

PHILCO RADIO & TELEVISION CORP.

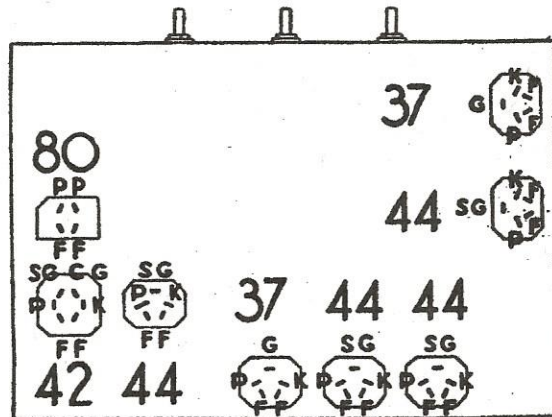
MODEL 43 AC  
Socket  
Voltage  
Values

The Philco Radio of the 43 Series is an eight tube superheterodyne short wave and broadcast wave combination, employing the high efficiency 6.3 volt filament tubes, automatic volume control and pentode output. The same superheterodyne circuit is employed for both short wave and broadcast wave ranges, with an intermediate frequency of 450 kilocycles. Four tuning ranges on the dial are provided, these being controlled by the wave change switch. The ranges are as follows:

- Position 1..... 550 KC to 1400 KC
- Position 2..... 1.4 MC to 3.4 MC
- Position 3..... 3.3 MC to 9.0 MC
- Position 4..... 8.5 MC to 20.0 MC

The chassis is made in two different types, one known as the 121 code, employing a single dynamic speaker, and the other known as the 221 code, employing twin dynamic speakers. These code numbers appear on the radio chassis as a part of the model number. Chassis of one code are not interchangeable with those of another. The power consumption of the various models is as follows:

Chassis	Volts	Cycles	Watts
43-121	115	50-60	65
43-221	115	50-60	88
43-121	115	25-40	67
43-121	230	50-60	65
43-221	230	50-60	88



F—Filament P—Plate SG—Screen Grid CG—Control Grid K—Cathode

Fig. 1—Tube Sockets, Under Side of Chassis

Caution:—Never connect the chassis to the power supply unless the speakers are connected and all tubes are in place.

Table 1—Tube Socket Data\*—A. C. Line Voltage 115 Volts

Type	Circuit	Filament Volts F to F	Plate Volts P to K	Screen Grid Volts SG to K	Control Grid Volts CG to K	Cathode Volts K to F
37	Osc.	6.3	175	—	6.	—
44	1st Det.	6.3 5.75	235 286	80 157	3.0 23	12.0 23
44	1st I. F.	6.3 5.75	235 212	80 182	.2	3.0 7
44	2nd I. F.	6.3 5.75	235 319	80 184	3.5	3.5 74
37	2nd Det.	6.3 5.75	0 ✓	—	0 ✓	0
44	1st Audio	6.3 5.75	45 42	45 89	.2	2.0 4
42	Output	6.3 5.75	215 510	240 330	.4 165	15.0 0
80	Rectifier	5.0 5.75	350/Plate			

\*All of the above readings were taken from the under side of the chassis, using test prods and leads with a suitable A. C. voltmeter for filament voltages and a high resistance, multi-range D. C. voltmeter for all other readings. †Volume control at maximum and switch and station selector set for 550 KC. Readings taken with a radio set tester and plug-in adaptor will not be satisfactory.

Table 2—Power Transformer Data

Terminals	A. G. Volts	Circuit	Color
1-2	105 to 125	Primary	White
3-5	6.3	Filaments	Black
6-7	5.0	Filament of 80	Blue
8-10	685	Plates of 80	Yellow
4	....	Center Tap of 3-5	Black Yellow Tracer
9	....	Center Tap of 8-10	Yellow Green Tracer

Table 3—Resistor Data

No. on Figs.	Power (Watts)	Resistance (ohms)	COLOR		
			Body	Tip	Dot
38 (2) (4) 48	...	500	Flexible Wire		
(1) 9	.5	1,000	Brown	Black	Red
(6) 5	.5	2,000	Red	Black	Red
(8) 8	.5	3,000	Orange	Black	Red
58 (2) (2) 54	1.	5,000	Green	Black	Red
(2) 82	...	5,620	Long Tubular		
(2) 26	.5	8,000	Gray	Black	Red
(7) 7	1.	10,000	Brown	Black	Orange
(7) 73	.5	10,000	Brown	Black	Orange
60 (2) (2) 64	3.	13,000	Brown	Orange	Orange
(4) 44	.5	25,000	Red	Green	Orange
(2) 2	.5	70,000	Violet	Black	Orange
22 (2) (2) 52	.5	99,000	White	White	Orange
(2) (2) 63	.5	490,000	Yellow	White	Yellow
30 (2) (2) 61	.5	1,000,000	Brown	Black	Green
(2) 15	.5	2,000,000	Red	Black	Green

Model 43