PHILCO

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Service Bulletin—No. 129-B

Models 91 and 14 Series

The Philco Radio of the 91 and 14 series is a nine-tube superheterodyne receiver combining standard broadcast, police and airplane reception and employs the high efficiency 6.3 volt filament tubes, automatic volume control, bass compensating tone control, shadow tuning, and push-pull pentode output. The chassis is made in two different types, one known as the 126 type, employing a single dynamic speaker, and the other known as the 226 type, employing twin dynamic speakers. These type numbers appear on the radio chassis as a part of the model number. Chassis of one type are not interchangeable with those of another. The intermediate frequency used in adjusting the superheterodyne circuit of the 91 and 14 series is 260 kilocycles. The power consumption of the various models is as follows: Single Speaker models, 90 watts; Twin Speaker models, 95 watts.

Table 1—Tube Socket Data*
Power Line Voltage 115 Volts

Circuit	R. F.	Det. Osc.	I. F.	Det. Rect.	Det. Amp.	Audio	Output	Output	Rect.
Type Tube	**44**	**36**	**44**	**37**	**37**	**37**	**42**	**42**	**80**
Filament Volts—F to F	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	5.0
Plate Volts—F to K	200	250	250	0	60	100	240	240	310
Screen Grid Volts—SG to K	50	80	85	...	...	...	250	250	...
Control Grid Volts—CG to K	.6	10	.2	.2	.2	0	15	15	...
Cathode Volts—K to F	25	10	5	2	2	2	15	15	...

* All of the above readings were taken from the underside 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 station selector turned to low frequency end. Readings taken with a radio set tester and plug in adapter will not be satisfactory.

Table 2—Power Transformer Data

Terminal	A.C. Volts	Circuit	Color
1- 2	105 to 125	Primary	White
3- 5	6.3	Filament	Black
6- 7	5.0	Filament 80	Blue
8-10	670	Plates of 80	Yellow
4	...	Center Tap of 3-5	Black—Yellow Tracer
9	...	Center tap of 8-10	Yellow—Green Tracer

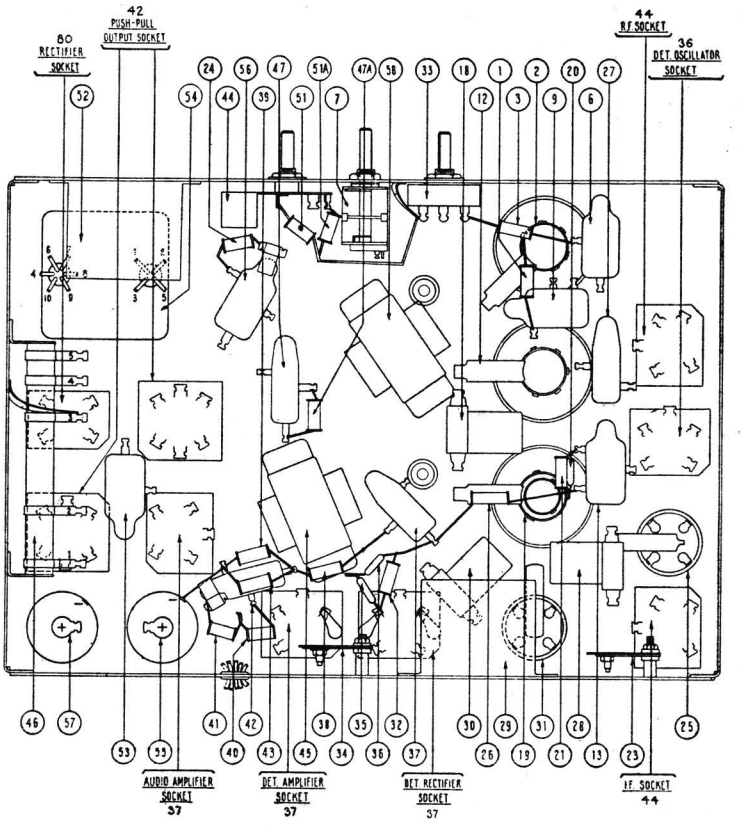

Fig. 1—Parts Diagram

Terminal Arrangement of Tube Sockets Viewed from Under Side of Chassis

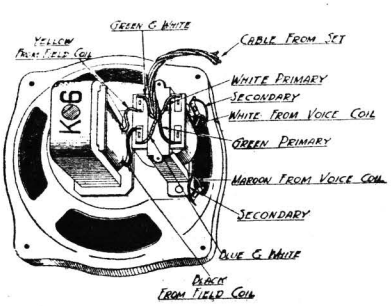

Fig. 2—Speaker Connections—126 Code

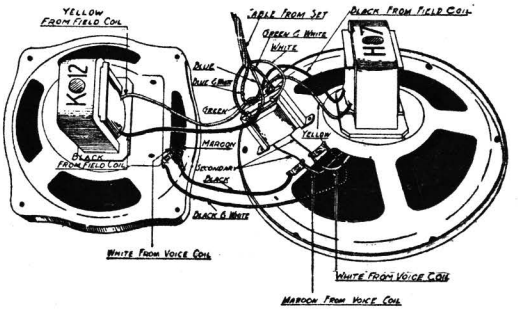

Fig. 3—Speaker Connections—226 Code

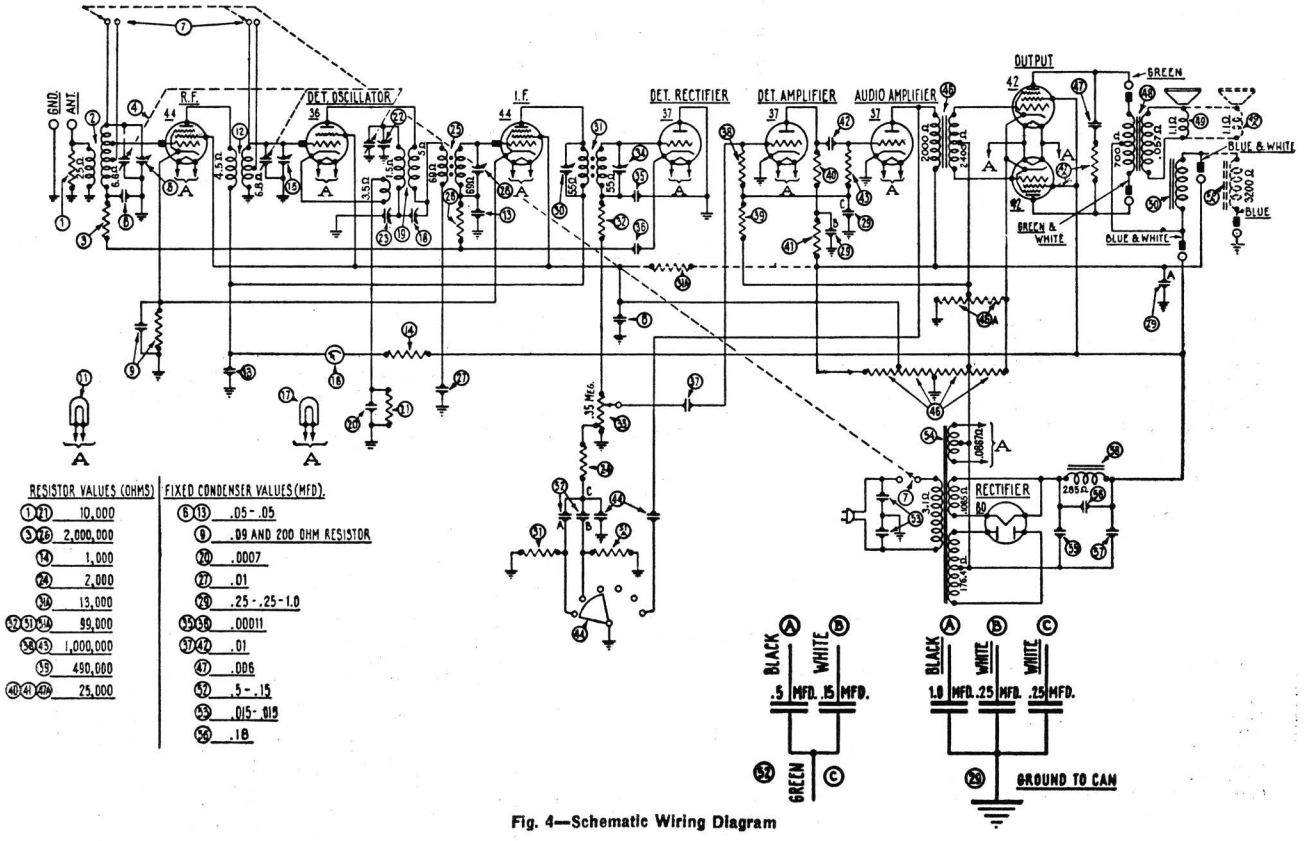

Fig. 4—Schematic Wiring Diagram

REPLACEMENT PARTS FOR MODELS 91 AND 14 SERIES

No. on Figs.	Description	Part No.	List Price
(1)	Resistor (Brown-Black-Orange)	4412	.20
(2)	R.F. Transformer	32-1069	.60
(3)	Resistor (Red-Black-Green)	5872	.20
(4)	Tuning Condenser Assembly	04790	4.25
(5)	Compensating Cond. (R.F.) Part of (4)	.....	....
(6)	Condenser	3615-AM	.20
(7)	"On-Off" and Frequency Switch	42-1002	1.00
(9)	Condenser (and Resistor)	6287-C	.20
(11)	Pilot Lamp (Philco Scale)	6608	.14
(12)	Detector Transformer	32-1070	.40
(13)	Condenser	3615-AJ	.25
(14)	Resistor (Brown-Black-Red)	5837	.20
(15)	Compensating Cond. (Detector) Part of (4)	.....	....
(16)	Tuning Meter	6497	2.25
(17)	Pilot Lamp (Tuning Meter)	6608	.14
(18)	Compensating Cond. (1st I.F. Primary)	04000-M	.16
(19)	Oscillator Coil	05985	.40
(20)	Condenser (White and Yellow)	4520	.20
(21)	Resistor (Brown-Black-Orange)	4412	.20
(22)	Comp. Cond. (High Freq.) Part of (4)	.....	....
(23)	Compensating Condenser (Low Freq.)	04000-B	.18
(24)	Resistor (Red-Black-Red)	6984	.20
(25)	First I.F. Transformer	04319	.75
(26)	Resistor (Red-Black-Green)	5872	.20
(27)	Condenser	3903-AE	.14
(28)	Comp. Cond. (1st I.F. Secondary)	04000-M	.16
(29)	Filter Condenser Bank	04830	.75
(30)	Comp. Cond. (2d I.F. Primary)	04000-M	.16
(31)	Second I.F. Transformer	04320	.75
(32)	Resistor (White-White-Orange)	4411	.20
(33)	Volume Control	8054	1.25
(34)	Comp. Cond. (2nd I.F. Secondary)	04000-M	.16
(35)	Condenser (Blue and Golden Yellow)	4519	.18
(36)	Condenser (Blue and Golden Yellow)	4519	.18
(37)	Condenser	3903-P	.20
(38)	Resistor (Brown-Black-Green)	4409	.20
(39)	Resistor (Yellow-White-Yellow)	4517	.20
(40)	Resistor (Red-Green-Orange)	4516	.20
(41)	Resistor (Red-Green-Orange)	4516	.20
(42)	Condenser	3903-P	.20
(43)	Resistor (Brown-Black-Green)	4409	.20
(44)	Tone Control	06698	.55
(45)	Push-Pull Input Transformer	6064	2.25
(46)	B.C. Resistor (Wire Wound)	6702	.40
(46)a	B.C. Resist. (Wire Wound) Twin Speaker	6808	.18
(47)	Condenser	7625-B	.12
(47)a	Resistor (Red-Green-Orange)	4516	.20
(48)	Push-Pull Output Trans. (Sing. Speaker)	2585	1.35
	Push-Pull Output Trans. (Twin Speaker)	2565	1.40
(49)	Voice Coil and Cone Assembly (K-6 and K-12)	02823	.45
(49)a	Voice Coil and Cone Assembly (H-7) Twin Speaker Model	02807	.65
(50)	Speaker Field Assembled with Pot (K-6 and K-12)	02803	2.25
(50)a	Speaker Field Assembled with Pot (H-7) Twin Speaker Model	02803	2.25
(51)	Resistor (White-White-Orange)	4411	.20
(51)a	Resistor (White-White-Orange)	4411	.20
(52)	Condenser Bank	06713	.45
(53)	Condenser (Double)	3793-E	.20
(54)	Power Trans. (50-60 cycles) Sing. Speak'r	6554	4.75
	Power Trans. (25-40 cycles) Sing. Speak'r	6555	7.25
	Power Trans. (50-60 cycles) Twin Speak'r	6804	5.50
	Power Trans. (25-40 cycles) Twin Speak'r	6805	7.50
(55)	Electrolytic Cond. (6 MFD) Sing. Sp'ker	4916	1.75
	Electrolytic Cond. (8 MFD) Twin Sp'ker	7464	1.25
(56)	Condenser	4989-T	.20
(57)	Electrolytic Cond. (6 MFD) Sing. Sp'ker	4916	1.75
	Electrolytic Cond. (8 MFD) Twin Sp'ker	7464	1.25
(58)	Filter Choke	4819	1.40
	Tube Shields	8005	.05
	Knob (Large)	03063	.08
	Knob (Medium)	03064	.06
	Knob (Small)	03437	.02
	Four Prong Socket	5026	.08
	Five Prong Socket	4956	.10
	Six Prong Socket	6417	.10
	Dial, Complete	04832	.40
	Bezel	6418	.20

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