

PHILCO

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Radio Service Bulletin—No. 57

Models 70 and 70-A Receivers

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 AC Set Tester AC Line—115 volts

Tube		Filament Volts	Plate Volts	Screen Grid Volts	Control Grid Volts	Cathode Volts	Plate Milli-amperes
Type	Circuit						
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	...	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.	...	...
80	Rectifier	4.7	...	...	...	...	40/plate

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

Table 2—Power Transformer Voltages

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

Table 3—Condenser Data

No. on Figs. 3 and 4	Capacity MFD	Color
(5)	.09	
(9)	.00041	Yellow Orange
(12)	.09	
(15) (17) (21)	.00011	Blue, Golden Yellow
(23)	.05	
(25)	.00005	Light Blue, White
(26)	.5	
(28)	.0005	Green
(29)	.00025	Yellow
(31)	.09 and 250 Ohm Resistor	
(34)	.01	
(36)	.25	
(41)	(25 to 40 cycles) 6.	
(41)	(50 to 60 cycles) 10.	
(43)	6.	

Table 4—Resistor Data

No. on Figs. 3 and 4	Resistance	Terminal	Body	Color Tip	Dot
(11) (27)	50,000	...	Green	Brown	Orange
(14)	5,000	...	Green	Black	Red
(16)	13,000	...	Brown	Orange	Orange
(32) (35)	250,000	...	Red	Yellow	Yellow
(33)	100,000	...	White	White	Orange
	1,060	1-2			
	2,300	2-3			
(40)	70	4-5	Long Tubular		
	180	5-6			

MODELS 70 AND 70-A

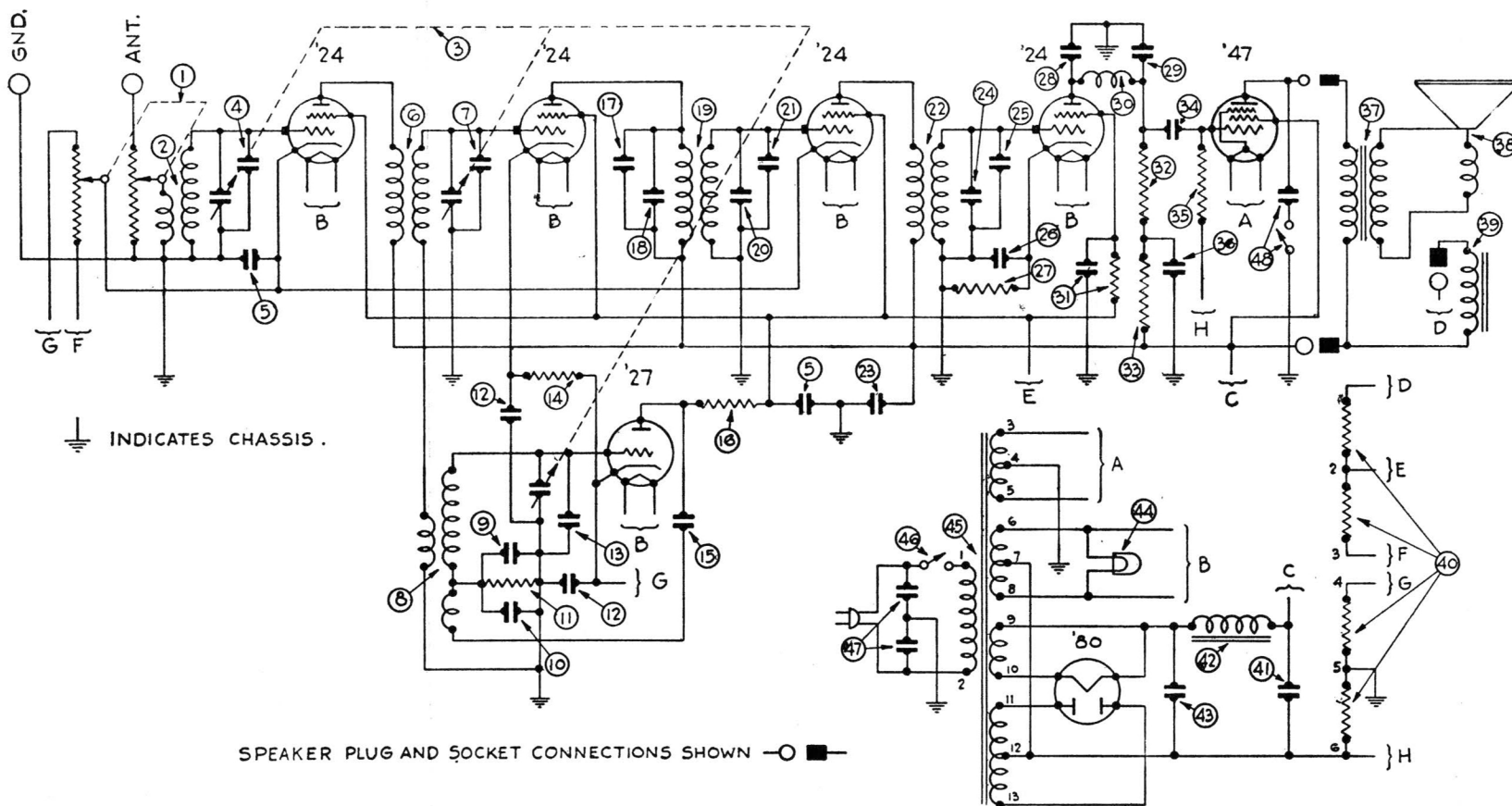


Fig. 1

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MODELS 70 AND 70-A

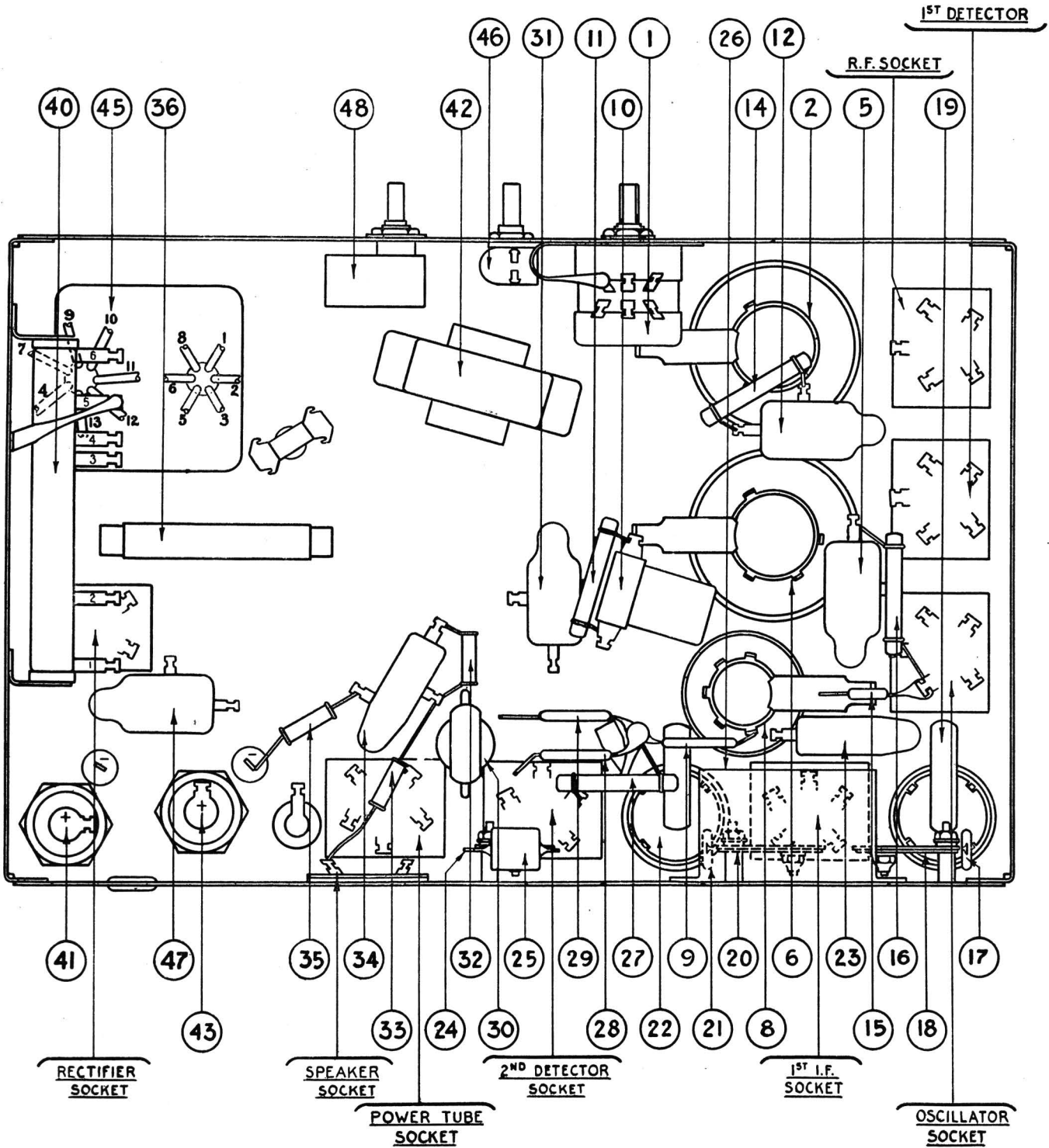


Fig. 2

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ADJUSTMENT OF MODELS 70 AND 70-A

These Receivers are accurately adjusted at the Factory prior to their shipment. Under no circumstances are the adjusting condensers to be changed in the field. This alignment requires special oscillator equipment, which all Philco Distributors have. If for any reason the Receiver needs adjustment it must be returned to the Distributor's Service Department.

REPLACEMENT PARTS

No. on Figs. 3 and 4	Description	Part No.	No. on Figs. 3 and 4	Description	Part No.
①	Volume Control	5039	②7	Output Transformer	2673
②	First R. F. Transformer	03082	③③	Voice Coil and Cone	02993
③	Tuning Condenser (25-40 cycles)	03077	③④	Field Coil Assembly	02966
	Tuning Condenser (50-60 cycles)	03076	④④	B. C. Resistor	5125
④	Compensating Condenser (Part of Gang Assembly)		④④	Condenser (Electrolytic) (50-60 cycles)	4916
⑤	Bypass Condenser—.09 M. F. Double	4989-C		Condenser (Electrolytic) (25-40 cycles)	4142
⑥	First Detector Transformer	03083	④④	Filter Choke	4951
⑦	Compensating Condenser (Part of Gang Assembly)		④④	Condenser (Electrolytic) (50-60 cycles)	4916
⑧	Oscillator Coil	03084		Condenser (Electrolytic) (25-40 cycles)	5142
⑨	Fixed Condenser—.00041 M. F.	5120	④④	Pilot Lamp	3463
⑩	Compensating Condenser	03120	④⑤	Power Transformer—50-60 cycles	5117
⑪	Resistor—50,000 Ohms	4237		Power Transformer—25-40 cycles	5118
⑫	Bypass Condenser—.09 M. F. Double	4989-C	④⑥	Switch	4095
⑬	Compensating Condenser (Part of Gang Assembly)		④⑦	Bypass Condenser—.015 M. F. (Double)	3973-H
⑭	Resistor—5,000 Ohms	3526	④⑧	Tone Control	03140
⑮	Condenser—.00011 M. F.	4519		Mica (Compensating Condenser)	3473
⑯	Resistor—13,000 Ohms	3766		Insulating Washer (Compensating Condenser)	3500
⑰	Condenser—.00011 M. F. }	3772-C		Rubber Washer (Chassis Mtg.)	5189
⑱	Compensating Condenser }			Grommet (R. F. Transformer Shield)	3747
⑲	First I. F. Transformer	03091		Rubber Washer (Tuning Conden- ser Mtg.)	3914
⑳	Compensating Condenser }	03051		Rubber Washer (Tuning Conden- ser Mtg.)	3915
㉑	Fixed Condenser—.00011 }			Rubber Washer (Tuning Conden- ser Mtg.)	3916
㉒	Second I. F. Transformer	03092		Spring (Dial Knobs)	4147
㉓	Bypass Condenser—.05 M. F.	3615-L		Grid Clip	4897
㉔	Compensating Condenser }	03061		Five Prong Socket	4956
㉕	Condenser—.00005 }			Speaker Socket	4957
㉖	Bypass Condenser—.5	3583		Knobs (Dial)	03196
㉗	Resistor—50,000 Ohms	4237		Tube Socket (Rectifier Tube)	5026
㉘	Condenser—.0005	3910		Steel Washer (Chassis Mtg.)	5058
㉙	Condenser—.00025	3082		Knob (Switch, Tone, Volume)	4290-A
㉚	Detector R. F. Choke	03086		Volume Control Insulator	4092
㉛	Resistor—250 Ohms and Con- denser—.09 M. F.	4989-G		Volume Control Insulator	4286
㉜	Resistor—250,000 Ohms	4410			
㉝	Resistor—100,000 Ohms	4411			
㉞	Condenser—.01 M. F.	3903-J			
㉟	Resistor—250,000 Ohms	4410			
㊱	Condenser—.25 M. F.	4264			

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