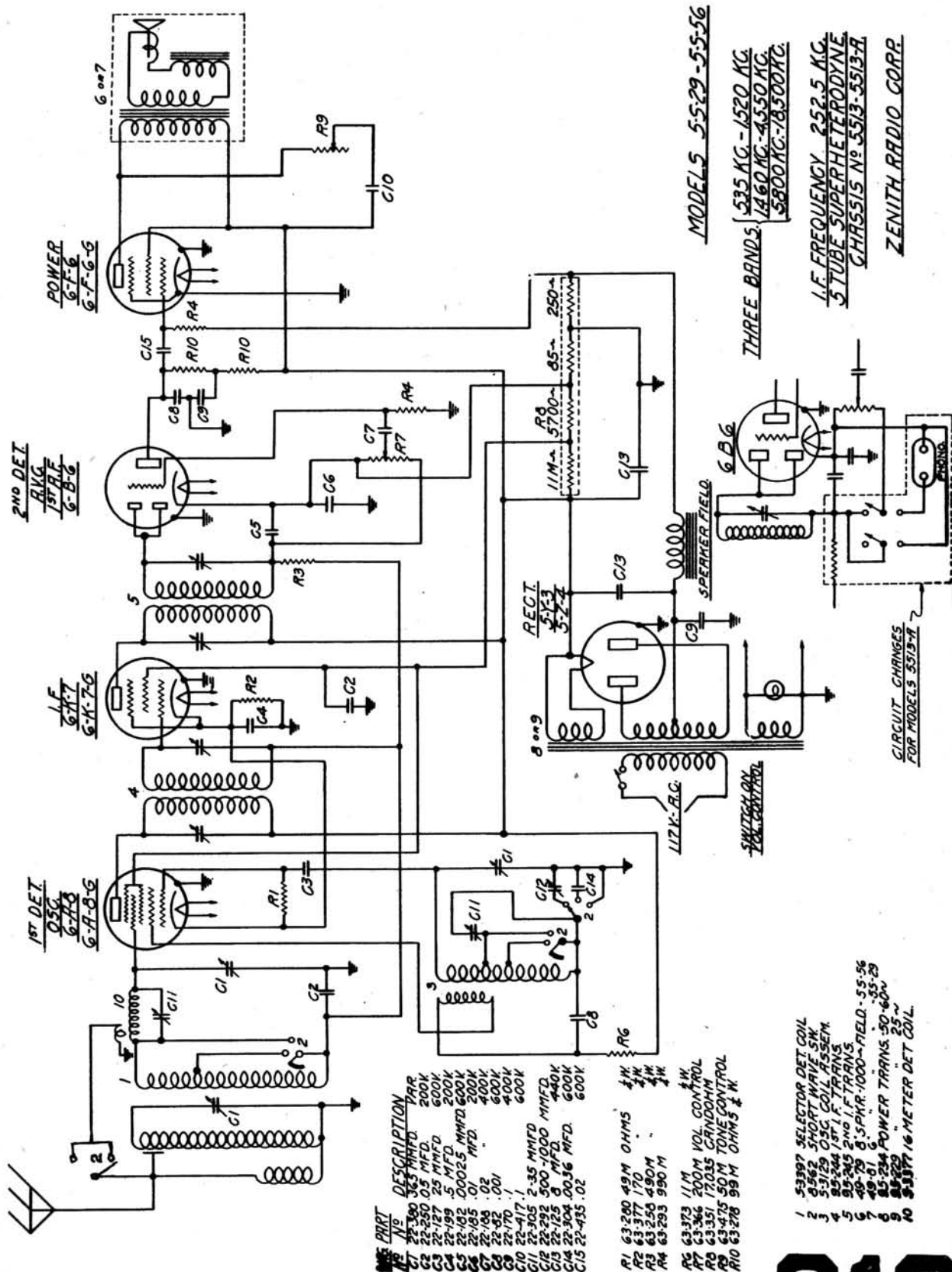
SPEAKER
 49-238-5IN
 49-238-5*
 49-238-5*
 49-238-5*
 49-238-5*
MODEL
 5-R-312
 5-R-316
 5-R-317
 5-R-337
 5-R-303

I.F. FREQUENCY 455 K.C.
5 TUBE SUPERHETERODYNE
CHASSIS N° 5528 A.C.
ZENITH RADIO CORPORATION

Part No.	Description	Part No.	Description	Part No.	Description	Part No.	Description
C-1	22-485 7ND 6AN6 IAR COND	R-1	63-597 470 M OHM	4	18" I.F. TRANS	10	100-36 57WATER TRANS
C-2	22-289 50 M MFD	R-2	63-593 47 M OHM	5	18" I.F. TRANS	11	18" I.F. TRANS PRP.
C-3	22-152 0.001 MFD	R-3	63-208 12 M OHM	6	18" I.F. TRANS	12	18" I.F. TRANS SEC
C-4	22-250 .05 MFD	R-4	63-271 1 MEG OHM	7	18" I.F. TRANS	13	18" I.F. TRANS SEC
C-5	22-319 TRIMMER COND.	R-5	63-296 220 M OHM	8	18" I.F. TRANS	14	18" I.F. TRANS SEC
C-6	22-729 COMPENSATING COND.	R-6	63-650 300 M OHM	9	18" I.F. TRANS	15	18" I.F. TRANS SEC
C-7	22-182 .00025 MFD	R-7	63-200 100 M OHM	10	18" I.F. TRANS	16	18" I.F. TRANS SEC
C-8	22-212 .01 MFD	R-8	63-573 80 OHM WIRE WOUND	11	18" I.F. TRANS	17	18" I.F. TRANS SEC
C-9	22-196 .01 MFD	R-9	63-686 150 OHM WIRE WOUND	12	18" I.F. TRANS	18	18" I.F. TRANS SEC
C-10	22-147 .0005 MFD	R-10	63-935 220 M OHM IRL. COND.	13	18" I.F. TRANS	19	18" I.F. TRANS SEC
C-11	22-691 8 MFD ELECTROLYTIC 450V	1	5-5000 ANTENNA COIL (450V)	14	18" I.F. TRANS	20	18" I.F. TRANS SEC
C-12	22-691 8 MFD ELECTROLYTIC 350V	2	5-6039 OSC. COIL (450V)	15	18" I.F. TRANS	21	18" I.F. TRANS SEC
C-13	22-691 8 MFD ELECTROLYTIC 350V	3	10-167 COMPENSATING COIL	16	18" I.F. TRANS	22	18" I.F. TRANS SEC

NOTE - MANUAL AUTOMATIC SWITCH SHOWN IN AUTOMATIC POSITION.

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

Models 5-S-201, 5-S-218, 5-S-220, 5-S-228, 5-S-237, 5-S-250, 5-S-252
(5521 Chassis)

220

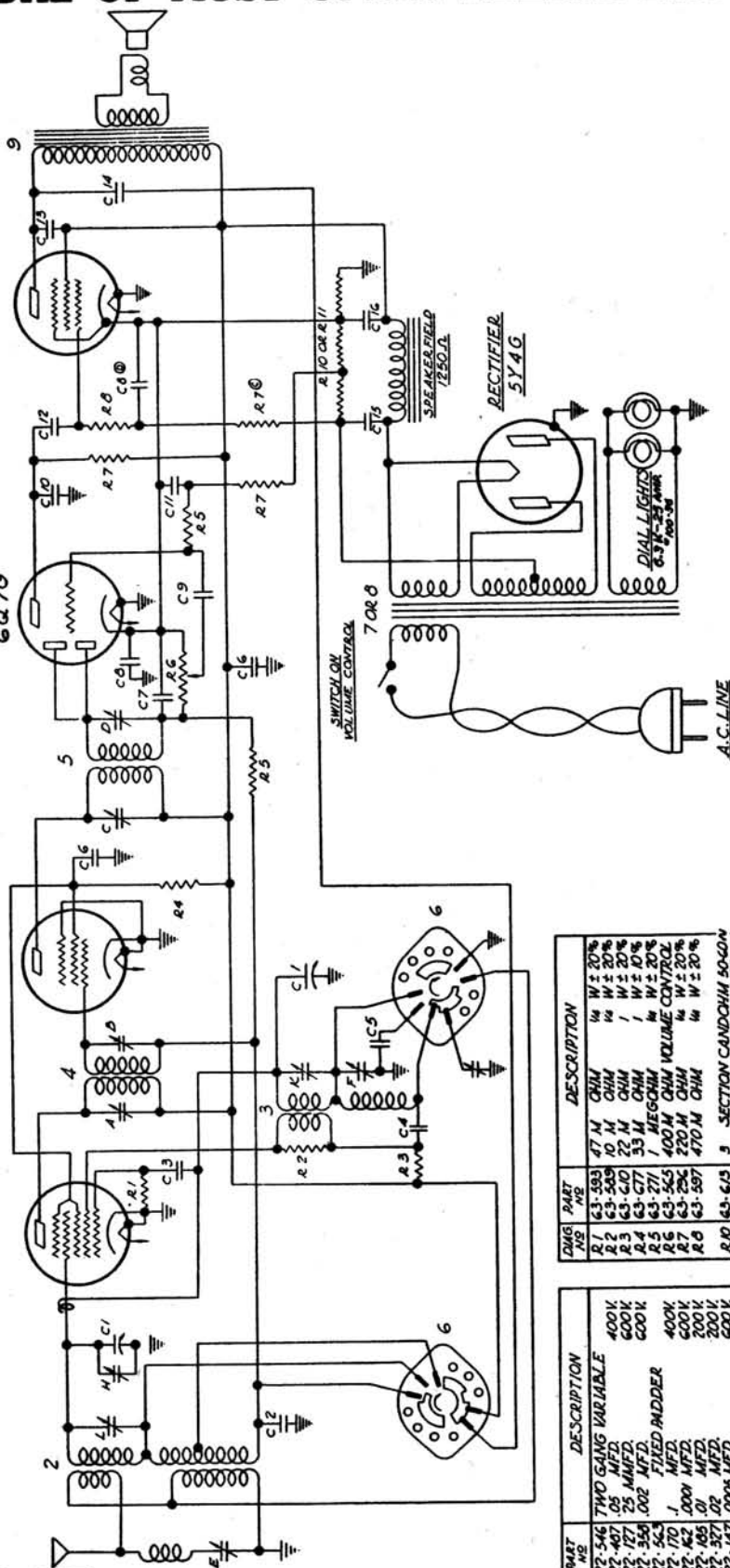
COMPILED BY M. N. BEITMAN, SUPREME PUBLICATIONS

1ST DET. OSC.
6A8G

I.F.
6K7G

2ND DET.-A.V.C.
1ST AUDIO
6Q7G

POWER
6F6G



I.F.-FREQUENCY 456K.C.
5TUBE SUPERHETERODYNE
2 BAND
CHASSIS NO 5521
ZENITH RADIO CORP.

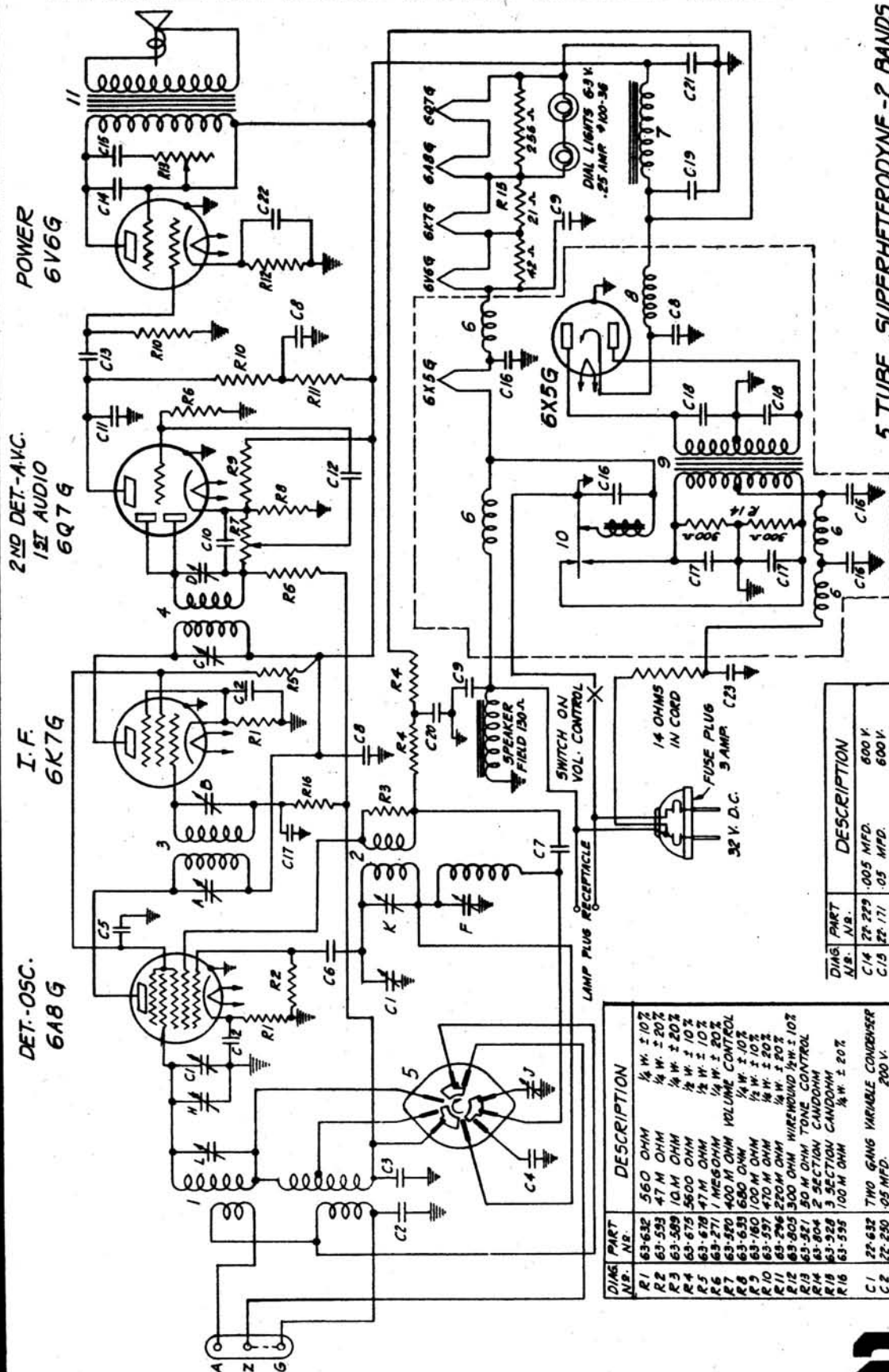
MODEL	SPEAKER
5-S-218	49-178 5"
5-S-220	49-178 5"
5-S-228	49-178 5"
5-S-237	49-178 5"
5-S-250	49-178 5"
5-S-252	49-208 10"

DIAG. NO.	PART NO.	DESCRIPTION
R1	47 M	OHM 1/4 W ± 20%
R2	63-503	10 M OHM 1/4 W ± 20%
R3	63-510	50 M OHM 1/4 W ± 20%
R4	63-577	33 M OHM 1/4 W ± 20%
R5	63-577	33 M OHM 1/4 W ± 20%
R6	63-563	100 M OHM 1/4 W ± 20%
R7	63-584	220 M OHM 1/4 W ± 20%
R8	63-587	470 M OHM 1/4 W ± 20%
R10	63-613	3 SECTION CANDOHM 50-00N
R11	63-806	3 SECTION CANDOHM 25 N
1		WAVE TRAP COIL MOUNTED ON ANTENNA COIL ASSEMBLY
2	3-4934	ANT COIL & SHIELD ASSEMBLY
3	3-4935	OSCILLATOR COIL ASSEMBLY
4	95-407	1ST I.F. TRANSFORMER
5	95-408	2ND I.F. TRANSFORMER
6	65-104	BAND SELECTOR SWITCH
7	95-406	POWER TRANSFORMER
8	95-452	117 VOLT 50-00 CYCLE POWER TRANSFORMER
9		ALL VOLTAGE 25 CYCLE SPEAKER TRANSFORMER

DIAG. NO.	PART NO.	DESCRIPTION
C1	22-546	TWO GANG VARIABLE 400V
C2	22-407	.05 MFD. 400V
C3	22-127	25 MMFD. 600V
C4	22-350	.002 MFD.
C5	22-563	FIXED PADDER
C6	22-170	.1 MFD.
C7	22-162	.0001 MFD.
C8	22-165	.01 MFD.
C9	22-377	.02 MFD.
C10	22-147	.0008 MFD.
C11	22-150	.1 MFD.
C12	22-451	.02 MFD.
C13	22-452	.002 MFD.
C14	22-171	.05 MFD.
C15	22-586	8 MFD 450V ELECTROLYTE 450V
C16		14 MFD 450V ELECTROLYTE 450V
A		VARIABLE TRIMMERS
B		1ST I.F. TRANS. PRIMARY
C		1ST I.F. TRANS. SECONDARY
D		2ND I.F. TRANS. PRIMARY
E		2ND I.F. TRANS. SECONDARY
F		BROADCAST OSCILLATOR (SEE NOTE)
G		22-570 WAVE TRAP
H		ANTENNA BROADCAST (ON GANG)
J		22-519 BROADCAST PADDER
K		SHORT WAVE OSCILLATOR (SEE NOTE)
L		SHORT WAVE DETECTOR

TRIMMERS F & K MOUNTED ON DAKELITE STRIP #22-468

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



5 TUBE SUPERHETERODYNE - 2 BANDS

I.F. FREQUENCY - 456 K.C.

32V. D.C. CHASSIS N2-5523

ZENITH RADIO CORPORATION

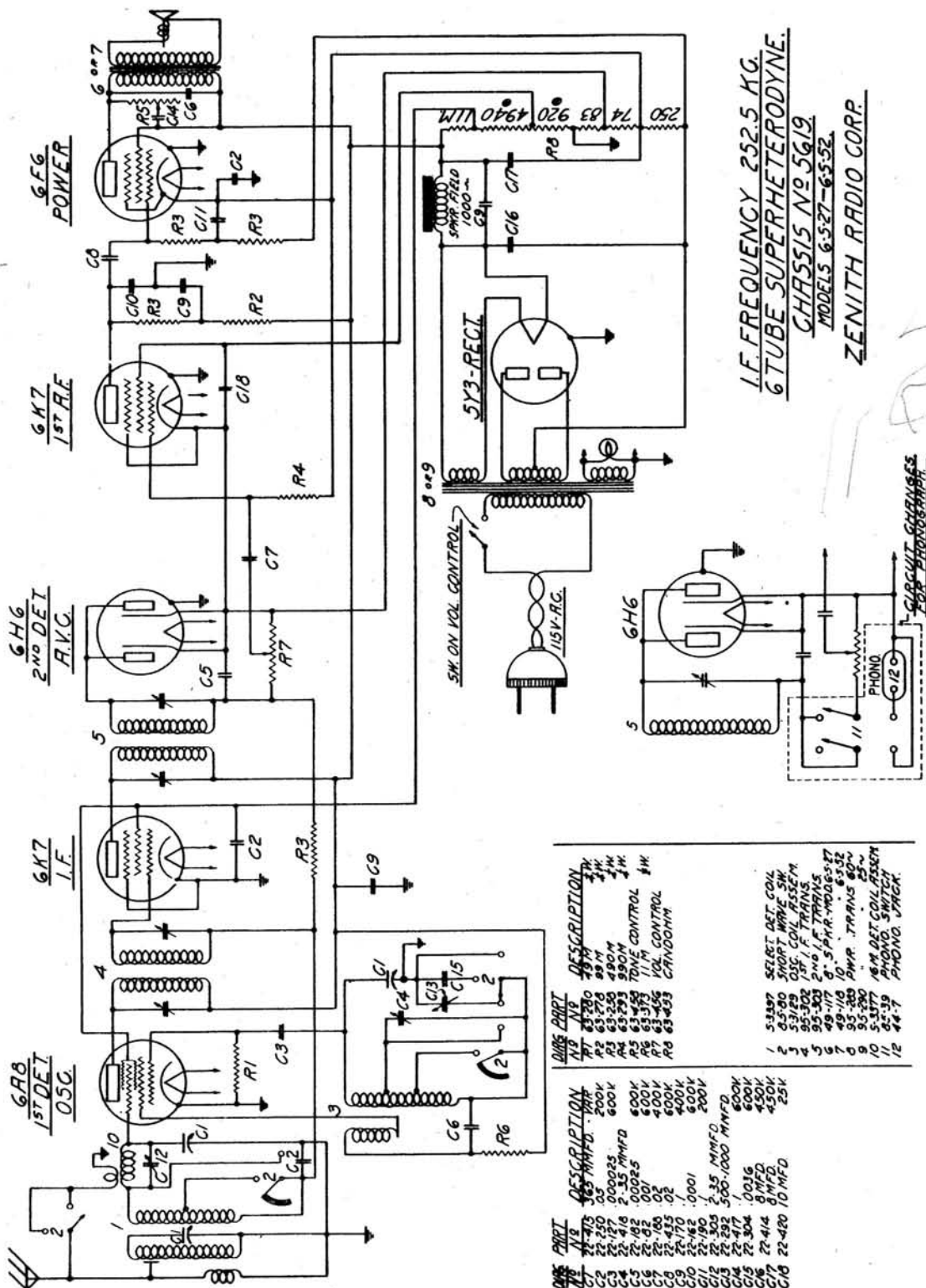
DIAG. PART NO.	DESCRIPTION
C14	22-229 .005 MFD. 600 V.
C15	22-171 .05 MFD. 600 V.
C16	22-159 .5 MFD. 200 V.
C17	22-185 .01 MFD. 1000 V.
C18	22-646 .1 MFD. 1000 V.
C19	22-647 .005 MFD. DRY ELECT. 450 V.
C20	22-648 .005 MFD. DRY ELECT. 450 V.
C21	22-649 .01 MFD. DRY ELECT. 450 V.
C22	22-243 .01 MFD. 400 V.
C23	22-243 .01 MFD. 400 V.

DIAG. PART NO.	DESCRIPTION
R1	63-632 560 OHM 1/4 W. ± 10%
R2	63-553 47 M OHM 1/4 W. ± 20%
R3	63-559 10 M OHM 1/4 W. ± 20%
R4	63-675 5600 OHM 1/4 W. ± 10%
R5	63-678 47 M OHM 1/4 W. ± 10%
R6	63-271 1 MEG OHM 1/4 W. ± 20%
R7	63-670 400 M OHM 1/4 W. ± 10%
R8	63-553 560 OHM 1/4 W. ± 10%
R9	63-553 560 OHM 1/4 W. ± 10%
R10	63-553 560 OHM 1/4 W. ± 10%
R11	63-553 560 OHM 1/4 W. ± 10%
R12	63-553 560 OHM 1/4 W. ± 10%
R13	63-553 560 OHM 1/4 W. ± 10%
R14	63-553 560 OHM 1/4 W. ± 10%
R15	63-553 560 OHM 1/4 W. ± 10%
R16	63-553 560 OHM 1/4 W. ± 10%
C1	22-632 TWO GANG VARIABLE CONDENSER
C2	22-250 .05 MFD. 200 V.
C3	22-487 .05 MFD. 400 V.
C4	22-563 .05 MFD. 400 V.
C5	22-212 .05 MFD. 400 V.
C6	22-127 25 MFD. 400 V.
C7	22-358 .002 MFD. 600 V.
C8	22-170 .1 MFD. 600 V.
C9	22-350 .25 MFD. 200 V.
C10	22-162 .0001 MFD. 600 V.
C11	22-147 .0005 MFD. 600 V.
C12	22-357 .02 MFD. 200 V.
C13	22-435 .02 MFD. 600 V.

COMPILED BY M. N. BEITMAN, SUPREME PUBLICATIONS

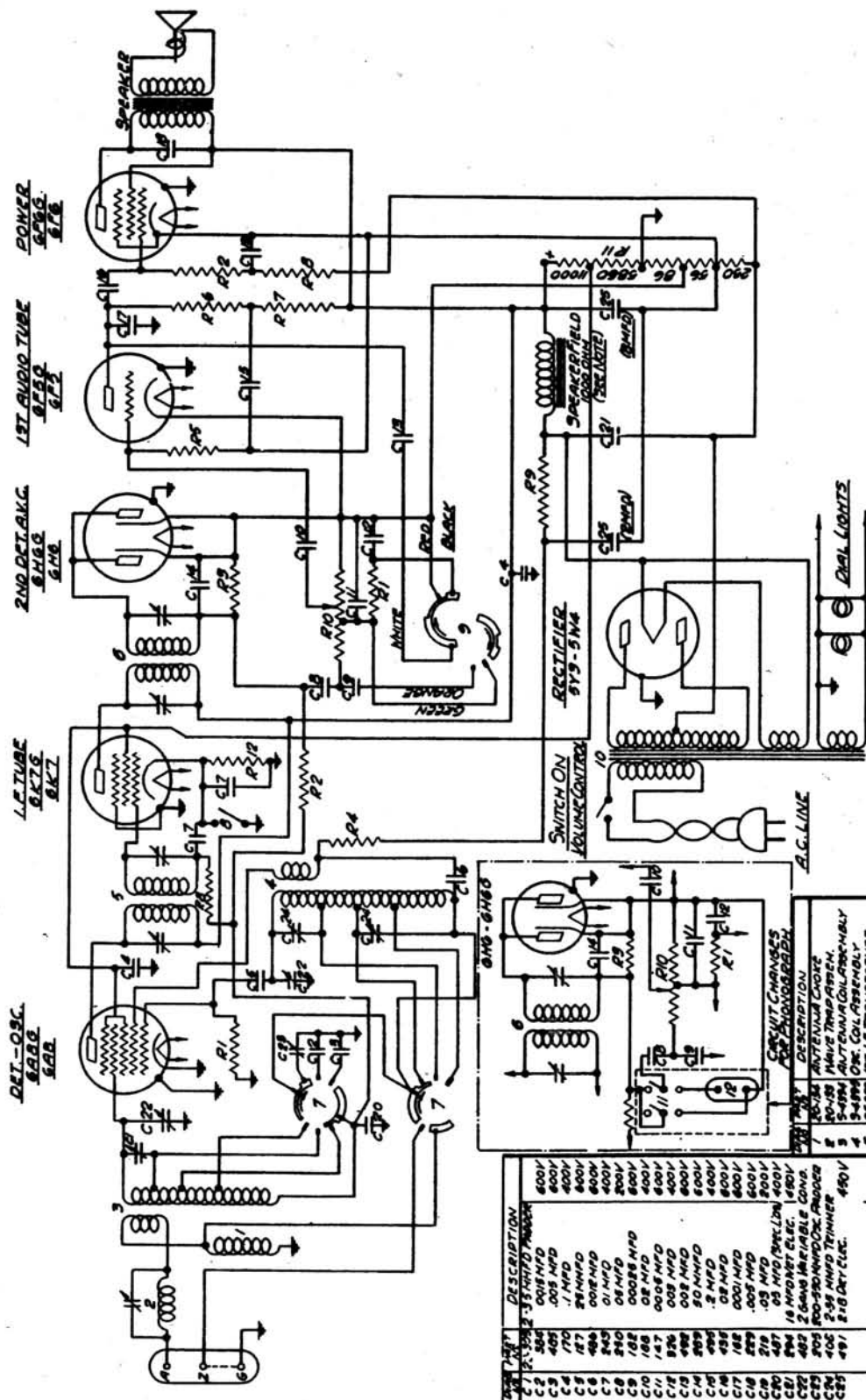
221

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

Models 6-S-128, 6-S-137, 6-S-147, 6-S-152, 6-S-157. (Chassis No. 5634)



IF FREQUENCY 456 KC.
6TUBE SUPERHETERODYNE-3 BAND
CHASSIS NO 5634

ZENITH RADIO CORPORATION
CHICAGO, ILLINOIS

SPEAKERS	MODELS
49-117-8"	6S-128
49-117-10"	6S-137
49-118-10"	6S-147
49-118-10"	6S-152
49-118-10"	6S-157

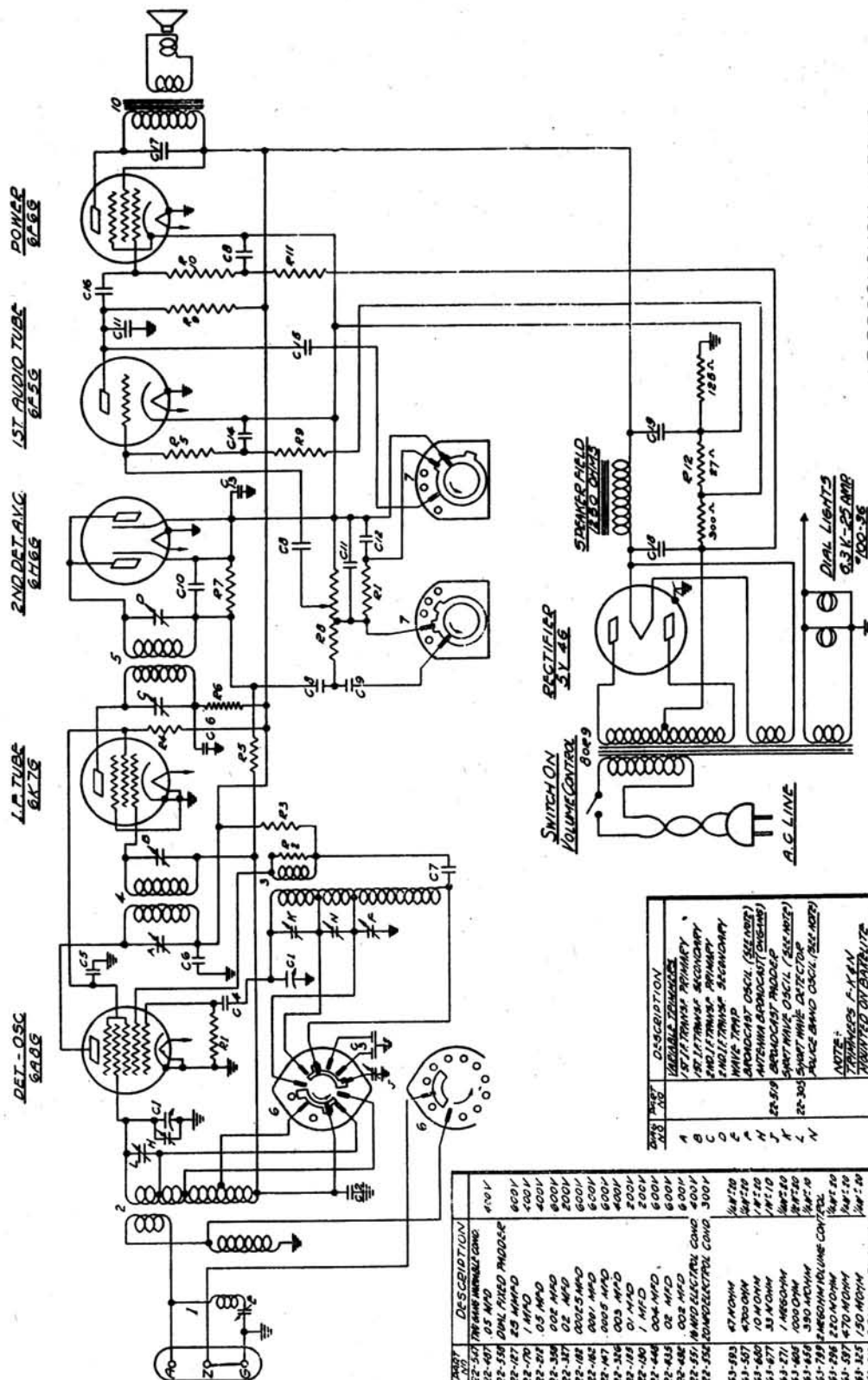
COMPONENT	DESCRIPTION	VALUE	COMPONENT	DESCRIPTION	VALUE
R1	600V	100K	R10	600V	100K
R2	600V	100K	R11	600V	100K
R3	600V	100K	R12	600V	100K
R4	600V	100K	R13	600V	100K
R5	600V	100K	R14	600V	100K
R6	600V	100K	R15	600V	100K
R7	600V	100K	R16	600V	100K
R8	600V	100K	R17	600V	100K
R9	600V	100K	R18	600V	100K
R10	600V	100K	R19	600V	100K
R20	600V	100K	R21	600V	100K
R21	600V	100K	R22	600V	100K
R22	600V	100K	R23	600V	100K
R23	600V	100K	R24	600V	100K
R24	600V	100K	R25	600V	100K
R25	600V	100K	R26	600V	100K
R26	600V	100K	R27	600V	100K
R27	600V	100K	R28	600V	100K
R28	600V	100K	R29	600V	100K
R29	600V	100K	R30	600V	100K
R30	600V	100K	R31	600V	100K
R31	600V	100K	R32	600V	100K
R32	600V	100K	R33	600V	100K
R33	600V	100K	R34	600V	100K
R34	600V	100K	R35	600V	100K
R35	600V	100K	R36	600V	100K
R36	600V	100K	R37	600V	100K
R37	600V	100K	R38	600V	100K
R38	600V	100K	R39	600V	100K
R39	600V	100K	R40	600V	100K
R40	600V	100K	R41	600V	100K
R41	600V	100K	R42	600V	100K
R42	600V	100K	R43	600V	100K
R43	600V	100K	R44	600V	100K
R44	600V	100K	R45	600V	100K
R45	600V	100K	R46	600V	100K
R46	600V	100K	R47	600V	100K
R47	600V	100K	R48	600V	100K
R48	600V	100K	R49	600V	100K
R49	600V	100K	R50	600V	100K
R50	600V	100K	R51	600V	100K
R51	600V	100K	R52	600V	100K
R52	600V	100K	R53	600V	100K
R53	600V	100K	R54	600V	100K
R54	600V	100K	R55	600V	100K
R55	600V	100K	R56	600V	100K
R56	600V	100K	R57	600V	100K
R57	600V	100K	R58	600V	100K
R58	600V	100K	R59	600V	100K
R59	600V	100K	R60	600V	100K
R60	600V	100K	R61	600V	100K
R61	600V	100K	R62	600V	100K
R62	600V	100K	R63	600V	100K
R63	600V	100K	R64	600V	100K
R64	600V	100K	R65	600V	100K
R65	600V	100K	R66	600V	100K
R66	600V	100K	R67	600V	100K
R67	600V	100K	R68	600V	100K
R68	600V	100K	R69	600V	100K
R69	600V	100K	R70	600V	100K
R70	600V	100K	R71	600V	100K
R71	600V	100K	R72	600V	100K
R72	600V	100K	R73	600V	100K
R73	600V	100K	R74	600V	100K
R74	600V	100K	R75	600V	100K
R75	600V	100K	R76	600V	100K
R76	600V	100K	R77	600V	100K
R77	600V	100K	R78	600V	100K
R78	600V	100K	R79	600V	100K
R79	600V	100K	R80	600V	100K
R80	600V	100K	R81	600V	100K
R81	600V	100K	R82	600V	100K
R82	600V	100K	R83	600V	100K
R83	600V	100K	R84	600V	100K
R84	600V	100K	R85	600V	100K
R85	600V	100K	R86	600V	100K
R86	600V	100K	R87	600V	100K
R87	600V	100K	R88	600V	100K
R88	600V	100K	R89	600V	100K
R89	600V	100K	R90	600V	100K
R90	600V	100K	R91	600V	100K
R91	600V	100K	R92	600V	100K
R92	600V	100K	R93	600V	100K
R93	600V	100K	R94	600V	100K
R94	600V	100K	R95	600V	100K
R95	600V	100K	R96	600V	100K
R96	600V	100K	R97	600V	100K
R97	600V	100K	R98	600V	100K
R98	600V	100K	R99	600V	100K
R99	600V	100K	R100	600V	100K

Models 6-S-203, 6-S-222, 6-S-223, 6-S-229, 6-S-239, 6-S-241 (5638 Chassis)

ZENITH RADIO CORPORATION[illegible]

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

Models 6-S-254, 6-S-256 (5644 Chassis)



I.F. FREQUENCY 456 KC
6 TUBE SUPERHETERODYNE - 3 BAND
CHASSIS NO 5644

ZENITH RADIO CORPORATION

SPEAKERS MODELS
49-208-10 6-S-254
49-181-10 6-S-256

COMPONENT	DESCRIPTION
1	6AK5 DET-OSC
2	6AV6 2ND DET-AVC
3	6F56 1ST AUDIO TUBE
4	6F56 POWER
5	3V 45 RECTIFIER
6	6.3V-25W DIAL LIGHTS
7	456 KC I.F. TRANSFORMER
8	456 KC I.F. TRANSFORMER
9	456 KC I.F. TRANSFORMER
10	456 KC I.F. TRANSFORMER
11	456 KC I.F. TRANSFORMER
12	456 KC I.F. TRANSFORMER
13	456 KC I.F. TRANSFORMER
14	456 KC I.F. TRANSFORMER
15	456 KC I.F. TRANSFORMER
16	456 KC I.F. TRANSFORMER
17	456 KC I.F. TRANSFORMER
18	456 KC I.F. TRANSFORMER
19	456 KC I.F. TRANSFORMER

COMPONENT	DESCRIPTION
1	6AK5 DET-OSC
2	6AV6 2ND DET-AVC
3	6F56 1ST AUDIO TUBE
4	6F56 POWER
5	3V 45 RECTIFIER
6	6.3V-25W DIAL LIGHTS
7	456 KC I.F. TRANSFORMER
8	456 KC I.F. TRANSFORMER
9	456 KC I.F. TRANSFORMER
10	456 KC I.F. TRANSFORMER
11	456 KC I.F. TRANSFORMER
12	456 KC I.F. TRANSFORMER
13	456 KC I.F. TRANSFORMER
14	456 KC I.F. TRANSFORMER
15	456 KC I.F. TRANSFORMER
16	456 KC I.F. TRANSFORMER
17	456 KC I.F. TRANSFORMER
18	456 KC I.F. TRANSFORMER
19	456 KC I.F. TRANSFORMER

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

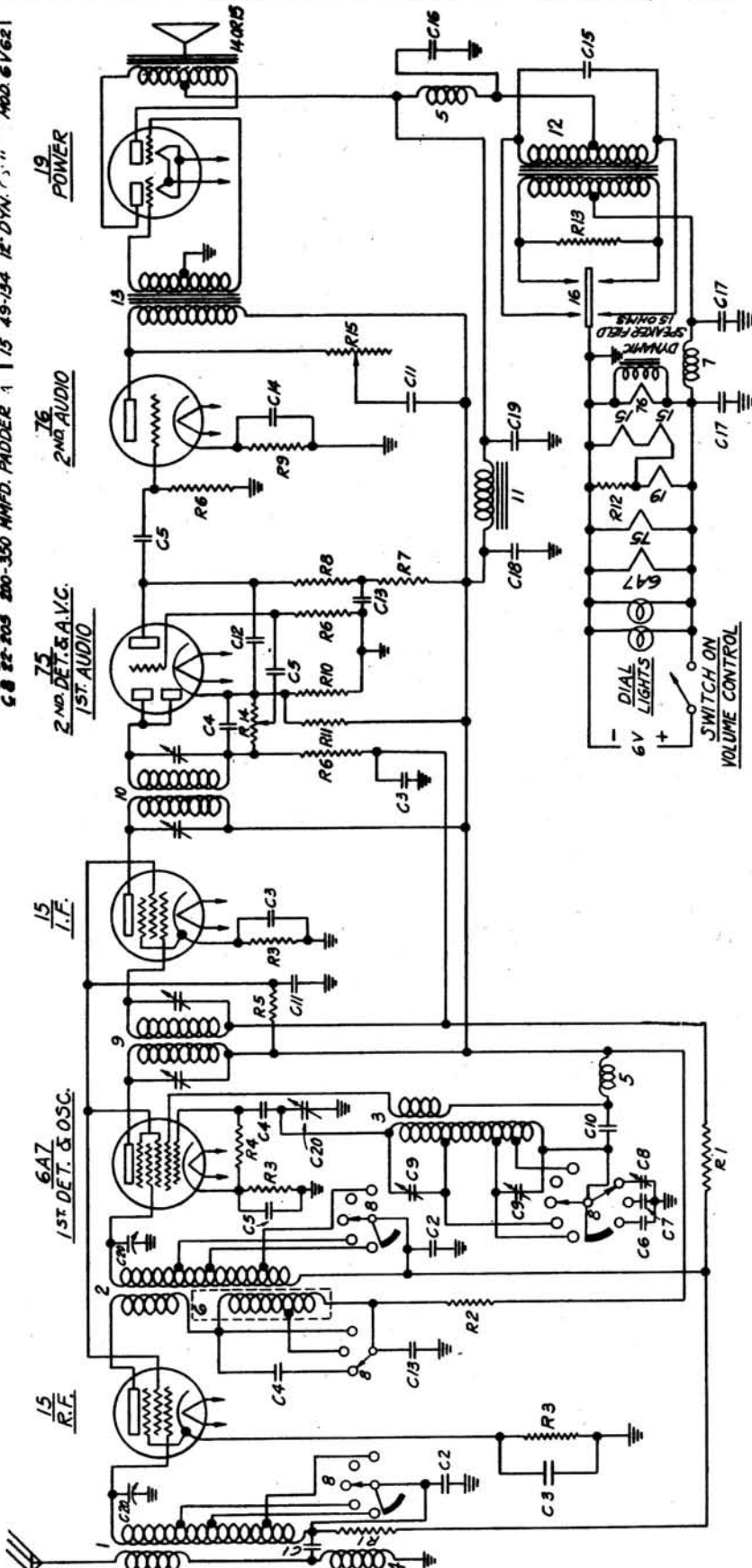
DIAL NUMBER	DESCRIPTION	PART NUMBER	DESCRIPTION
R1 63-278	93 M	C9 22-408	2-35 MMFD. PADDER
R2 63-361	5 M	C10 22-82	.001 MFD.
R3 63-362	400	C11 22-212	.05
R4 63-280	49 M	C12 22-182	.00025
R5 63-353	19 M	C13 22-224	.1
R6 63-293	990 M	C14 22-224	.1
R7 63-290	260 M	C15 22-437	.01
R8 63-258	490 M	C16 22-228	.5
R9 63-272	1 M	C17 22-251	.5
R10 63-238	1 M	C18 22-432	.8
R11 63-477	100 M	C20 22-409	456 MMF. VAR. COND.
R12 63-477	100	L 5-3697	ANT. COIL ASSEM.
R13 63-394	200	L 5-3698	DET. COIL ASSEM.
R14 63-456	200 M	L 5-3699	OSC. COIL ASSEM.
R15 63-458	50 M	4	20-82 ANT. CHOKE
		5	20-88 ANT. CHOKE
		6	20-119 R.F. CHOKE
		7	32-78 R.F. CHOKE
		8	32-78 R.F. CHOKE
		9	32-78 R.F. CHOKE
		10	32-78 R.F. CHOKE
		11	32-78 R.F. CHOKE
		12	32-78 R.F. CHOKE
		13	32-78 R.F. CHOKE
		14	32-78 R.F. CHOKE
		15	32-78 R.F. CHOKE
		16	32-78 R.F. CHOKE
		17	32-78 R.F. CHOKE
		18	32-78 R.F. CHOKE
		19	32-78 R.F. CHOKE
		20	32-78 R.F. CHOKE
		21	32-78 R.F. CHOKE
		22	32-78 R.F. CHOKE
		23	32-78 R.F. CHOKE
		24	32-78 R.F. CHOKE
		25	32-78 R.F. CHOKE
		26	32-78 R.F. CHOKE
		27	32-78 R.F. CHOKE
		28	32-78 R.F. CHOKE
		29	32-78 R.F. CHOKE
		30	32-78 R.F. CHOKE
		31	32-78 R.F. CHOKE
		32	32-78 R.F. CHOKE
		33	32-78 R.F. CHOKE
		34	32-78 R.F. CHOKE
		35	32-78 R.F. CHOKE
		36	32-78 R.F. CHOKE
		37	32-78 R.F. CHOKE
		38	32-78 R.F. CHOKE
		39	32-78 R.F. CHOKE
		40	32-78 R.F. CHOKE
		41	32-78 R.F. CHOKE
		42	32-78 R.F. CHOKE
		43	32-78 R.F. CHOKE
		44	32-78 R.F. CHOKE
		45	32-78 R.F. CHOKE
		46	32-78 R.F. CHOKE
		47	32-78 R.F. CHOKE
		48	32-78 R.F. CHOKE
		49	32-78 R.F. CHOKE
		50	32-78 R.F. CHOKE

550 KC. - 1780 KC.
2100 KC. - 6800 KC.
3 BAND
7000 KC. - 23000 KC.

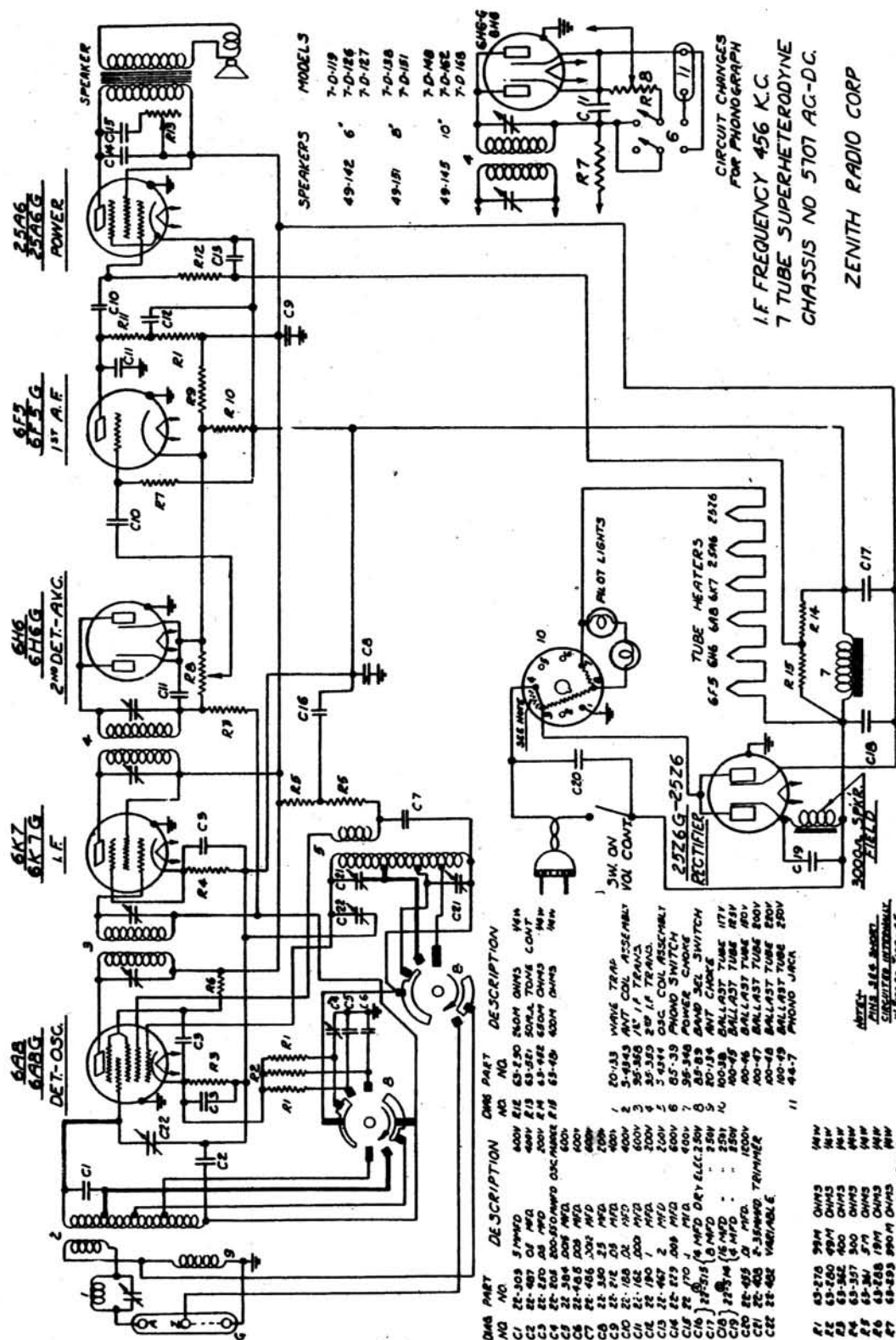
I.F. FREQUENCY 456 KC.
6 TUBE BATTERY SUPERHETERODYNE
CHASSIS N8 5621

ZENITH RADIO CORP.

MODELS-6V27, 6V62



CIRCUIT DIAGRAM—Models 7-D-119, 7-D-126, 7-D-127, 7-D-138, 7-D-151, 7-D-148, 7-D-162, 7-D-168. (Chassis No. 5707)



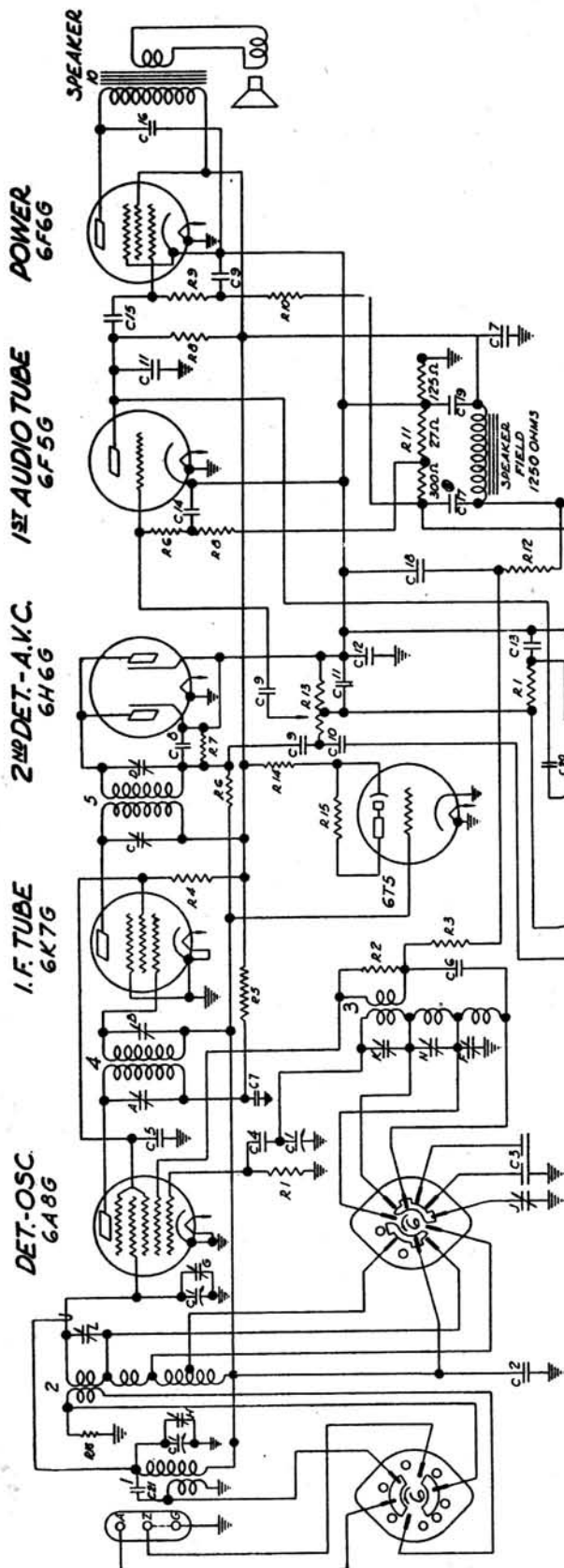
ZENITH RADIO CORP

CIRCUIT CHANGES
FOR PHONOGRAPH

I.F. FREQUENCY 456 K.C.
7 TUBE SUPERHETERODYNE
CHASSIS NO 5707 AC-DC.

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

Models 7-S-204, 7-S-232, 7-S-240, 7-S-242, 7-S-258, 7-S-260, 7-S-261 (5709 Chassis)



I.F. FREQUENCY 456 K.C.

7 TUBE SUPERHETERODYNE

3 BAND

CHASSIS NO. 5709

ZENITH RADIO CORP.

COMP. PART NO.	DESCRIPTION
C1 22-540	10 MFD. CERAMIC
C2 63-585	1000 OHMS 1/4 W ± 20%

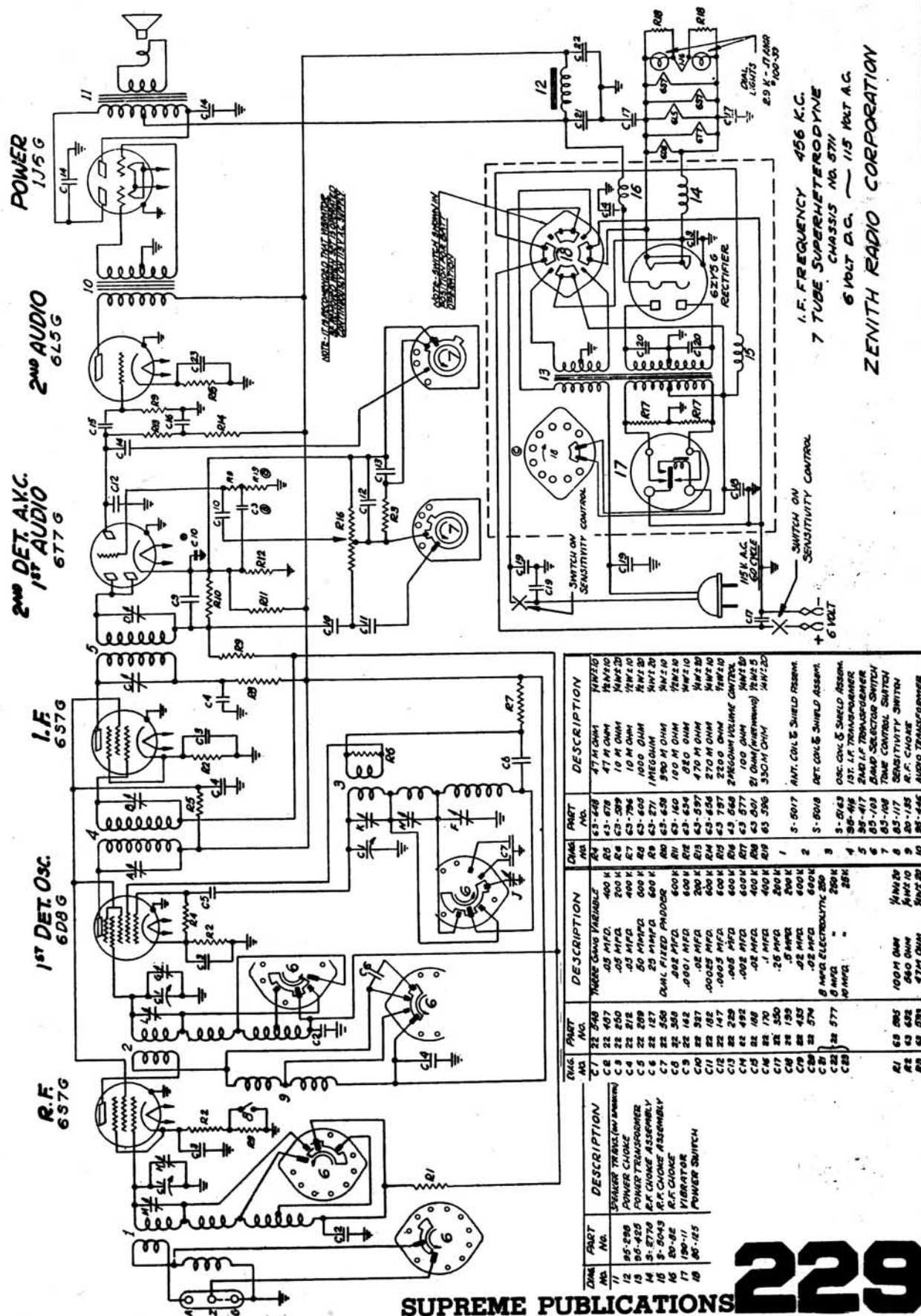
SPEAKERS	MODELS
49-203	8' 7-3-232
49-204	8' 7-3-240
49-205	8' 7-3-242
49-191	10' 7-3-250
49-195	12' 7-3-260
49-193	12' 7-3-261

DIAG. PART NO.	DESCRIPTION
R1 63-593	47M OHMS 1/4 W ± 20%
R2 63-597	4700 OHMS 1/4 W ± 20%
R3 63-680	10M OHMS 1/4 W ± 20%
R4 63-677	33M OHMS 1/4 W ± 20%
R5 63-605	1000 OHMS 1/4 W ± 20%
R6 63-271	1M OHMS 1/4 W ± 20%
R7 63-654	590M OHMS 1/4 W ± 20%
R8 63-294	220M OHMS 1/4 W ± 20%
R9 63-323	150M OHMS 1/4 W ± 20%
R10 63-323	150M OHMS 1/4 W ± 20%
R11 63-673	5 SEC. COILS
R12 63-605	1000 OHMS 1/4 W ± 20%
R13 63-609	1000 OHMS 1/4 W ± 20%
R14	1M OHMS 1/4 W ± 20%
R15	1M OHMS 1/4 W ± 20%

DIAG. PART NO.	DESCRIPTION
A	1ST I.F. TRANS. PRIMARY
B	1ST I.F. TRANS. SECONDARY
C	2ND I.F. TRANS. PRIMARY
D	2ND I.F. TRANS. SECONDARY
E	AROMATIC OSCILLATOR (SEE NOTE)
F	DETECTOR BROADCAST (ON GANG)
G	ANTENNA BROADCAST (ON GANG)
H	22-519 BROADCAST BARRIER
I	SHORT WAVE OSCILLATOR (SEE NOTE)
J	SHORT WAVE DETECTOR (SEE NOTE)
K	POLICE BAND OSCILLATOR (SEE NOTE)
L	POLICE BAND DETECTOR (SEE NOTE)
N	NOTE: TRIMMERS F, K, L, & N MOUNTED ON BACKLITE STRIP #22-545

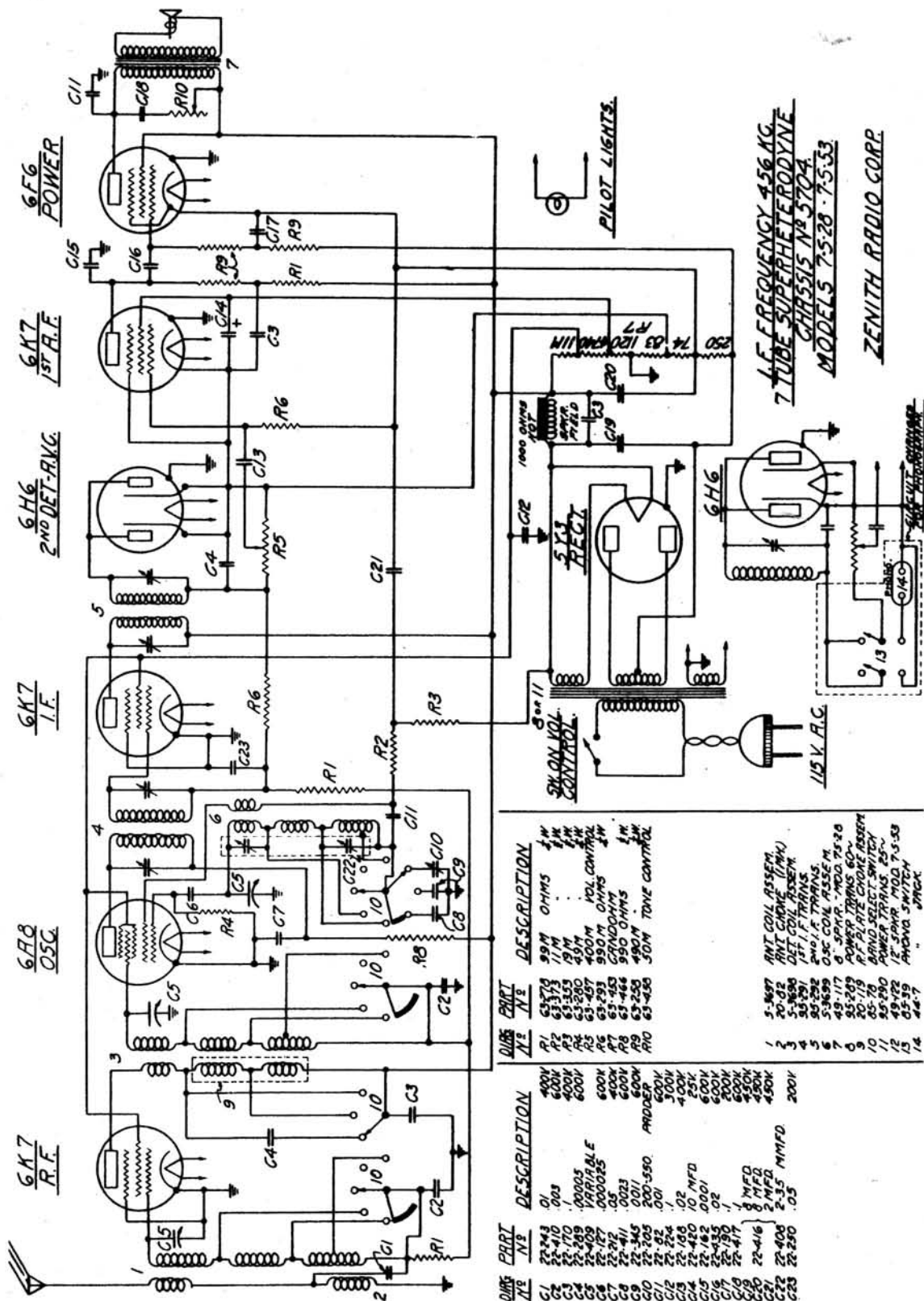
DIAG. PART NO.	DESCRIPTION
C1 22-540	THREE GANG VARIABLE
C2 22-487	.05 MFD. 400V
C3 22-554	DUAL FIXED BARRIER
C4 22-170	.1 MFD. 400V
C5 22-170	.1 MFD. 400V
C6 22-354	.002 MFD. 400V
C7 22-212	.05 MFD. 400V
C8 22-162	.001 MFD. 400V
C9 22-327	.02 MFD. 200V
C10 22-162	.00025 MFD. 400V
C11 22-147	.0005 MFD. 400V
C12 22-165	.01 MFD. 400V
C13 22-354	.002 MFD. 400V
C14 22-150	.01 MFD. 400V
C15 22-453	.02 MFD. 400V
C16 22-584	14 MFD. ELECTROLYTIC 450V
C17 22-540	.05 MFD. 450V
C18 22-448	.01 MFD. 450V
C19 22-448	.01 MFD. 450V
C20 22-448	.01 MFD. 450V
2	ANTENNA COIL ASSEMBLY
3	DETECTOR COIL & SHIELD ASSEMBLY
4	OSCILLATOR COIL & SHIELD ASSEMBLY
5	1ST I.F. TRANS.
6	2ND I.F. TRANS.
7	BAND SELECTOR SWITCH
8	POWER TRANS. SWITCH
9	POWER TRANS. SWITCH
10	POWER TRANS. SWITCH

Models 7-J-232, 7-J-259 (5711 Chassis)

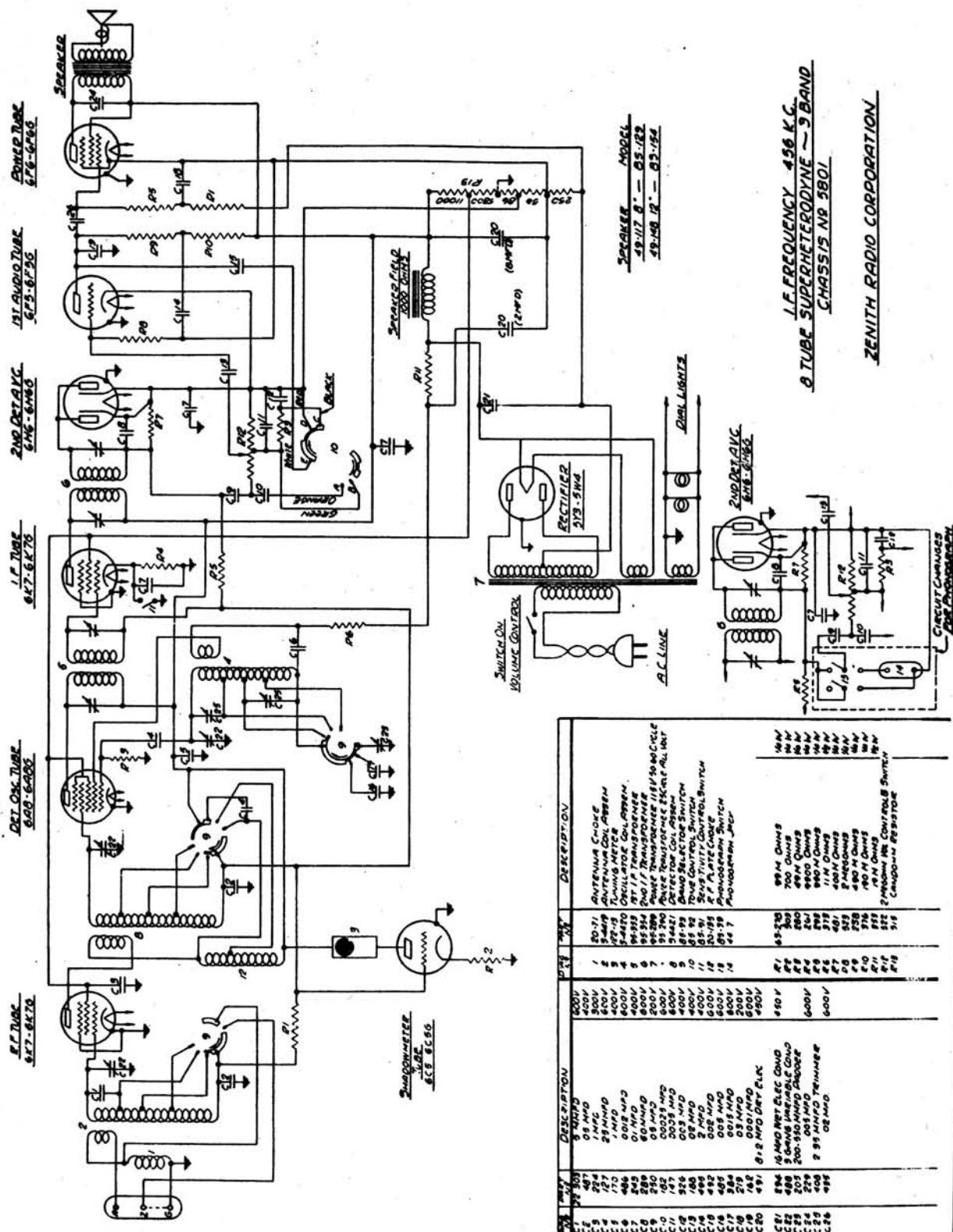


I.F. FREQUENCY 456 K.C.
7 TUBE SUPERHETERODYNE
CHASSIS NO. 5711
6 VOLT D.C. — 115 VOLT A.C.
ZENITH RADIO CORPORATION

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

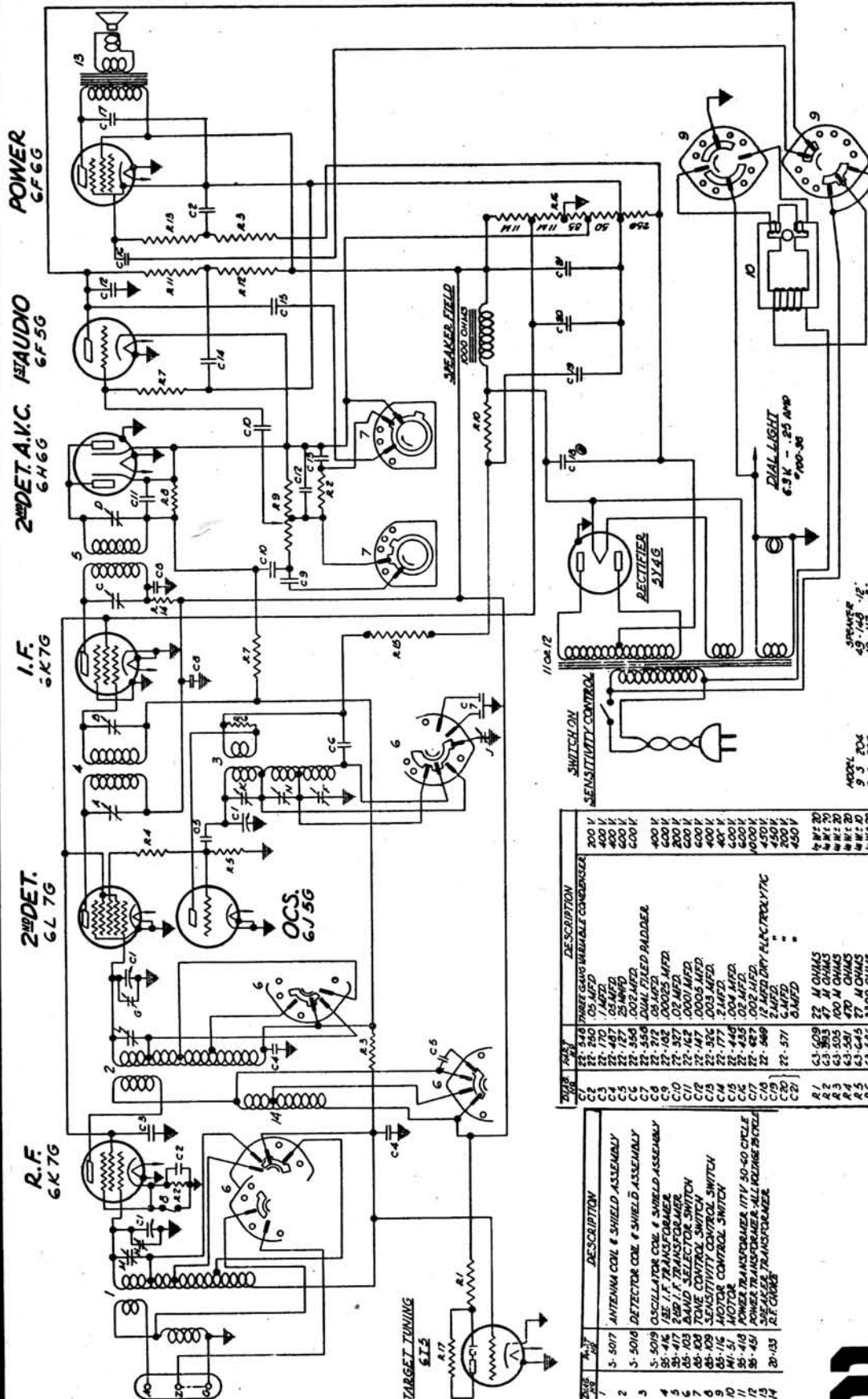


Models 8-S-129, 8-S-154. (Chassis No. 5801)



QTY	UNIT	DESCRIPTION	QTY	UNIT	DESCRIPTION
22	PCB	1000V	1	PCB	2071
23	PCB	400V	2	PCB	5449
24	PCB	100V	3	PCB	5449
25	PCB	100V	4	PCB	5449
26	PCB	100V	5	PCB	5449
27	PCB	100V	6	PCB	5449
28	PCB	100V	7	PCB	5449
29	PCB	100V	8	PCB	5449
30	PCB	100V	9	PCB	5449
31	PCB	100V	10	PCB	5449
32	PCB	100V	11	PCB	5449
33	PCB	100V	12	PCB	5449
34	PCB	100V	13	PCB	5449
35	PCB	100V	14	PCB	5449
36	PCB	100V	15	PCB	5449
37	PCB	100V	16	PCB	5449
38	PCB	100V	17	PCB	5449
39	PCB	100V	18	PCB	5449
40	PCB	100V	19	PCB	5449
41	PCB	100V	20	PCB	5449
42	PCB	100V	21	PCB	5449
43	PCB	100V	22	PCB	5449
44	PCB	100V	23	PCB	5449
45	PCB	100V	24	PCB	5449
46	PCB	100V	25	PCB	5449
47	PCB	100V	26	PCB	5449
48	PCB	100V	27	PCB	5449
49	PCB	100V	28	PCB	5449
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52	PCB	100V	31	PCB	5449
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64	PCB	100V	43	PCB	5449
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120	PCB	100V	99	PCB	5449
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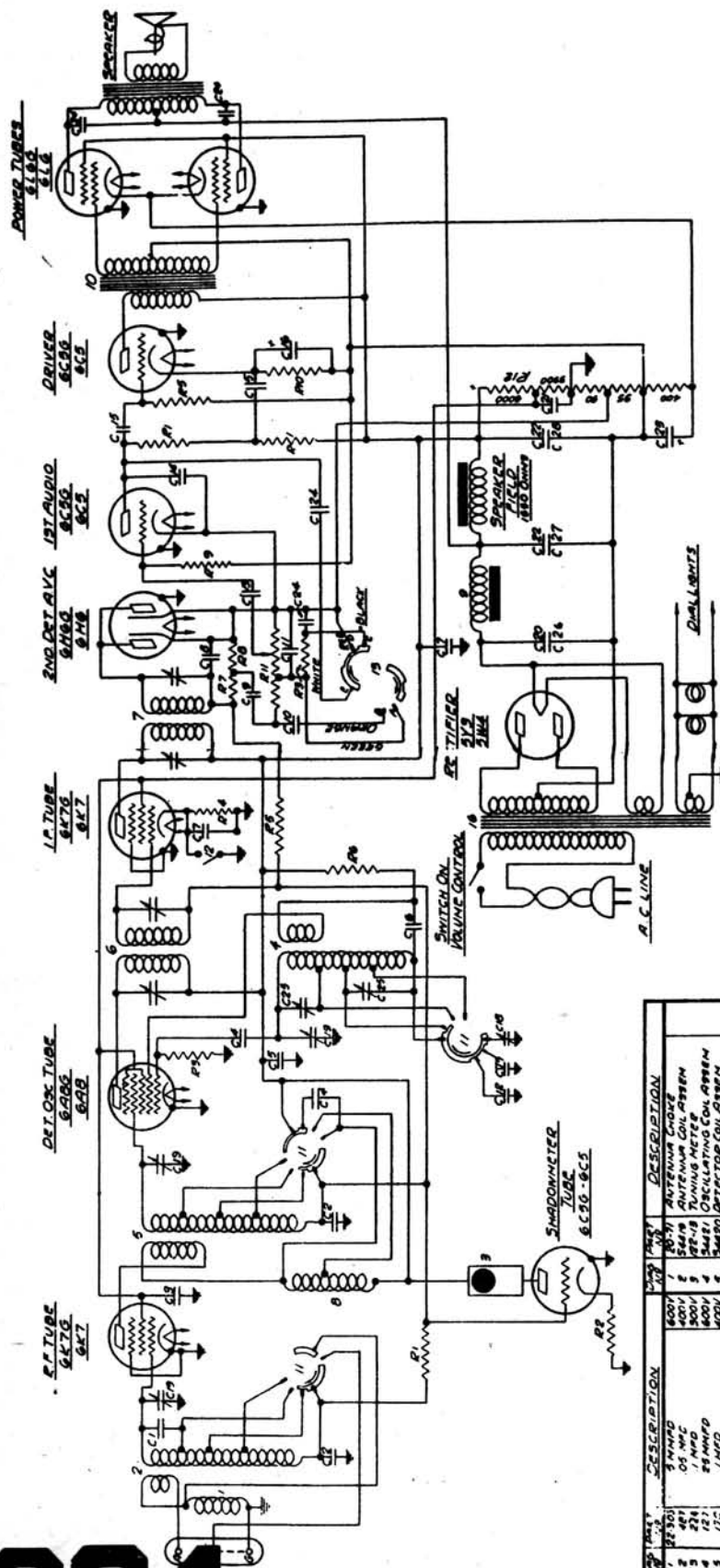
MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



I.F.-FREQUENCY 456K.C.
9TUBE SUPERHETERODYNE
3BAND
CHASSIS NO 5905

NO.	QTY	UNIT	DESCRIPTION	NO.	QTY	UNIT	DESCRIPTION
1	1	PCB	ANTENNA COIL & SHIELD ASSEMBLY	21	1	PCB	5 SECTION CANONICAL
2	1	PCB	DETECTOR COIL & SHIELD ASSEMBLY	22	1	PCB	TRANSFORMER
3	1	PCB	OSCILLATOR COIL & SHIELD ASSEMBLY	23	1	PCB	TRANSFORMER
4	1	PCB	IF I.F. TRANSFORMER	24	1	PCB	TRANSFORMER
5	1	PCB	IF I.F. TRANSFORMER	25	1	PCB	TRANSFORMER
6	1	PCB	BAND SELECTOR SWITCH	26	1	PCB	TRANSFORMER
7	1	PCB	TONE CONTROL SWITCH	27	1	PCB	TRANSFORMER
8	1	PCB	SENSITIVITY CONTROL SWITCH	28	1	PCB	TRANSFORMER
9	1	PCB	MOTOR CONTROL SWITCH	29	1	PCB	TRANSFORMER
10	1	PCB	MOTOR	30	1	PCB	TRANSFORMER
11	1	PCB	POWER TRANSFORMER 117V 50-60 CYCLE	31	1	PCB	TRANSFORMER
12	1	PCB	POWER TRANSFORMER ALL RELAY IN CYCLE	32	1	PCB	TRANSFORMER
13	1	PCB	POWER TRANSFORMER	33	1	PCB	TRANSFORMER
14	1	PCB	R.F. COILS	34	1	PCB	TRANSFORMER
15	1	PCB	22 M OHMS	35	1	PCB	TRANSFORMER
16	1	PCB	22 M OHMS	36	1	PCB	TRANSFORMER
17	1	PCB	22 M OHMS	37	1	PCB	TRANSFORMER
18	1	PCB	22 M OHMS	38	1	PCB	TRANSFORMER
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152	1	PCB	22 M OHMS	172	1	PCB	TRANSFORMER
153	1	PCB	22 M OHMS	173	1	PCB	TRANSFORMER
154	1	PCB	22 M OHMS	174	1	PCB	TRANSFORMER
155	1	PCB	22 M OHMS	175	1	PCB	TRANSFORMER
156	1	PCB	22 M OHMS	176	1	PCB	TRANSFORMER
157	1	PCB	22 M OHMS	177	1	PCB	TRANSFORMER
158	1	PCB	22 M OHMS	178	1	PCB	TRANSFORMER
159	1	PCB	22 M OHMS	179	1	PCB	TRANSFORMER
160	1	PCB	22 M OHMS	180	1	PCB	TRANSFORMER
161	1	PCB	22 M OHMS	181	1	PCB	TRANSFORMER
162	1	PCB	22 M OHMS	182	1	PCB	TRANSFORMER
163	1	PCB	22 M OHMS	183	1	PCB	TRANSFORMER
164	1	PCB	22 M OHMS	184	1	PCB	TRANSFORMER
165	1	PCB	22 M OHMS	185	1	PCB	TRANSFORMER
166	1	PCB	22 M OHMS	186	1	PCB	TRANSFORMER
167	1	PCB	22 M OHMS	187	1	PCB	TRANSFORMER
168	1	PCB	22 M OHMS	188	1	PCB	TRANSFORMER
169	1	PCB	22 M OHMS	189	1	PCB	TRANSFORMER
170	1	PCB	22 M OHMS	190	1	PCB	TRANSFORMER
171	1	PCB	22 M OHMS	191	1	PCB	TRANSFORMER
172	1	PCB	22 M OHMS	192	1	PCB	TRANSFORMER
173	1	PCB	22 M OHMS	193	1	PCB	TRANSFORMER
174	1	PCB	22 M OHMS	194	1	PCB	TRANSFORMER
175	1	PCB	22 M OHMS	195	1	PCB	TRANSFORMER
176	1	PCB	22 M OHMS	196	1	PCB	TRANSFORMER
177	1	PCB	22 M OHMS	197	1	PCB	TRANSFORMER
178	1	PCB	22 M OHMS	198	1	PCB	TRANSFORMER
179	1	PCB	22 M OHMS	199	1	PCB	TRANSFORMER
180	1	PCB	22 M OHMS	200	1	PCB	TRANSFORMER
181	1	PCB	22 M OHMS	201	1	PCB	TRANSFORMER
182	1	PCB	22 M OHMS	202	1	PCB	TRANSFORMER
183	1	PCB	22 M OHMS	203	1	PCB	TRANSFORMER
184	1	PCB	22 M OHMS	204	1	PCB	TRANSFORMER
185	1	PCB	22 M OHMS	205	1	PCB	TRANSFORMER
186	1	PCB	22 M OHMS	206	1	PCB	TRANSFORMER
187	1	PCB	22 M OHMS	207	1	PCB	TRANSFORMER
188	1	PCB	22 M OHMS	208	1	PCB	TRANSFORMER
189	1	PCB	22 M OHMS	209	1	PCB	TRANSFORMER
190	1	PCB	22 M OHMS	210	1	PCB	

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



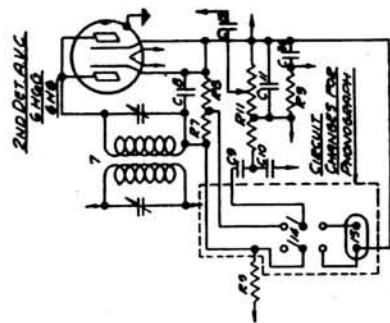
SPEAKER	MODEL
49-106	8" 1031190
49-147	12" 1031191 1031192
49-156	12" 1031193 1031194

(Chassis No. 1004)

I.F. FREQUENCY 456 KC.
10 TUBE SUPERHETERODYNE - 3 BAND
CHASSIS NO 1004

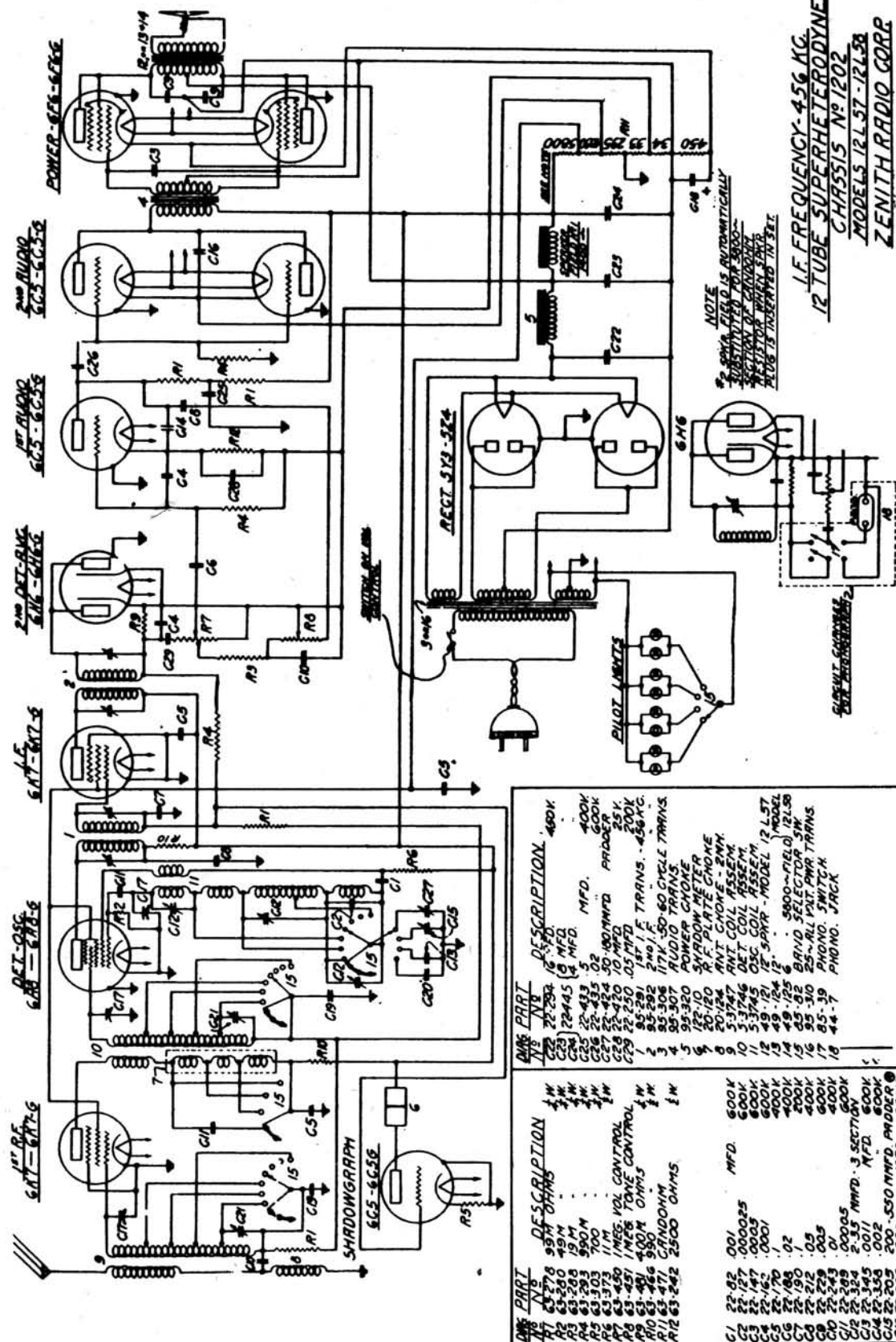
ZENITH RADIO CORPORATION

Models 10-S-30, 10-S-155, 10-S-156, 10-S-160, 10-S-147, 10-S-153, 10-S-157.



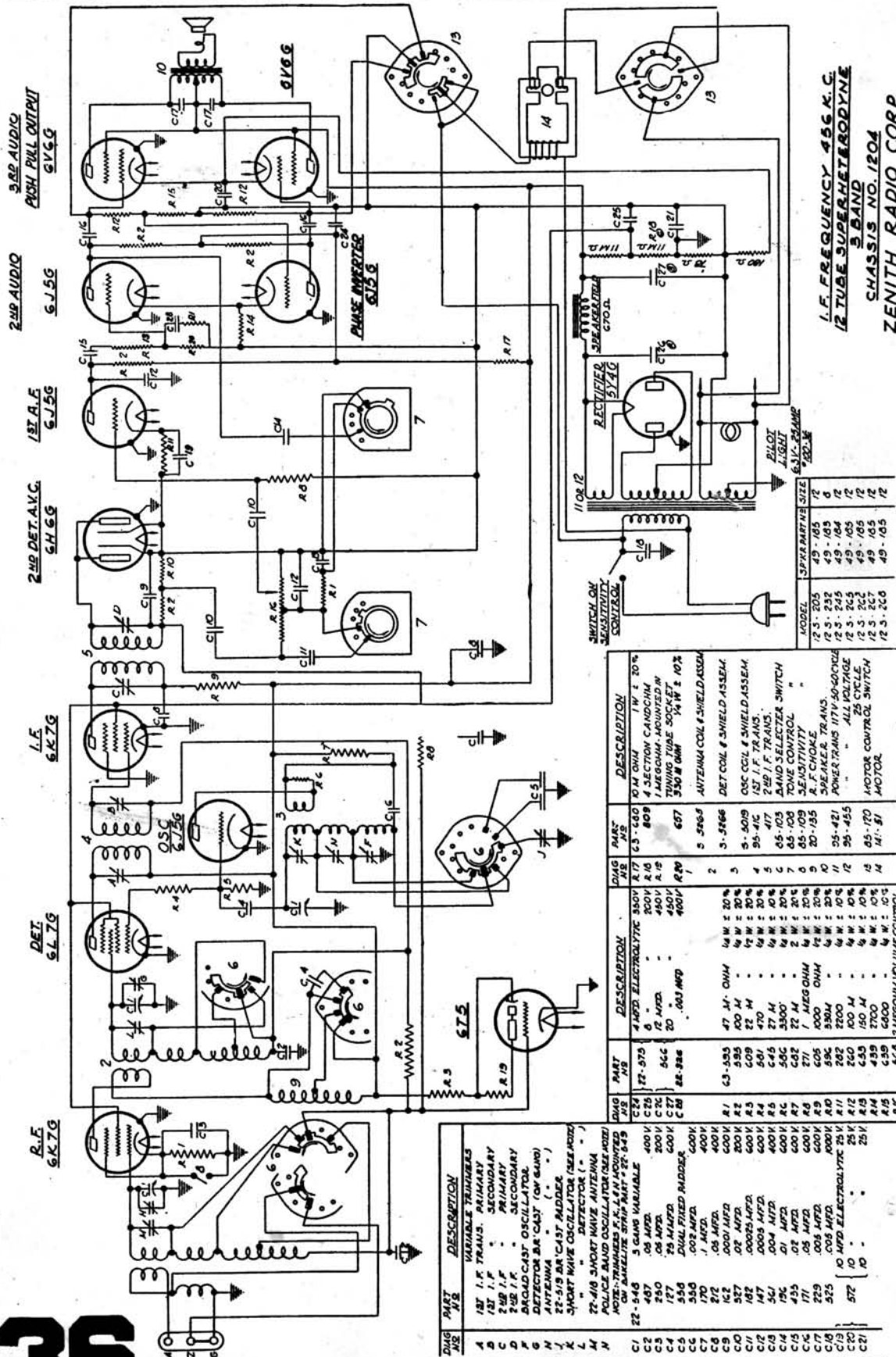
QTY	UNIT	DESCRIPTION	QTY	UNIT	DESCRIPTION
3	3530	3 MHPD	600V	1	30-1 ANTENNA COORD
1	3531	0.5 MFC	400V	1	ANTENNA COIL ASSEM
1	3532	25 MHPD	400V	1	OSCILLATING COIL ASSEM
4	3533	17C	400V	4	34421 DETECTOR COIL ASSEM
1	3534	0.6 MFD	400V	3	187-1 P TRANSFORMER
1	3535	0.2 MFD	400V	7	187-1 P TRANSFORMER
1	3536	0.1 MFD	400V	7	187-1 P TRANSFORMER
1	3537	0.1 MFD	400V	7	187-1 P TRANSFORMER
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1	3542	0.1 MFD	400V	7	187-1 P TRANSFORMER
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MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

Models 12-S-205, 12-S-232, 12-S-245, 12-S-265, 12-S-266, 12-S-267, 12-S-268 (1204 Chassis)

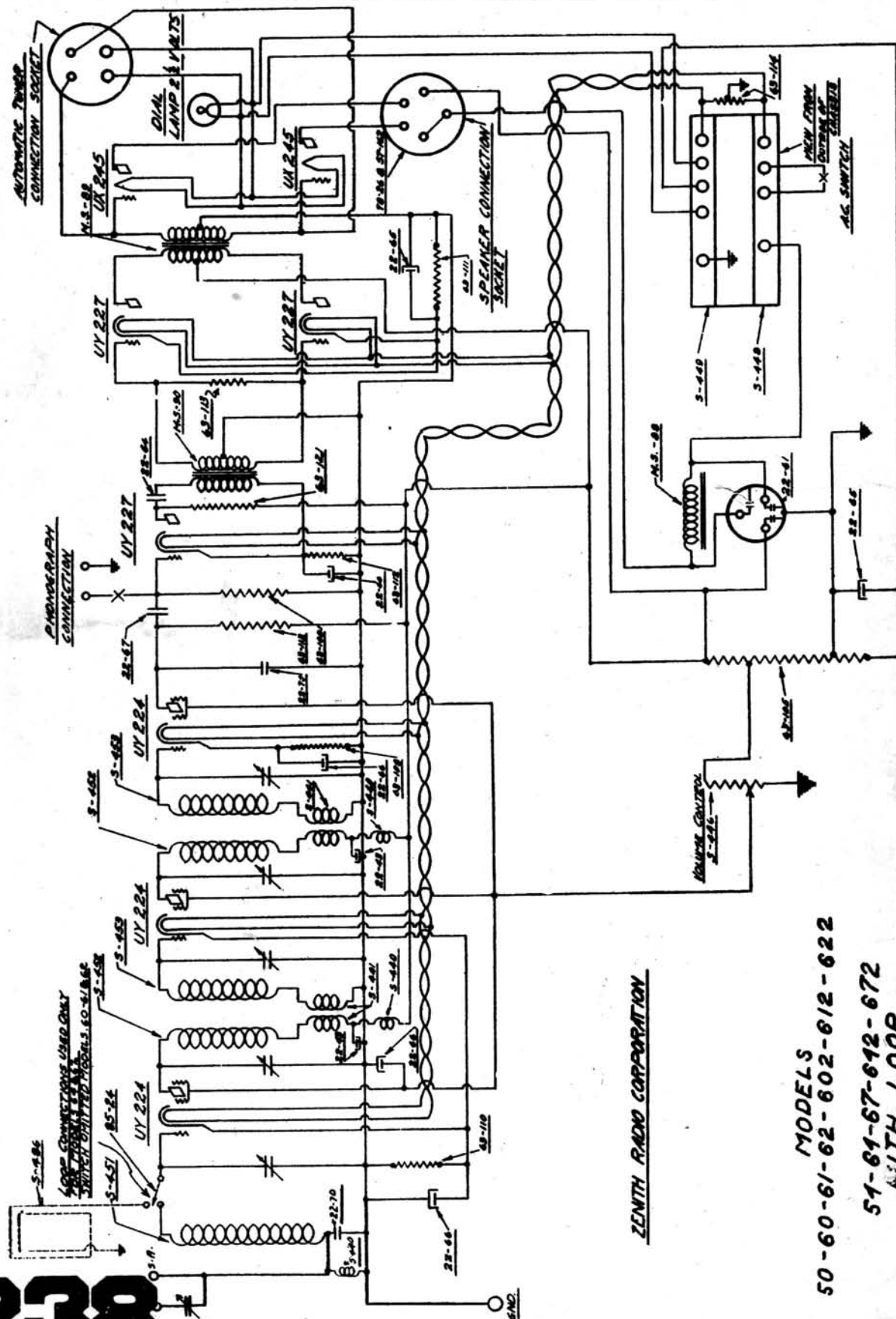


L.F. FREQUENCY 456 K.C.
12 TUBE SUPERHETERODYNE
5 BAND
CHASSIS NO. 1204
ZENITH RADIO CORP.

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MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



ZENITH RADIO CORPORATION

MODELS
50-60-61-62-602-612-622
51-61-67-612-672
WITH LOOP

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