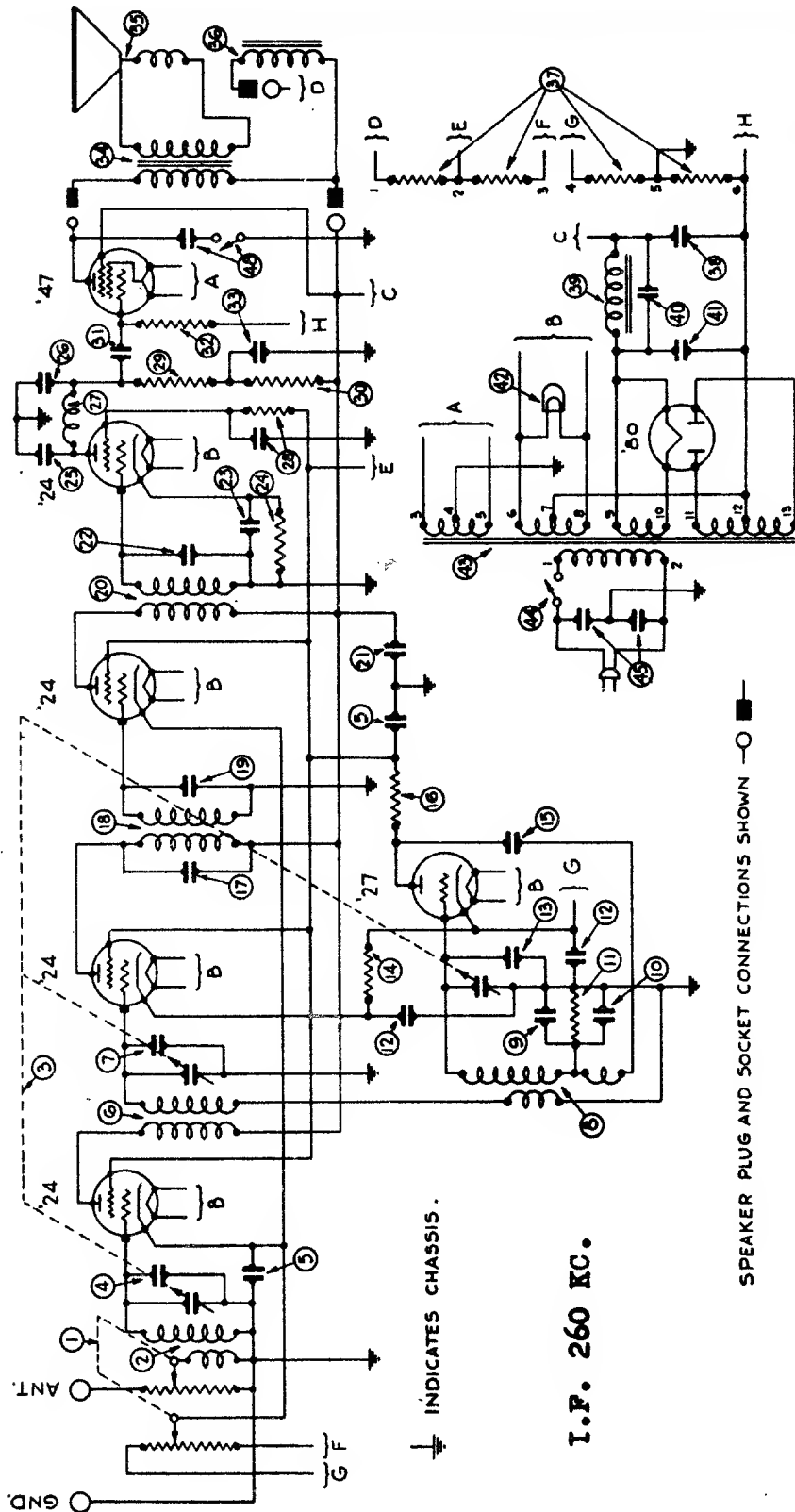




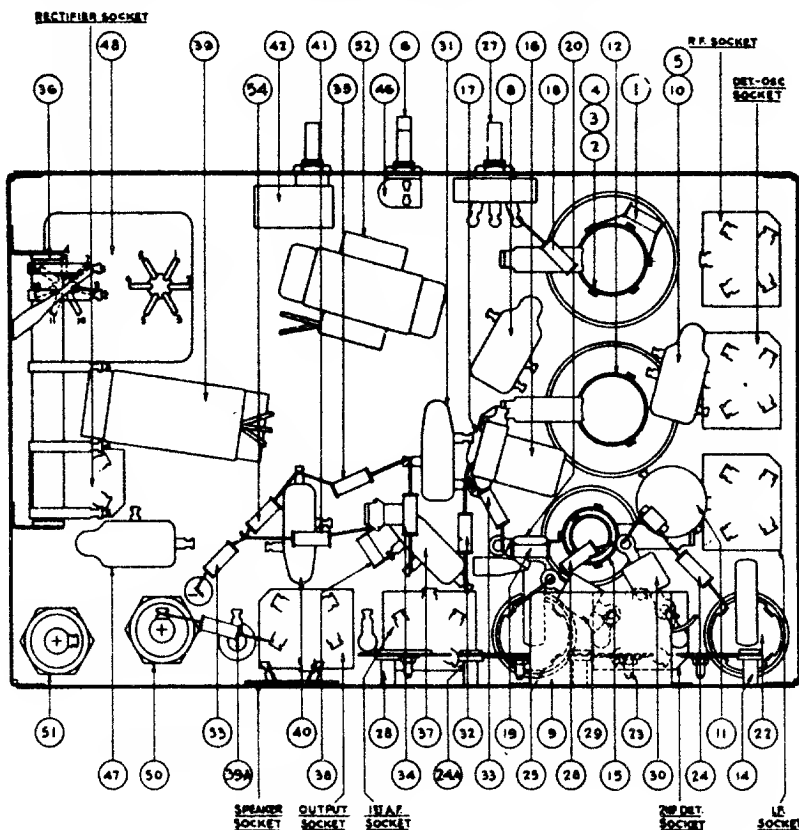
Philco Radio & Television Corp.

	Model: 70	Chassis:	Year: Pre October 1937
	Power:	Circuit:	IF:
	Tubes:		
	Bands:		
Resources			
Beitmans 1926-38 125			
Beitmans 1926-38 126			
RCC PHILCO 11			
Riders 1 (I) PHILCO 1-17			
Riders 1 (I) PHILCO 1-18			
Riders 2 (II) PHILCO 2-6			
Riders 2 (II) PHILCO 2-15			
Riders 2 (II) PHILCO 2-16			
Riders 3 (III) PHILCO 3-31			
Riders 3 (III) PHILCO 3-32			
Riders 8 (VIII) PHILCO 8-88			

MODELS 70 AND 70-A



MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



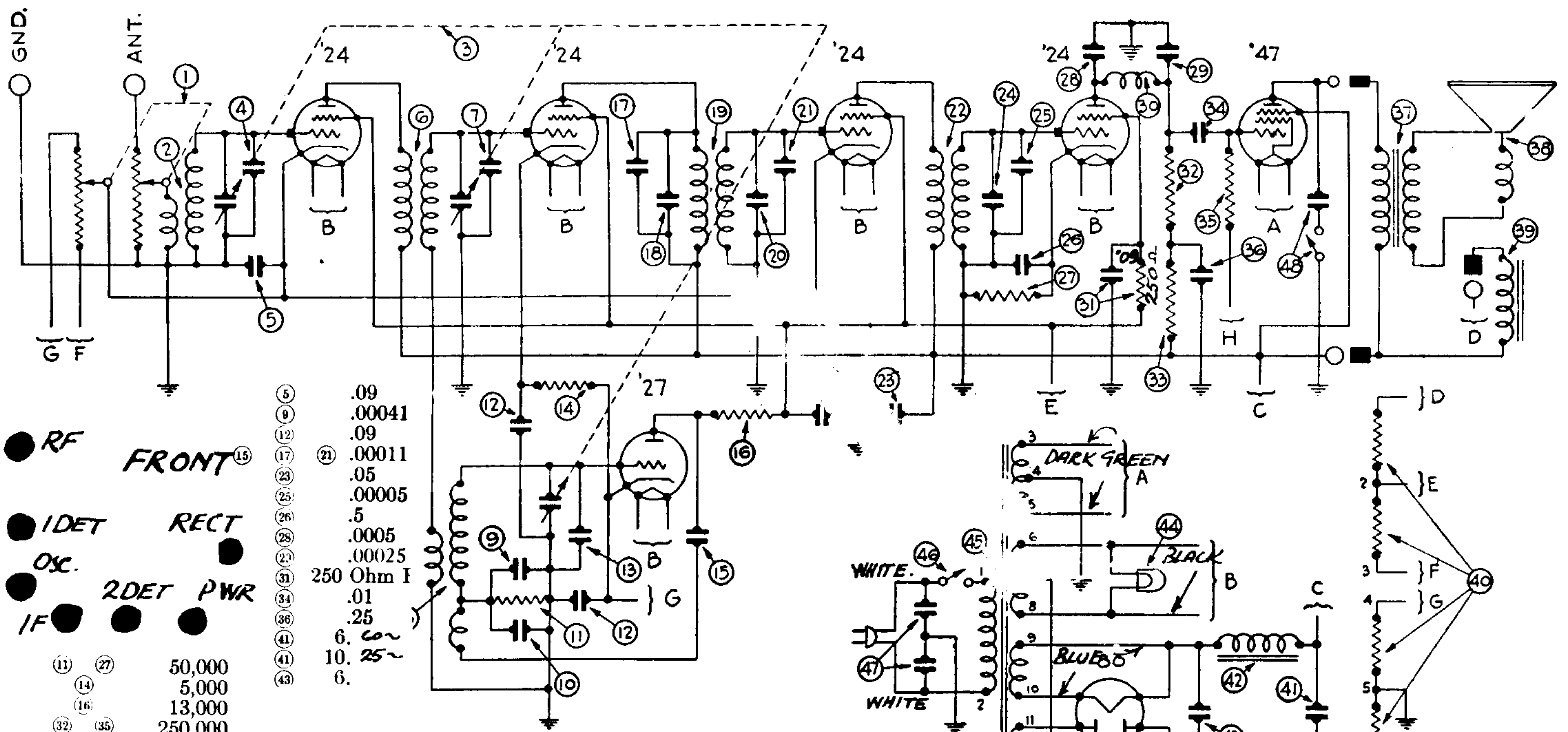
REPLACEMENT PARTS MODELS 70 AND 70-A

(Above Serial No. B-22,000)

No. on Figs. 3 and 4	Description	Part No.
①	Resistor (10,000 ohms)	4412
②	Antenna Coil	04339
③	Condenser (.05 mfd.) double	3615-AF
④	Tuning Condenser Assembly 50-60 cycles	04154
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	04186
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)	5872
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)	5872
㉔	Compensating Condenser 2nd I. F. Primary	04000-M
㉕	Second I. F. Transformer	03039
㉖	Resistor (99,000 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	4095
㊾	Condenser (.015 mfd. Double)	3793-H
㊿	Power Transformer (50-60 cycles)	5117
1	Power Transformer (25-40 cycles)	5118
2	Power Transformer (50-60 cycles, 230 volts)	5119
3	Pilot Light	3463
4	Electrolytic Condenser (6 mfd.) 50-60 cycles	4916
5	Electrolytic Condenser (14 mfd.) 25-40 cycles	5725
6	Electrolytic Condenser (6 mfd.) 50-60 cycles	4916
7	Electrolytic Condenser (10 mfd.) 25-40 cycles	5142
8	Filter Choke	4819
9	Resistor (51,000 ohms)	4518
10	Resistor (490,000 ohms)	4517
11	Tube Shield	04186
12	Knob (Large)	03064
13	Knob (Small)	03437
14	Knob Spring	4147
15	Grid Clip	4897
16	Five Prong Socket Assembly	4966
17	Four Prong Socket Assembly	4965
18	Dial Complete	03031
19	Bezel	5312
20	Chassis Mounting Screw	W-468
21	Mounting Washer	W-315
22	Rubber Washer	5189

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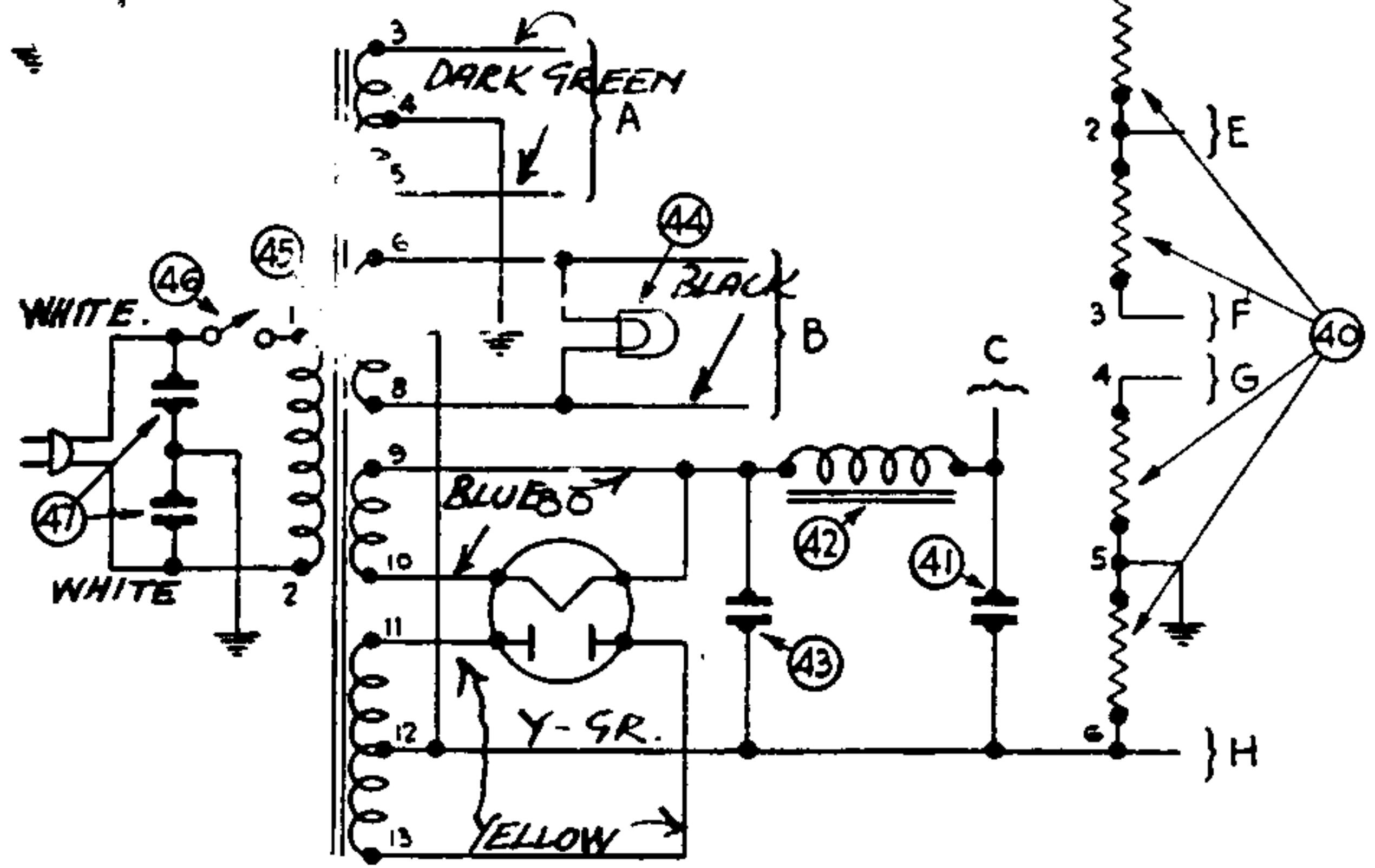
Models 70 and 70-A

I.F. 260 Kc.

MODEL 270 AND 270-A RADIO-PHONOGRAPH

1931-32

Circuit	Plate Volts	Screen Grid Volts	Control Grid Volts	Cathode Volts	Plate Milli-amperes
1st R. F.	250	85	3.	19.5	3.
1st Det.	250	87	5.5	21.5	.5
Osc.	85	...	2.	19.5	2.5
1st I. F.	250	87	3.	19.5	3.
2nd Det.	105	75	6.	22.	.1
Audio	245	255	1.	...	...

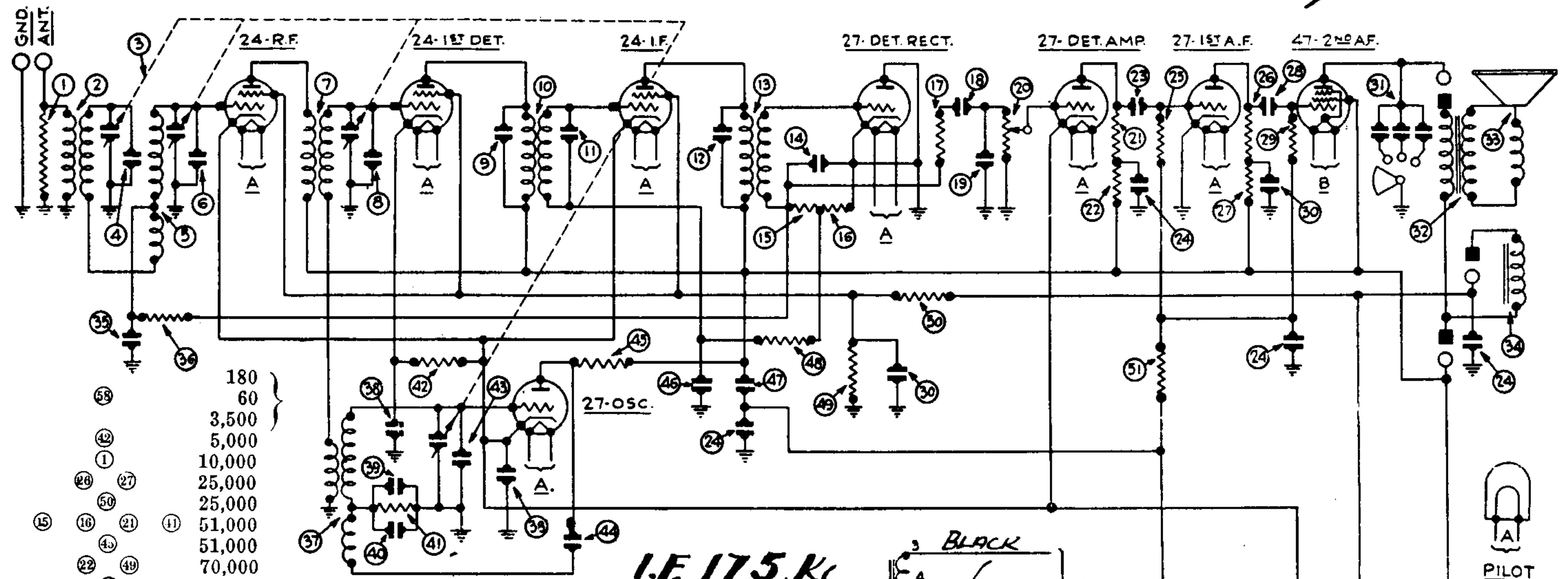


Circuit	Plate Volts	Screen Grid Volts	Control Grid Volts	Cathode Volts	Plate Milli-amperes
R. F.	255	60	.25	20	2.4
Osc.	65	...	.6	20	3.6
1st Det.	250	64	6.0	24	.25
I. F.	270	76	.25	18	.4
Det. Rect.	0	...	0	17	0
Det. Amp.	140	...	.4	18	2.0
1st A. F.	45	...	.4	20	1.8
Output	220*	240*	1.0*	...	32.*

All readings taken with antenna disconnected and ground on. Volume Control on full.

*These readings must be taken from the underside of the chassis using test prods and leads unless the set checker is specially equipped for testing pentode tubes.

90-90A 175 Kc.



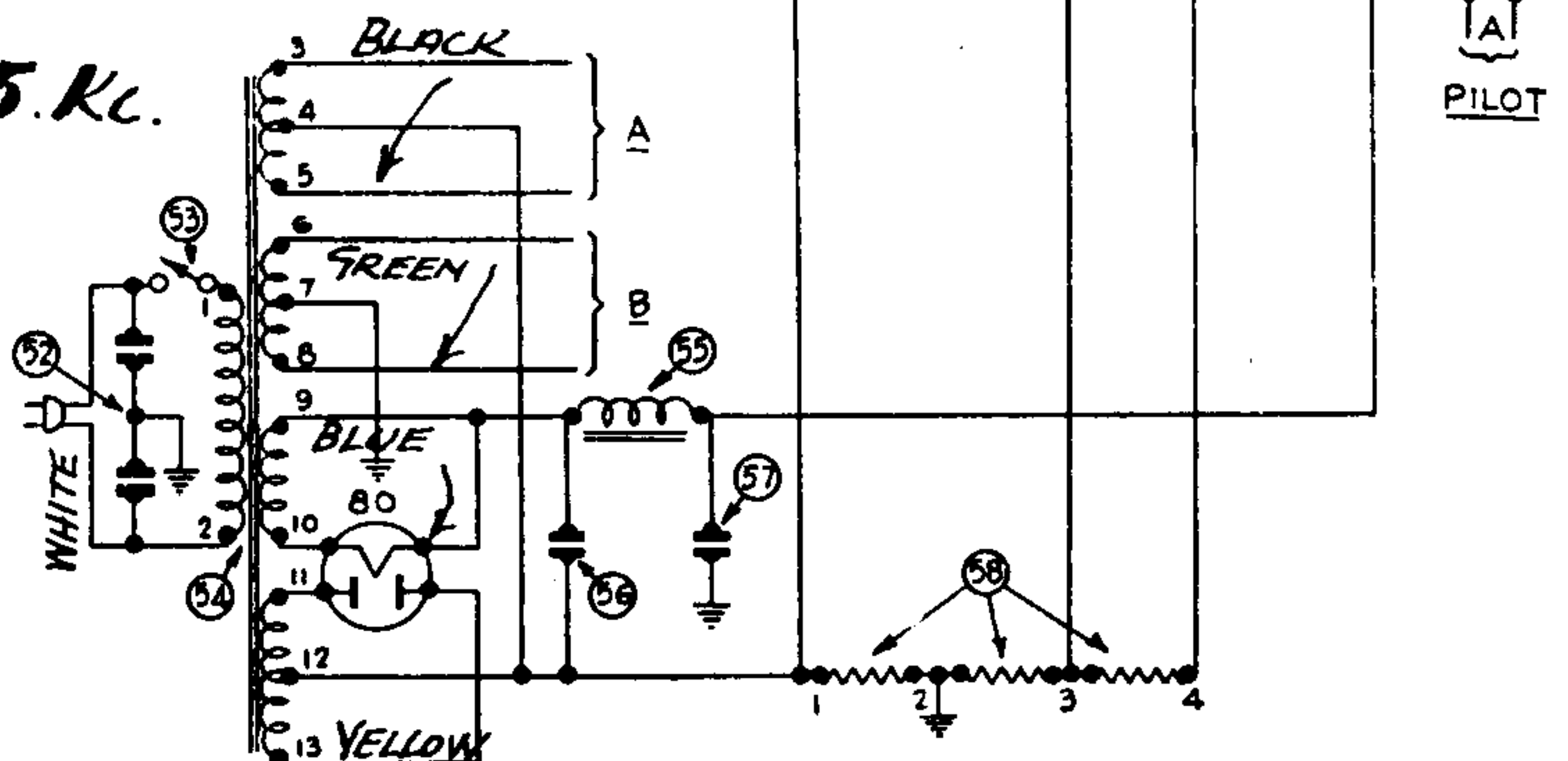
I.F. 175 Kc.

90 and 90-A

1931-32

FRONT

- RF
- OSC
- 1 DET
- I.F.
- RECT
- 1 AF
- PWR
- DET AMP
- DET-RECT



Printed in Canada

DATA SHEET

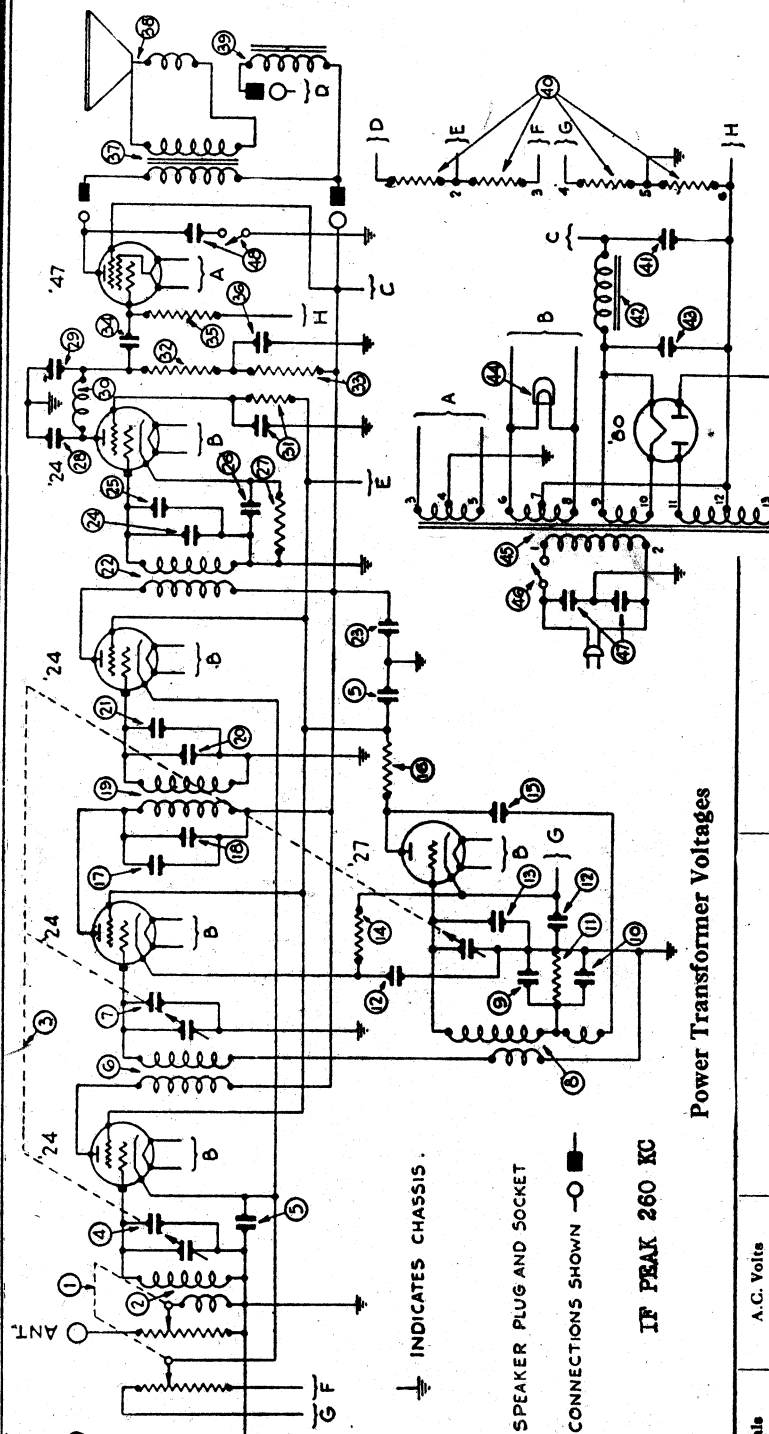
NOTE.
MODEL 90 WITH 2-47'S IN OUTPUT
HAS 260 Kc. I.F.

—Courtesy Philco Products Ltd. of Canada

PHILCO-11

PHILCO RADIO & TELEVISION CORP.

MODEL 70, 70-A
Below B-22,000
Voltage
Schematic
MODEL 570
Grandfather Clock



Power Transformer Voltages

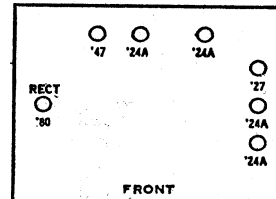
IF PEAK 260 KC

INDICATES CHASSIS.

SPEAKER PLUG AND SOCKET

CONNECTIONS SHOWN

Models 70, 70A, 70E, 270, 270A



MODEL 570 Grandfathers Clock
contains the same radio
equipment as Model 70

Tube Socket Readings Taken with AC Set Tester AC Line—115 volts

Terminals	A.C. Volts	Primary Filament of 47 Filament of 24 Filament of 80 Plates of 80 Center Tap of 3-5 Center Tap of 6-8 Center Tap of 11-13	Black (Small Gauge) Dark Green Black (Heavy Gauge) Light Blue Yellow Black, Green Tracer Black, Yellow Tracer Yellow, Green Tracer
1-2	105 to 125		
3-5	2.5		
6-8	2.5		
9-10	5.		
11-13	700.		
4.			
7			
12			

Type	Circuit	Tube					Plate Milli- amperes
		Filament Volts	Plate Volts	Screen Grid Volts	Control Grid Volts	Cathode Volts	
24	1st R. F.	2.25	250	85.	3.	19.5	3.
24	1st Det.	2.25	250	87	5.5	21.5	.5
27	Osc.	2.25	.85	87	2.	19.5	2.5
24	1st I. F.	2.25	250	87	3.	19.5	3.
24	2nd Det.	2.25	105	75	6.	22.	.1
47	Audio	2.25	245	255	1.		40/plate
80	Rectifier	4.7					

Note—Volume Control Off; Station Selector turned to Low Frequency End.

If electrolysis occurs on the insulation of the wire between the filter choke and the electrolytic condenser, unsolder the wire and cover with spaghetti.

MODEL 70,70-A
Chassis- Data
MODEL 570
Grandfather Clock.

PHILCO RADIO & TELEVISION CORP.

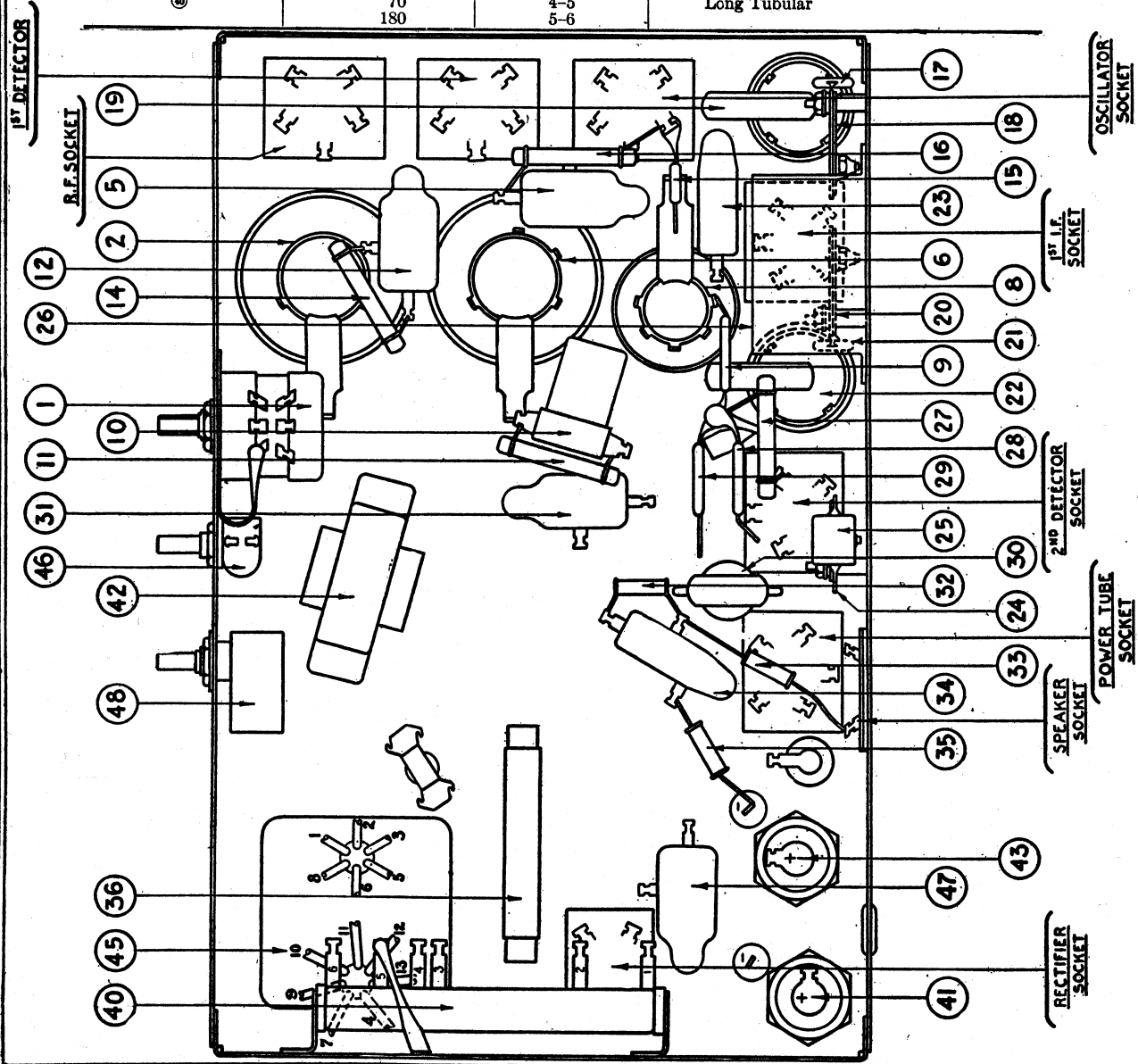
No. on Figs. 3 and 4	Capacity MFD	Color
15	.09	Yellow Orange
16	.00041	Blue, Golden Yellow
17	.09	Light Blue, White
18	.00011	Green
19	.05	Yellow
20	.00005	
21	.5	
22	.0005	
23	.00025	
24	.09 and 250 Ohm Resistor	
25	.01	
26	.25	
27	(25 to 40 cycles) 10.	
28	(50 to 60 cycles) 6.	
29	6.	

Condenser Data

No. on Figs. 3 and 4	Resistance	Terminal	Body	Color Tip	Dot
11	50,000	...	Green	Brown	Orange
12	5,000	...	Green	Black	Red
13	13,000	...	Brown	Orange	Orange
14	250,000	...	Red	Yellow	Yellow
15	100,000	...	White	White	Orange
16	1,060	1-2			
17	2,300	2-3			
18	70	4-5			
19	180	5-6			

Resistor Data

Long Tubular



Numbering of Philco Coils

For the purpose of identification, Philco coils are being code numbered. These numbers are stamped upon the mounting bracket before the part leaves the National Service Station. The following is a list of these coils (dated Jan. 1932)

KEY NO. IN SERVICE BULLETIN DIAGRAM

CODE NO. PART NO. USED IN MODELS

1	3076A	511, 86, 87	⊙⊙⊙
2	3076B	511, 86, 87	⊙⊙⊙
3	3509B	65	⊙
4	3509A	65	⊙
5	3744A	95, 96	⊙⊙
6	3744B	95, 96	⊙⊙
7	3744C	95, 96	⊙⊙
8	3834A	90 (Penicote Output)	⊙⊙
9	3834B	70, 77, 40, 41	⊙⊙⊙
10	3834C	70, 77, 40, 41	⊙⊙⊙
11	3834D	70, 77, 40, 41	⊙⊙⊙
12	3834E	70, 77, 40, 41	⊙⊙⊙
13	3834F	70, 77, 40, 41	⊙⊙⊙
14	3834G	70, 77, 40, 41	⊙⊙⊙
15	3834H	70, 77, 40, 41	⊙⊙⊙
16	3834I	70, 77, 40, 41	⊙⊙⊙
17	3834J	70, 77, 40, 41	⊙⊙⊙
18	3834K	70, 77, 40, 41	⊙⊙⊙
19	3834L	70, 77, 40, 41	⊙⊙⊙
20	3834M	70, 77, 40, 41	⊙⊙⊙
21	3834N	70, 77, 40, 41	⊙⊙⊙
22	3834O	70, 77, 40, 41	⊙⊙⊙
23	3834P	70, 77, 40, 41	⊙⊙⊙
24	3834Q	70, 77, 40, 41	⊙⊙⊙
25	3834R	70, 77, 40, 41	⊙⊙⊙
26	3834S	70, 77, 40, 41	⊙⊙⊙
27	3834T	70, 77, 40, 41	⊙⊙⊙
28	3834U	70, 77, 40, 41	⊙⊙⊙
29	3834V	70, 77, 40, 41	⊙⊙⊙
30	3834W	70, 77, 40, 41	⊙⊙⊙
31	3834X	70, 77, 40, 41	⊙⊙⊙
32	3834Y	70, 77, 40, 41	⊙⊙⊙
33	3834Z	70, 77, 40, 41	⊙⊙⊙
34	3834A	70, 77, 40, 41	⊙⊙⊙
35	3834B	70, 77, 40, 41	⊙⊙⊙
36	3834C	70, 77, 40, 41	⊙⊙⊙
37	3834D	70, 77, 40, 41	⊙⊙⊙
38	3834E	70, 77, 40, 41	⊙⊙⊙
39	3834F	70, 77, 40, 41	⊙⊙⊙
40	3834G	70, 77, 40, 41	⊙⊙⊙
41	3834H	70, 77, 40, 41	⊙⊙⊙
42	3834I	70, 77, 40, 41	⊙⊙⊙
43	3834J	70, 77, 40, 41	⊙⊙⊙
44	3834K	70, 77, 40, 41	⊙⊙⊙
45	3834L	70, 77, 40, 41	⊙⊙⊙
46	3834M	70, 77, 40, 41	⊙⊙⊙
47	3834N	70, 77, 40, 41	⊙⊙⊙

Standard Compensating Condensers

The various compensating condensers used in the models 35, 70, 270, 370, 90, 112, and 212 have been changed so as to include a bakelite mounting board on which the code letter of the condenser appears. In the case of the I, F, compensating condensers, which have been used in conjunction with a parallel fixed condenser, the new compensating condensers have been increased in capacity so that the fixed condensers are no longer required. For replacement purposes, if desired, the new compensating condensers can be substituted on earlier sets for the earlier combination of a fixed and an adjustable condenser.

The low frequency compensating condensers have been changed with respect to the bakelite mounting, but their capacity remains unchanged, thereby requiring the parallel fixed condenser as in the past.

All of these new condensers can be identified by the letter which is stamped on the bakelite mounting board. For example part 04000-E has the letter E stamped over the surface of the mounting board; part 04000-F has the letter F stamped on the board.

The following table lists the part numbers of the various new condensers, their identification code letter, capacity range, where used, the superseded part number, and the part number of the parallel fixed condenser when one is still used.

Part Number	Identification Letter	Capacity Range Mmf.	Used on Models	Super-sedes	Used with Fixed Condenser
04000-B	B	40-250	90 (Early and Late)	03050	4520 (700 mmf.)
04000-D	D	6-50	112, 212	3772-A	—
04000-E	E	5-30	112, 212	3983-A	—
04000-F	F	40-250	112, 212	3772-B	4520 (700 mmf.)
			370 70, 270	08120	5120 (410 mmf.)
			35	03249	5120 (410 mmf.)
04000-H	H	40-180	70*, 270*, 370* 90* early	03051	—
04000-J	J	40-180	70*, 270*, 370*, 212* 112*, 90* early	3772-C	—
04000-K	K	30-140	70*, 370*	03061	—
04000-L	L	30-140	270*	03262	—
			112*	3772-D	—
04000-M	M	15-130	35*	03411	—

*FIXED PARALLEL CONDENSER NOT REQUIRED

PHILCO RADIO & TELEVISION CORP.

(438 - Dated Sept. 1931)

PHILCO RADIO & TELEVISION CORP.

MODEL 70, 70-A
Below B-22,000
Parts List

REPLACEMENT PARTS—MODELS 70 AND 70-A

(Service Bulletin No. 57)

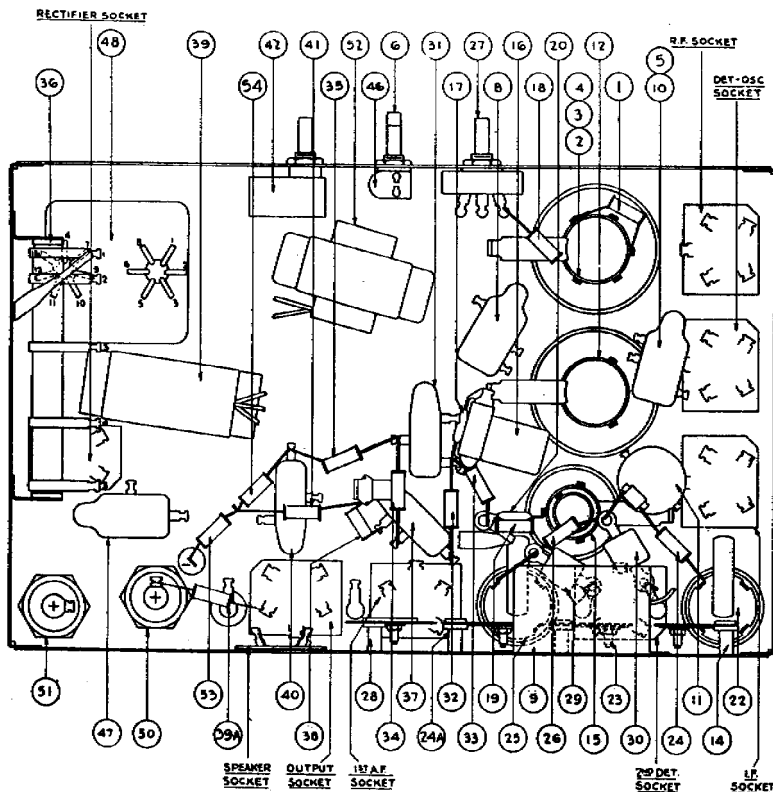
No. on Figs. 3 and 4	Description	Part No.	No. on Figs. 3 and 4	Description	Part No.
①	Volume Control	5039	④	Condenser (Electrolytic) (50-60 cycles)	4916
②	First R. F. Transformer	03082		Condenser (Electrolytic) (25-40 cycles)	5142
③	Tuning Condenser (25-40 cycles)	03077	⑤	Filter Choke	4951
	Tuning Condenser (50-60 cycles)	03076	⑥	Condenser (Electrolytic) (50-60 cycles)	4916
④	Compensating Condenser (Part of Gang Assembly)			Condenser (Electrolytic) (25-40 cycles)	5142
⑦	Bypass Condenser—.09 M. F. Double	4989-C	④	Pilot Lamp	3463
⑧	First Detector Transformer	03083	⑤	Power Transformer—50-60 cycles	5117
⑦	Compensating Condenser (Part of Gang Assembly)			Power Transformer—25-40 cycles	5118
⑧	Oscillator Coil	03084	⑥	Switch	4095
⑨	Fixed Condenser—.00041 M. F.	5120	⑦	Bypass Condenser—.015 M. F. (Double)	3793-H
⑩	Compensating Condenser	03120	⑧	Tone Control	03140
⑪	Resistor—50,000 Ohms	4237		Mica (Compensating Condenser)	3473
⑫	Bypass Condenser—.09 M. F. Double	4989-C		Insulating Washer (Compensating Condenser)	3500
⑬	Compensating Condenser (Part of Gang Assembly)			Rubber Washer (Chassis Mtg.)	5189
⑭	Resistor—5,000 Ohms	3526		Grommet (R. F. Transformer Shield)	3747
⑮	Condenser—.00011 M. F.	4519		Rubber Washer (Tuning Condenser Mtg.)	3914
⑯	Resistor—13,000 Ohms	3766		Rubber Washer (Tuning Condenser Mtg.)	3915
⑰	Condenser—.00011 M. F.	3772-C		Rubber Washer (Tuning Condenser Mtg.)	3916
⑱	Compensating Condenser			Spring Switch Knobs	4147
⑲	First I. F. Transformer	03091		Grid Clip	4897
⑳	Compensating Condenser	03051		Five Prong Socket	4956
㉑	Fixed Condenser—.00011			Speaker Socket	4957
㉒	Second I. F. Transformer	03092		Knobs (Dial)	03063
㉓	Bypass Condenser—.05 M. F.	3615-L		Tube Socket (Rectifier Tube)	5026
㉔	Compensating Condenser	03061		Steel Washer (Chassis Mtg.)	5058
㉕	Condenser—.00005			Knob (Switch, Tone, Volume) (Baby Grand)	4290-A
㉖	Bypass Condenser—.5	3583		Volume Control Insulator	4092
㉗	Resistor—50,000 Ohms	4237		Volume Control Insulator	4286
㉘	Condenser—.0005	3910		Knob—Tone, Volume (Highboy)	03064
㉙	Condenser—.00025	3082		Nut—Volume, Tone, Switch	W-434
㉚	Detector R. F. Choke	03086		Complete Drive Bracket	03011
㉛	Resistor—250 Ohms and Condenser—.09 M. F.	4989-E		Dial Disc Assembly	03031
㉜	Resistor—250,000 Ohms	4410		Fahnestock Clip	L-1126
㉝	Resistor—100,000 Ohms	4411		Knob Spring - Tone, Volume, Dial for Lowboy and Highboy	5262
㉞	Condenser—.01 M. F.	3903-J		Knob Spring - Tone, Volume for Baby Grand	5173
㉟	Resistor—250,000 Ohms	4410		Knob Spring - Dial - Baby Grand	5262
㊱	Condenser—.25 M. F.	4264			
㊲	Output Transformer	2873			
㊳	Voice Coil and Cone	02996			
㊴	Speaker Field assembled with Pot and Frame	02966			
㊵	B. C. Resistor	5125			

Several changes in wiring and part numbers have been made in model 70.

The filter choke, part 4951 has been changed to part 4819, the same choke as used in the model 21. On the 50-60 cycle models, a .09 mfd. condenser, part 4989-J, is connected across the filter choke, part 4819. On the 25 cycle models, this condenser should be .18 mfd., part 4989-H, ungrounded. The two 240,000 ohm resistors, part 4410, Nos. 32 and 35 Service Bulletin No. 57 and Nos. 25 and 29, Service Bulletin No. 85, should be of the Continental Carbon type. This is the resistor without the metal ends.

MODEL 70, 70-A
Above B-22,000
Chassis

PHILCO RADIO & TELEVISION CORP.



MODELS 70 AND 70-A

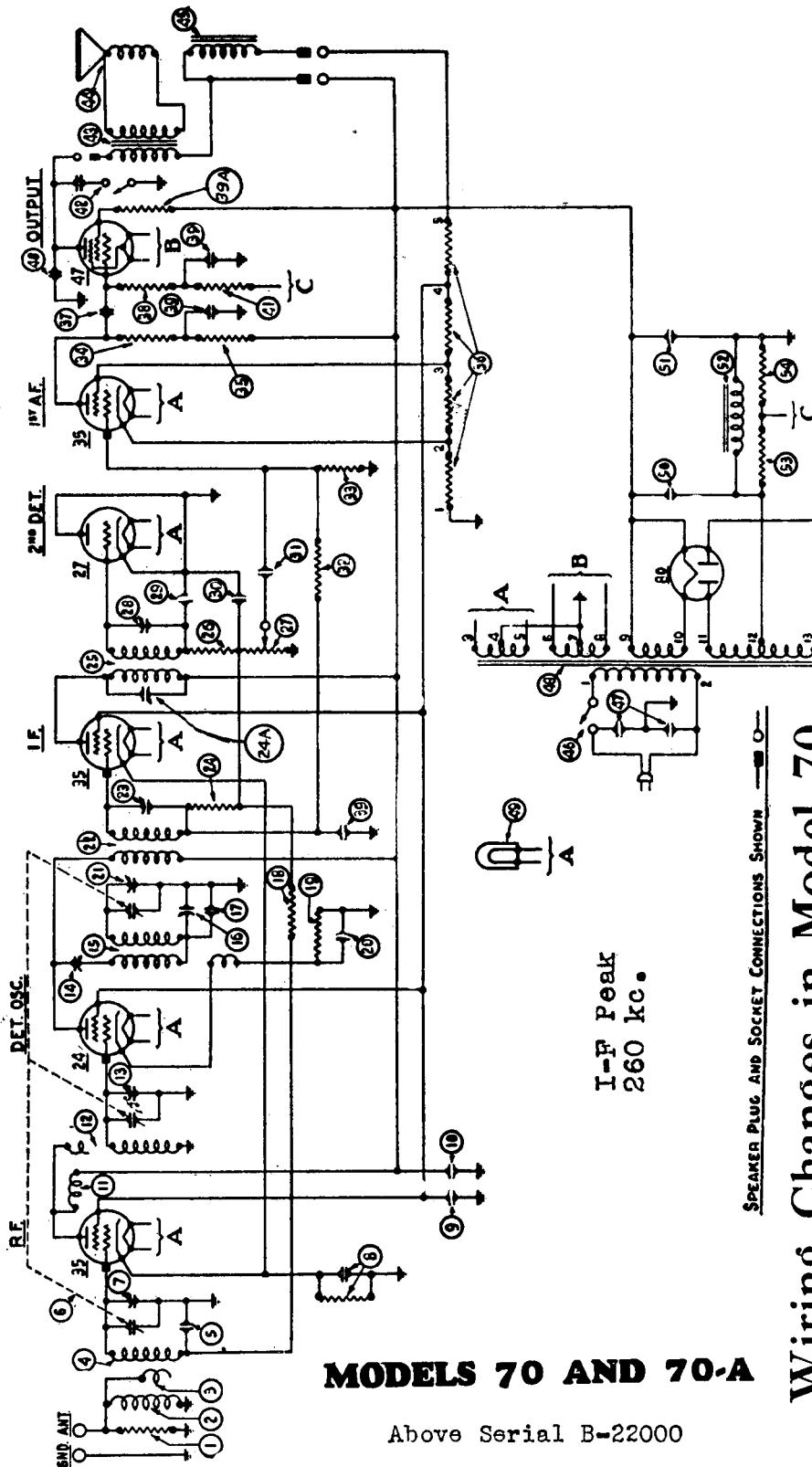
Above Serial B-22000

Part Numbers on Service Reports

It is highly important that the complete part number including the letter, of defective parts be specified on all of your service reports. Many parts have a letter after the part number as listed in the service bulletins. Other parts—namely, power transformers, audio transformers, filter chokes, field coils, electrolytic condensers, and volume controls are listed in the service bulletins without a letter, but actually have this letter stamped on the part itself after the part number.

PHILCO RADIO & TELEVISION CORP.

MODEL 70, 70-A
Above B-22,000
Schematic
Chassis Changes



Wiring Changes in Model 70

(Above Serial No. B-22,000)

The filter condenser ⑤ Fig. 1 and 2, Service Bulletin No. 57B, part No. 04194 has been changed to part No. 04559. The 1.5 Mfd. section of 04194, connected in the plate filter circuit of the first A.F. tube, is changed to .75 Mfd.; the .05 Mfd. section, connected between resistor ⑥ and ground, is removed from the 04194 block, and is connected externally as an .05 Mfd. condenser, part 3615L. The new condenser part 04559 still contains the .25 Mfd. section which is wired in the same manner as in 04194. The 25,000 ohm resistor ③, part 4516, is changed to 51,000 ohms, part 4518.

MODEL 70, 70-A
Above B-22,000
Voltage- Values

PHILCO RADIO & TELEVISION CORP.

Model 70 Receivers are for operation on 100-130 volt, 50-60 cycle AC lines
Model 70A Receivers are for operation on 100-130 volt, 25-60 cycle AC lines

Table 1—Tube Socket Readings Taken with A.C. Set Tester—AC Line—115 volts

Tube		Filament Volts	Plate Volts	Control Grid Volts	Screen Grid Volts	Cathode Volts	Plate Milli- amperes
Type	Circuit						
35	R. F.	2.25	250	5	70	6	4.3
24	OSC & 1st Det.	2.25	250	8	12	8	.5
35	I. F.	2.25	250	20	70	0	1.7
27	Rectifier Detector	2.25	...	0	0	0	0
35	Audio Amplifier	2.25	50	0	.60	0	1.0
47	Output	2.25	240*	4*	255*	.	28*
80	Rectifier	4.70	260/plate	..	...	.	...

*These readings must be taken from the underside of the chassis, using test prods and leads unless the set checker is specially equipped for testing pentode tubes.

Table 2—Power Transformer Voltages

Terminals	A.C. Volts	Circuit	Color
1-2	105 to 125	Primary	White
3-5	2.5	Filament of 24 and 35's	Black
6-8	2.5	Filament of 47	Dark Green
9-10	5.	Filament of 80	Blue
11-13	700	Plates of 80	Yellow
4		Center Tap of 3-5	Black, Yellow Tracer
7		Center Tap of 6-8	Black, Green Tracer
12		Center Tap of 11-13	Yellow, Green Tracer

Table 3—Condenser Data

Nos. on Figs. 1 and 2	Capacity (mfd.)	Container
(29) (30)	.00011	Blue and Yellow
(17)	.00041	Yellow and Orange
(20)	.0007	White and Yellow
(8)	.003	Orange and White
(21) (27) (40)	.01	Black Bakelite
(17)	.015 (Double)	Black Bakelite
(8) (16)	.05	Black Bakelite
(30)	.05, .25, 1.5	Metal
(8)	.09 & 200 Ohms	Black Bakelite
(9)	.5	Metal
(30) (21) (50-60 cycles)	6	Electrolytic
(31) (25-40 cycles)	10	Electrolytic
(29) (25-40 cycles)	14	Electrolytic

Table 4—Resistor Data

Nos. on Figs. 1 and 2	Power (watts)	Resistance (ohms)	Color		
			Body	Tip	Dot
(26)			Long Tubular		
	Terminals { 1-2 2-3 3-4 4-5 }	{ 26 850 1650 1060 }			
(2)	.5	1,000	Brown	Black	Red
(20) A	.5	2,900	Red	White	Red
(1) (13)	.5	10,000	Brown	Black	Orange
(20)	.5	25,000	Red	Green	Orange
(15)	.5	51,000	Green	Brown	Orange
(34)	.5	70,000	Violet	Black	Orange
(20)	.5	99,000	White	White	Orange
(11)	.5	330,000	Red	Yellow	Yellow
(20) (24)	.5	490,000	Yellow	White	Yellow
(20)	.5	1,000,000	Brown	Black	Green
(13) (21)	.5	2,000,000	Red	Black	Green
(22)	.5	4,000,000	Yellow	Black	Green

Models 70 and 70-A Receivers

(Above Serial No. B-22,000)

MODEL 70(Below Ser.#B22,000)

270

MODEL 80

MODEL 81

Alignment, Trimmers

PHILCO RADIO & TELEV. CORP.

MODEL NOS. 70 (below ser. #B22,000), 270

Signal Generator Connection	Signal Generator Frequency	Dial Position	Wave Band Switch Position	Trimmer Number	Output Signal
Remove grid clip from 1st det.					
Control grid of 1st det.	200 k.c.	55	...	1	Max.
"	"	"	...	2	Max.
"	"	"	...	3	Max.
Connect grid clip to 1st det.					
Ant.*	1400 k.c.	140	...	4	Max.
"	"	"	...	5	Max.
"	"	"	...	6	Max.
"	600 k.c.	60	...	7	Max.**
"	1400 k.c.	140	...	4	Max.

* Connect a 200-mmfd. condenser between signal generator and antenna post of set, at the antenna post.

** While rocking.

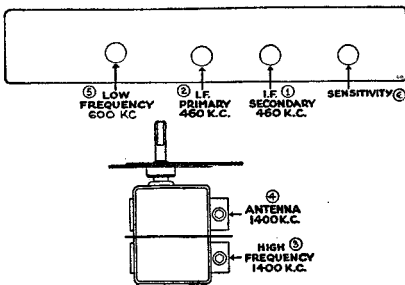
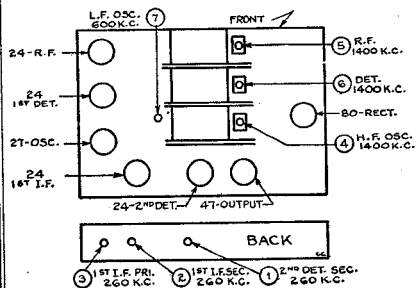
MODEL NO. 80

Signal Generator Connection	Signal Generator Frequency	Dial Position	Wave Band Switch Position	Trimmer Number	Output Signal
Remove grid clip from det.-osc.					
Control grid of det.-osc.	460 k.c.	55	...	1	Max.
"	"	"	...	2	Max.
Connect grid clip to det.-osc.					
Ant.*	1400 k.c.	140	...	3	Max.
"	"	"	...	4	Max.
"	600 k.c.	60	...	5	Max.**
"	1400 k.c.	140	...	3	Max.
Note 1	Note 1	Note 1	...	6	Note 1

* Use a 100-mmfd. condenser as dummy antenna.

** While rocking.

Note 1.—Connect antenna to receiver. Tune in station, first at about 120 and adjust (5) to a point just before squealing starts. Tune in stations along other points on dial. If squealing is present at any point readjust (5) slightly until there is none at any point along dial. This adjustment may have to be changed if set is moved to different location or if antenna length or 2nd det. tube is changed.



MODEL NO. 81

Signal Generator Connection	Signal Generator Frequency	Dial Position	Wave Band Switch Position	Trimmer Number	Output Signal
Remove grid clip from det.-osc.					
Control grid of det.-osc.	460 k.c.	55	Broadcast	1	Max.
"	"	"	"	2	Max.
Connect grid clip to det.-osc.					
Ant.*	1400 k.c.	140	"	3	Max.
"	"	"	"	4	Max.
"	600 k.c.	60	"	5	Max.**
"	1400 k.c.	140	"	6	Max.
"	1700 k.c.	170	Pulse	7	Max.
"	1700 k.c.	170	"	8	Max.
Note 1	Note 1	Note 1	Broadcast		Note 1

* Use a 100-mmfd. condenser as dummy antenna.
 ** While rocking antenna to receiver. Tune in station, first at about 120 and adjust (5) to a point just before squealing starts. Tune in stations along other points on dial. If squealing is present at any point readjust (5) slightly until there is none at any point along dial. This adjustment may have to be changed if antenna length or 2nd det. tube is changed.

