

Philco Radio & Television Corp.

Model: 91

Chassis:

Year: Pre March 1934

Power:

Circuit:

IF:

Tubes:

Bands:

Resources

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PHILCO RADIO & TELEVISION CORP.

MODEL 14, 91
(126-226)
Chassis
Speaker
Voltage

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	42	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
0		Center tap of 8-10	Tracer
			Yellow—Green
			Tracer

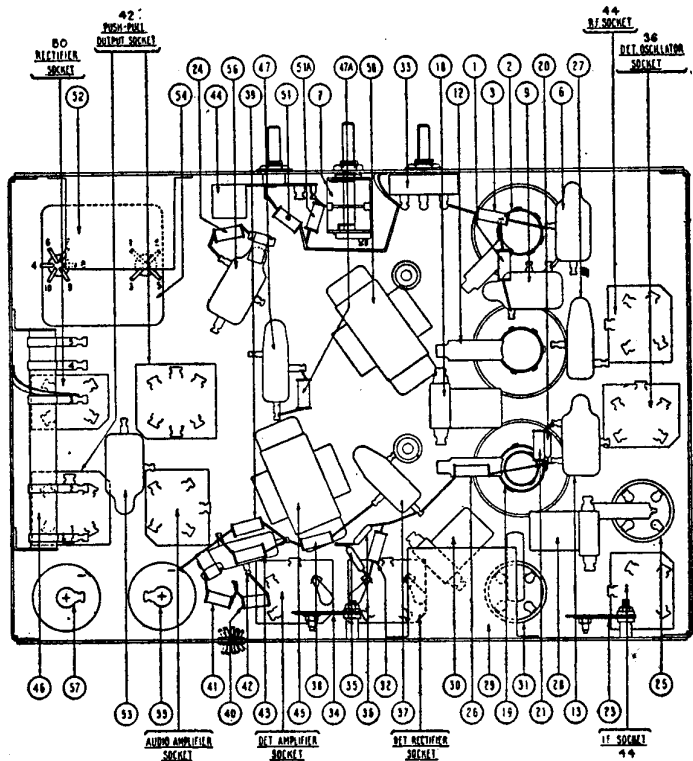


Fig. 1—Parts Diagram



44 and 36 Sockets



37 Sockets



42 Sockets



80 Sockets

Terminal Arrangement of Tube Sockets Viewed from Under Side of Chassis

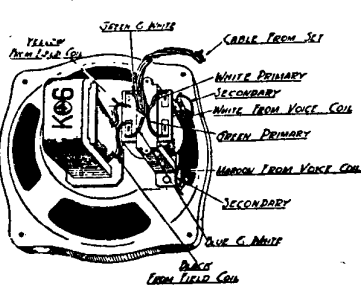


Fig. 2—Speaker Connections—126 Code

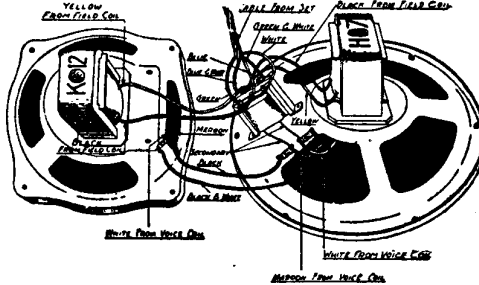


Fig. 3—Speaker Connections—226 Code

Model 91—

Key No. in Wiring Dia.	Resistance in Ohms	
	Primary	Secondary
(2)	Inner 24	
(12)	Outer 3.3	6.6
(19)	Inner 4	5.8
(25)	Outer 5.2	3.7
(31)	67	67
(45)	2000	55
(48)	700	2400
(50)	3275	
(52)	3275	
(54) Single Speaker Models	3.1	.09 Fila. 11 80 Fila.
(54) Twin Speaker Models	2.77	176. 80 Plate .09 Fila. 11 80 Plate
(58)	285	128. 80 Plate

In run number 1, the (15,000 ohm) resistor (2) part number 6208 was changed to new resistor (10,000 ohms) part number 4412. Condenser (31) part number 3615AM was changed to new condenser part number 3615AF. A terminal block part number 03103 was added. This terminal block was mounted on the condenser (48) part number 4989K or 4989T.

MODEL 14, 91

(126-226)

Schematic

Parts List

PHILCO RADIO & TELEVISION CORP.

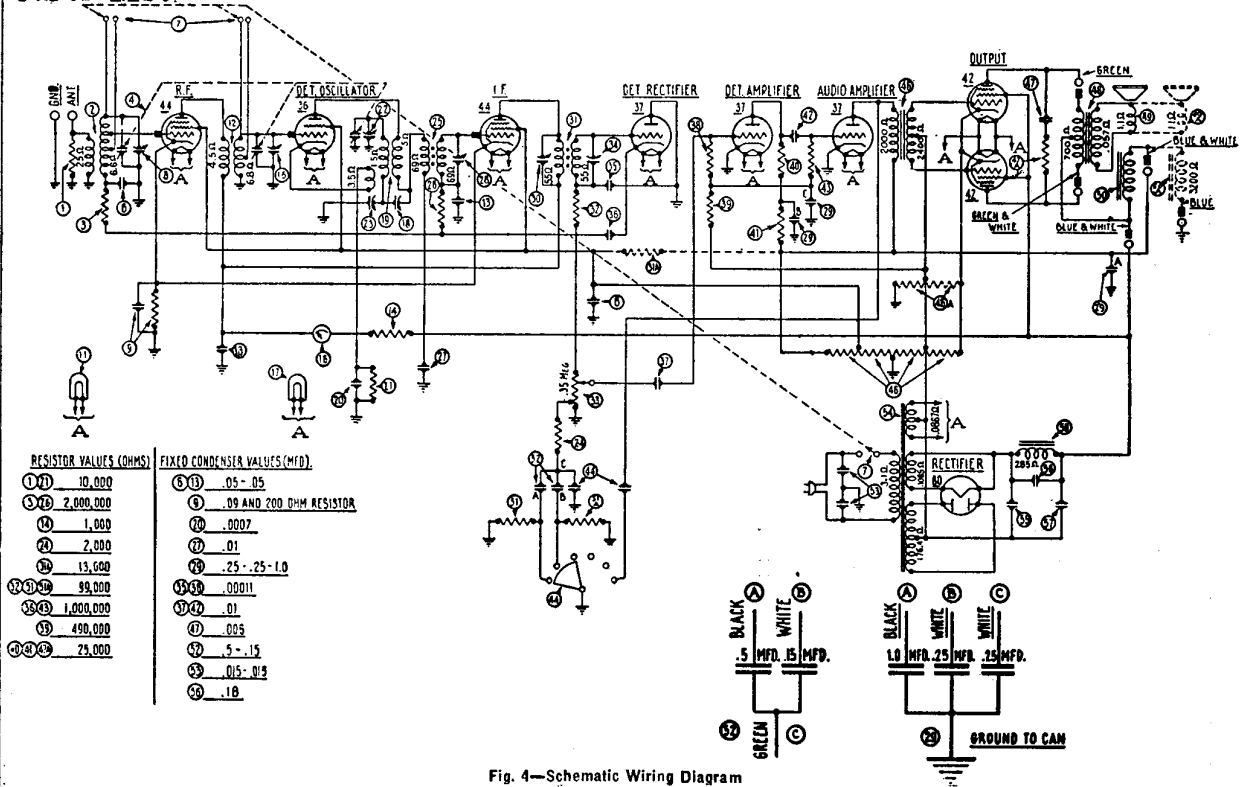


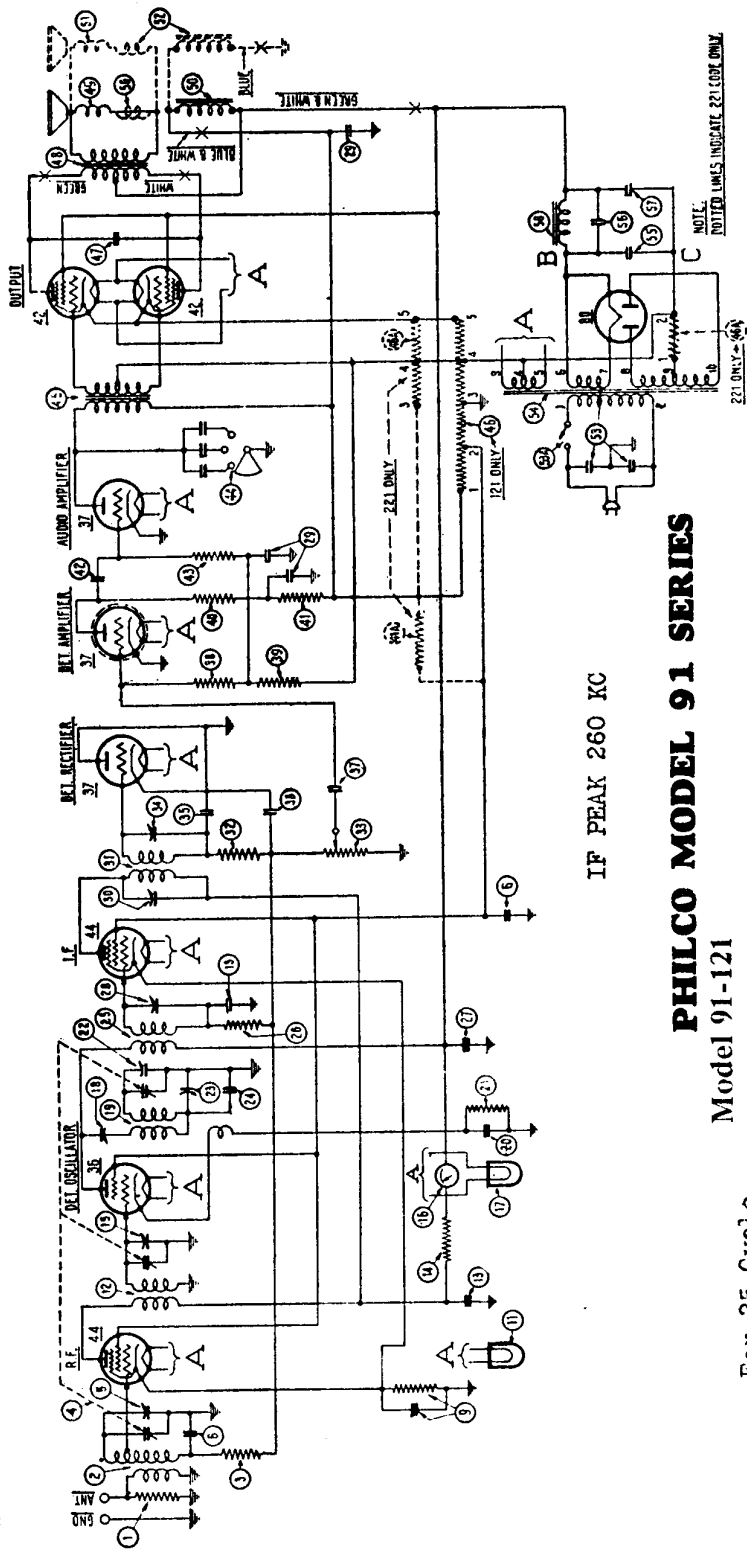
Fig. 4—Schematic Wiring Diagram

RESISTOR VALUES (OHMS)		FIXED CONDENSER VALUES (MFD)	
①⑦	10,000	⑧⑬	.05 - .05
②⑧	2,000,000	⑨	.09 AND 200 OHM RESISTOR
⑩	1,000	⑭	.0007
⑪	2,000	⑮	.01
⑫	15,000	⑯	.25 - .25 - 1.0
⑬⑭	99,000	⑰⑱	.00011
⑲⑳	1,000,000	⑲⑳	.01
㉑	490,000	㉑	.005
㉒⑳	25,000	㉒	5 - .15
		㉓	.015 - .015
		㉔	.18

No. on Figs.	Description	Part No.	List Price	No. on Figs.	Description	Part No.	List Price
①	Resistor (Brown-Black-Orange)	4412	.20	⑬	Resistor (Brown-Black-Green)	4409	.20
②	R.F. Transformer	32-1069	.60	⑭	Tone Control	06698	.55
③	Resistor (Red-Black-Green)	5872	.20	⑮	Push-Pull Input Transformer	6064	2.25
④	Tuning Condenser Assembly	04790	4.25	⑯	B.C. Resistor (Wire Wound)	6702	.40
⑤	Compensating Cond. (R.F.) Part of ④			⑯a	B.C. Resist. (Wire Wound) Twin Speaker	6808	.18
⑥	Condenser	3615-AM	.20	⑰	Condenser	7625-B	.12
⑦	"On-Off" and Frequency Switch	42-1002	1.00	⑰a	Resistor (Red-Green-Orange)	4516	.20
⑧	Condenser (and Resistor)	6287-C	.20	⑱	Push-Pull Output Trans. (Sing. Speaker)	2585	1.35
⑨	Pilot Lamp (Philco Scale)	6608	.14	⑱	Push-Pull Output Trans. (Twin Speaker)	2565	1.40
⑩	Detector Transformer	32-1070	.40	⑲	Voice Coil and Cone Assembly (K-6 and K-12)	02823	.45
⑪	Condenser	3615-AJ	.25	⑲a	Voice Coil and Cone Assembly (H-7) Twin Speaker Model	02807	.65
⑫	Resistor (Brown-Black-Red)	5837	.20	⑳	Speaker Field Assembled with Pot (K-6 and K-12)	02803	2.25
⑬	Compensating Cond. (Detector) Part of ④			⑳a	Speaker Field Assembled with Pot (H-7) Twin Speaker Model	02803	2.25
⑭	Tuning Meter	6497	2.25	㉑	Resistor (White-White-Orange)	4411	.20
⑮	Pilot Lamp (Tuning Meter)	6608	.14	㉑a	Resistor (White-White-Orange)	4411	.20
⑯	Compensating Cond. (1st I.F. Primary)	04000-M	.16	㉒	Condenser Bank	06713	.45
⑰	Oscillator Coil	05985	.40	㉓	Condenser (Double)	3793-E	.20
⑱	Condenser (White and Yellow)	4520	.20	㉔	Power Trans. (50-60 cycles) Sing. Speak'r	6554	4.75
⑲	Resistor (Brown-Black-Orange)	4412	.20	㉔	Power Trans. (25-40 cycles) Sing. Speak'r	6555	7.25
㉑	Comp. Cond. (High Freq.) Part of ④			㉔	Power Trans. (50-60 cycles) Twin Speak'r	6804	5.50
㉒	Compensating Condenser (Low Freq.)	04000-B	.18	㉔	Power Trans. (25-40 cycles) Twin Speak'r	6805	7.50
㉓	Resistor (Red-Black-Red)	6984	.20	㉕	Electrolytic Cond. (6 MFD) Sing. Sp'ker	4916	1.75
㉔	First I.F. Transformer	04319	.75	㉕	Electrolytic Cond. (8 MFD) Twin Sp'ker	7464	1.25
㉕	Resistor (Red-Black-Green)	5872	.20	㉕	Condenser	4989-T	.20
㉖	Condenser	3903-AE	.14	㉖	Electrolytic Cond. (6 MFD) Sing. Sp'ker	4916	1.75
㉗	Comp. Cond. (1st I.F. Secondary)	04030-M	.16	㉖	Electrolytic Cond. (8 MFD) Twin Sp'ker	7464	1.25
㉘	Filter Condenser Bank	04830	.75	㉗	Filter Choke	4819	1.40
㉙	Comp. Cond. (2d I.F. Primary)	04000-M	.16	㉗	Tube Shields	8005	.05
㉚	Second I.F. Transformer	04320	.75	㉘	Knob (Large)	03063	.08
㉛	Resistor (White-White-Orange)	4411	.20	㉘	Knob (Medium)	03064	.06
㉜	Volume Control	8054	1.25	㉘	Knob (Small)	03437	.02
㉝	Comp. Cond. (2nd I.F. Secondary)	04000-M	.16	㉙	Four Prong Socket	5026	.08
㉞	Condenser (Blue and Golden Yellow)	4519	.18	㉙	Five Prong Socket	4956	.10
㉞	Condenser (Blue and Golden Yellow)	4519	.18	㉙	Six Prong Socket	6417	.10
㉟	Condenser	3903-P	.20	㉚	Dial, Complete	04832	.40
㊱	Resistor (Brown-Black-Green)	4409	.20	㉚	Bezel	6418	.20
㊱	Resistor (Yellow-White-Yellow)	4517	.20				
㊲	Resistor (Red-Green-Orange)	4516	.20				
㊲	Resistor (Red-Green-Orange)	4516	.20				
㊳	Condenser	3903-P	.20				

PHILCO RADIO & TELEVISION CORP.

MODEL 91
(121-221)
Schematic
Changes



IF PEAK 260 KC

PHILCO MODEL 91 SERIES

Model 91-121

For 25 Cycle

use ⑤ power transformer 6555. Change ⑤ electrolytic condenser (6 Mfd.) 4916 to 10 Mfd., 5142. Change ⑤ electrolytic condenser (8 Mfd.) 4916 to 14 Mfd. 5725. Change ⑤ condenser (.18 Mfd.) 4989K to .5 Mfd., 05150. Change ⑥ resistor (25,000 ohms) 4516 to 51,000 Ohms, 4518. The physical positions of ⑤ and ⑥ are interchanged, although their electrical connections remain the same.

Model 91-221

For 25 Cycle

use ⑥ power transformer 6805. Change ⑥ A. B. C. Resistor 6807 to 6808. Change ⑥ electrolytic condenser (8 Mfd.) 6707 to 10 Mfd. 5142. Change ⑥ electrolytic condenser (8 Mfd.) 6706 to 14 Mfd. 5725. Change ⑥ resistor (25,000 ohms) 4516 to 51,000 ohms, part 4518. Change ⑥ condenser (.18 Mfd.) 4989K to .5 Mfd. and .75 Mfd. 05213. The .5 Mfd. section takes the place of 4989K and the 75 section (white wire) is connected to the blue and white lead of the speaker cord. The physical positions of ⑥ and ⑦ are interchanged, although their electrical connections remain the same.

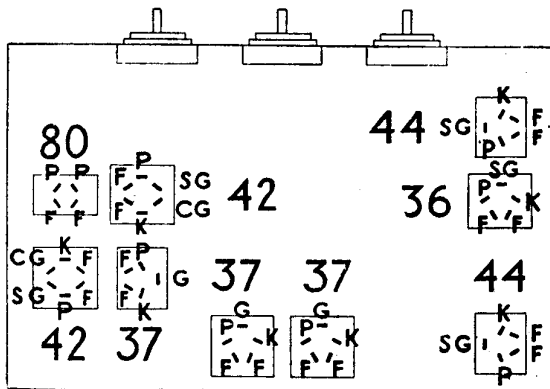
**MODEL 91
(121-221)**

PHILCO RADIO & TELEVISION CORP.

Socket-Data

The Philco Radio of the 91 series is a nine tube superheterodyne, employing the high efficiency 6.3 volt filament tubes, automatic volume control, shadow tuning, and push-pull pentode output. The chassis is made in two different types, one known as the 121 type, employing a single dynamic speaker and the other known as the 221 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 series is 260 kilocycles. The power consumption of the various models is as follows:

Model	Volts	Cycles	Watts
91-121	115	50-60	90
91-221	115	50-60	95
91A-121	115	25-40	92
91A-221	115	25-40	97
91E-121	230	50-60	90
91E-221	230	50-60	95



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

Fig. 1—Tube Sockets

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

Type	Tube	Filament Volts	Plate Volts	Screen Grid Volts	Control Grid Volts	Cathode Volts
44	R.F.	6.3	200	50	.6	25
36	Det.—Osc.	6.3	250	80	10	10
44	I.F.	6.3	250	85	.2	5
37	Det.—Rect.	6.3	02	2
37	Det.—Ampl.	6.3	602	2
37	Audio	6.3	100	...	0	2
42	Output	6.3	240	250	15	15
42	Output	6.3	240	250	15	15
80	Rectifier	5.0	310/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 multi-range D.C. voltmeter for all other readings. Volume control at maximum and station selector turned to low frequency end.

Table 2—Power Transformer Data

Terminals	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

Table 3—Resistor Data

Nos. on Figs. 4 & 5	Resistance (ohms)	Power (Watts)	Terminals	Color		
				Body	Tip	Dot
Ⓞ Single Speaker	900	...	1-2	LONG	TUBULAR	
	2700	...	2-3			
	95	...	3-4			
	205	...	4-5			
	136	...	1-2			
Ⓞa Twin Speaker	Blank	...	2-3	LONG	TUBULAR	
	85	...	3-4			
	205	...	4-5			
Ⓞ1	1,000	.5	...	Brown	Black	Red
Ⓞ2	10,000	.5	...	Brown	Black	Orange
Ⓞ3	15,000	.5	...	Brown	Green	Orange
Ⓞ4	25,000	.5	...	Red	Green	Orange
Ⓞ5	13,000	1.	...	Brown	Orange	Orange
Ⓞ6	99,000	.5	...	White	White	Orange
Ⓞ7	490,000	.5	...	Yellow	White	Yellow
Ⓞ8	1,000,000	.5	...	Brown	Black	Green
Ⓞ9	1,000,000	1.	...	Brown	Black	Green

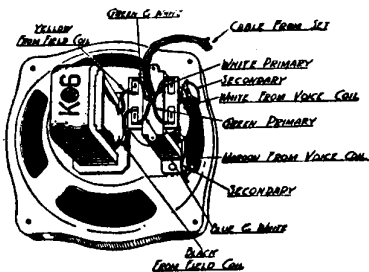


Fig. 2—Speaker Connections—121 Code

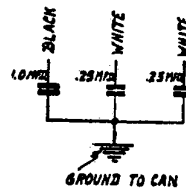


Fig. 3—Internal Connections Filter Condenser

Model 91 Series

PHILCO RADIO & TELEVISION CORP.

MODEL 91
(121-221)
Chassis
Speaker

PHILCO MODEL 91 SERIES

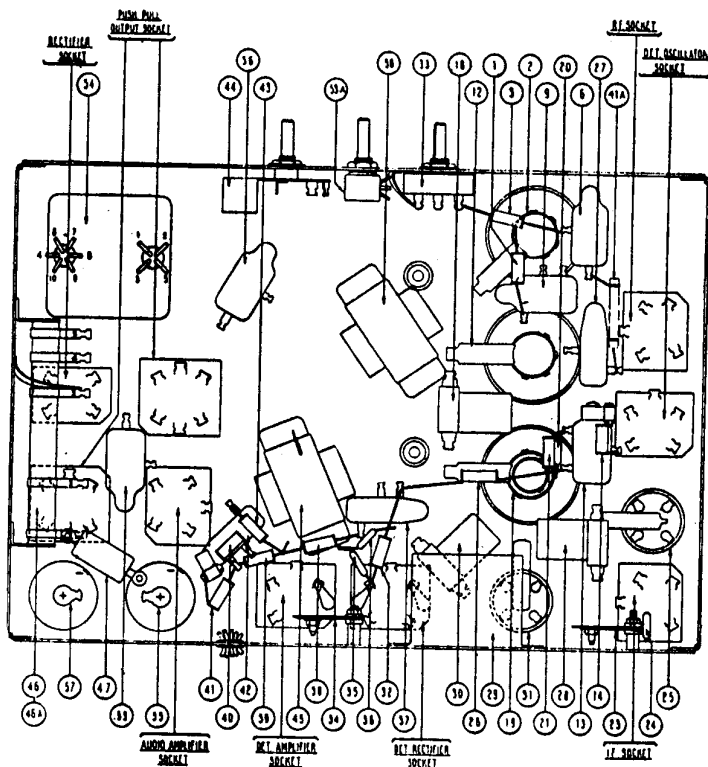


Fig. 5—Parts Diagram

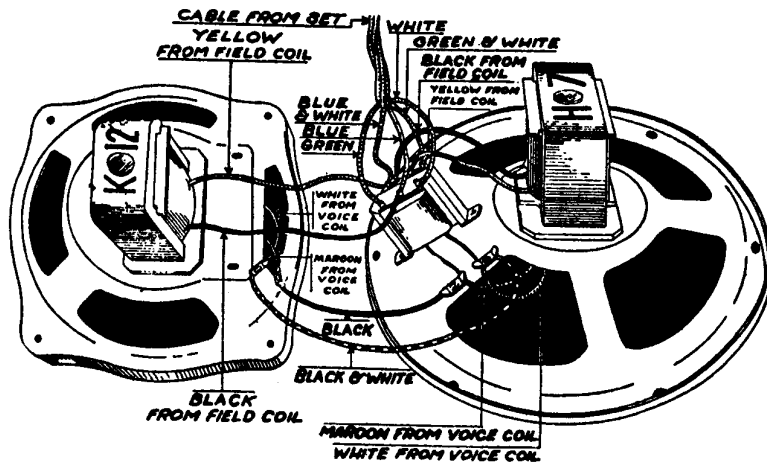


Fig. 6—Speaker Connections—221 Code

ADJUSTMENT OF MODEL 91 SERIES

These receivers are accurately adjusted at the factory prior to shipment. Under normal conditions it will never be necessary to re-adjust the compensating condensers. If for any reason such adjustment should be required, it should not be attempted without first receiving the proper instruction and equipment from your distributor. The Philco Model 095 Oscillator has been especially designed for this work, and will be found the most inexpensive and most reliable for the purpose.

Model 91 chassis with pickup and turntable is chassis 23-X shown on page 466-Z-8

MODEL 91

(121-221)

Parts List

PHILCO RADIO & TELEVISION CORP.

REPLACEMENT PARTS FOR MODEL 91 SERIES

①	Resistor (10,000 ohms)	4412	④⑤	Condenser (.01 Mfd.)	3903-R
②	R. F. Transformer	04317	④⑥	Resistor (1,000,000 ohms)	4409
③	Resistor (1,000,000 ohms)	4409	④⑦	Tone Control	04787
④	Tuning Condenser (50-60 cycles)	04790	④⑧	Push-pull Input Transformer	6064
	Tuning Condenser (25-40 cycles)	04791	④⑨	B. C. Resistor—Single Speaker	6071
⑤	Compensating Condenser—R. F.—part of tuning condenser assembly		④⑩	B. C. Resistor—Twin Speaker	6807
⑥	Condenser (.05 Mfd. Double)	3615-AM	④⑪	Condenser (.001 Mfd.)	6773
⑦	Condenser (.15 Mfd. and 200 ohm resistor)	6287-C	④⑫	Push-pull output transformer— single speaker Models	2585
⑧	Pilot Lamp—Dial	6608		Push-pull output transformer— Twin speaker Models	2565
⑨	Detector Transformer	04409	④⑬	Voice coil and cone assembly (K-6 and K-12)	02823
⑩	Condenser (.05 Mfd. Double)	3615-AJ	④⑭	Speaker Field Assembled with pot (K-6) single speaker Models	02803
⑪	Resistor (1,000 ohms)	5837		Speaker Field Assembled with pot (H-7) Twin speaker Models	02770
⑫	Compensating Condenser—De- tector—Part of tuning con- denser assembly		④⑮	Voice Coil and Cone Assembly —(H-7) Twin speaker Models	02807
⑬	Tuning meter	6477	④⑯	Speaker Field assembled with pot (K-12) Twin speaker Models	02803
⑭	Pilot Lamp—Tuning meter	6608	④⑰	Condenser (.015 Mfd. Double)	3793-E
⑮	Compensating condenser— First I. F. Primary	04000-M	④⑱	On-off Switch	6498
⑯	Oscillator Coil	04408	④⑲	Power Transformer (50 - 60 cycles) single speaker	6554
⑰	Condenser (700 Mmf.) (White and Yellow)	4520		Power Transformer (25 - 40 cycles) single speaker	6555
⑱	Resistor (15,000 ohms)	6208		Power Transformer (50 - 60 cycles — 230 volts) single speaker	6556
⑲	Compensating Condenser— High — Frequency — part of tuning Condenser Assembly			Power Transformer (50 - 60 cycles) Twin speaker	6557
⑳	Compensating Condenser— Low Frequency	04496		Power Transformer (25 - 40 cycles) Twin speaker	6558
㉑	Condenser (410 Mmf.) (Yellow and Orange) Assembled with L. F. Condenser	04496	④㉑	Power Transformer (50 - 60 cycles — 230 volts) Twin speaker	6559
㉒	First I. F. Transformer	04319	④㉒	Electrolytic Condenser (6 Mfd.) single speaker	4916
㉓	Resistor (1,000,000 ohms)	4414		Electrolytic Condenser (8 Mfd.) Twin speaker	6707
㉔	Condenser (.01 Mfd.) Single Speaker	3903-AF	④㉓	Condenser (.18 Mfd.)	4989-K
	Condenser (.01 Mfd.) Twin Speaker	3903-AE	④㉔	Electrolytic Condenser (6 Mfd.) Single Speaker	4916
㉕	Compensating condenser— First I. F. secondary	04000-M		Electrolytic Condenser (8 Mfd.) Twin Speaker	6706
㉖	Filter condenser (2-.25, 1.0 Mfd.)	04830	④㉕	Filter Choke	4819
㉗	Compensating Condenser— Second I. F. Primary	04000-M		Tube Shield (Large)	04792
㉘	Second I. F. Transformer	04320		Tube Shield (Small)	5387
㉙	Resistor (99,000 ohms)	4411		Shield Plate	03646
㉚	Volume Control	6499		Knob (Large)	03063
㉛	Compensating Condenser— Second I. F. Secondary	04000-M		Knob (Medium)	03064
㉜	Condenser (110 Mmf.) (Blue and Golden Yellow)	4519		Knob (Small)	03437
㉝	Condenser (110 Mmf.) (Blue and Golden Yellow)	4519		Knob Spring (Large)	5262
㉞	Condenser (.01 Mfd.)	3903-R		Knob Spring (Small)	4147
㉟	Resistor (1,000,000 ohms)	4409			
㊱	Resistor (490,000 ohms)	4517			
㊲	Resistor (25,000 ohms)	4516			
㊳	Resistor (25,000 ohms)	4516			
㊴	Resistor (13,000 ohms)	3766			

PHILCO RADIO & TELEVISION CORP.

SEE INDEX

FOR FURTHER INFORMATION ON THESE RECEIVERS,

Models 38 and 38-A

MODEL 38, 38-A
 MODEL 71
 MODEL 89-126-126-B
 MODEL 19-122-126-126B
 MODEL 91, 14, 91-122
 MODEL 91-A, 121
 Changes

The following additional list prices should be included in the Replacement Parts list:

No. on Figs.	Description	Part No.	List Price
①	Volume Control	33-5017	\$0.72
②	Wave Band Switch	42-1030	.48
③	Antenna Transformer	32-1208	.48
④	Tuning Condenser Assembly	31-1076	2.70
⑤	Oscillator Transformer	32-1209	.78
⑥	1st I. F. Transformer	32-1251	.60
⑦	2nd I. F. Transformer	32-1252	.60
⑧	Voice Coil and Cone Assembly	36-3014	.60
⑨	Switch ("On-Off"; Battery)	42-1040	.54
	Battery Cable Assembly (including Multi-Plug)	38-5265	.96
	Station Selector Dial Scale	27-5019	.14

Note: The above list prices are effective September 15, 1933.

Model 71 Series

To correct typographical error,—

Change Part No. 02761 ②, Speaker Field and Bucking Coil assembled with Pot (K-7)—(single speaker Models), to Part No. 02741.

Change Part No. 02762 ②, Speaker Field and Bucking Coil assembled with Pot—(K-9)—(twin speaker Models)—to Part No. 02761.

Model 89-126-126B

Model 19-122-126-126B

The following substitutions of electrolytic condensers are effective with current production:

Position	Code 122 (Model 19 only)	Code 126 and 126B (Models 89 and 19)
②	8095 (6 Mfd.), or 7464 (8 Mfd.)	30-2020, or 8166, or 4916, or 8095
③	8095 (6 Mfd.), or 7464 (8 Mfd.)	30-2021, or 8165, or 8095
		(These are all of 6.0 Mfd. capacity)

Effective with Run Number 5, Tuning Condenser ③ is superseded by Tuning Condenser, Part No. 31-1053. The complete Tuning Condenser Assembly ④ Part No. 06577, is superseded by Assembly, Part No. 31-1059.

The sub-base has been modified to accommodate the new condenser by change in location of mounting holes.

Effective with Run Number 6 for Model 89, and with Run Number 5 for Model 19, the red and black wires connecting Oscillator Transformer ⑤ and Compensating Condenser—(1st. I. F. Primary) ⑥ are reversed at the Compensating Condenser.

Part No. 3615BF Condenser is substituted for Part No. 3615E in ②.

Change Part No. 02761 ②, Speaker Field and Bucking Coil assembled with Pot (K-7), to Part No. 02741.

Effective with Run Number 6 for Model 89, and with Run Number 5 for Model 19, the red and black wires connecting Oscillator Transformer ⑤ and Compensating Condenser—(1st. I. F. Primary) ⑥ are reversed at the Compensating Condenser.

Models 91 and 14 Series

Make ② Oscillator Coil read Part No. 05983. This part has a list price of 65 cents.

Model 91-122

With Run number 2, Tuning Condenser Assembly ④ will be changed to Part No. 31-1051, immediately superseding Part No. 31-1015. In the substitution, it is necessary to remove three of Part No. W-453 mounting bolts and add three of Part No. W-729 mounting bolts; to add three Part No. 29-6060 spacers, six Part No. 3914 rubber washers, and three Part No. W-410 washers.

Model 91-A; Code 121

Effective with current production, this Model will have two Part No. 8022 (10 microfarad) Electrolytic Condensers.

MODEL 14-LZX, 91
23, 14, 19-
LZ, 19-LZX,
37

PHILCO RADIO & TELEVISION CORP.

Changes.

Changes in Models

It is unnecessary to alter receivers in your stock to comply with these changes.

The main purpose of these change bulletins is to enable you in ordering and supplying correct replacement parts to dealers. Mark up your copies of Service Bulletins to agree with the latest production. Your orders for parts from Philco will be filled as specified on your order.

This information is intended for your service department only.

Model 14LZX

In run number 3, the following changes were made to permit police and airplane broadcast reception; the antenna coil ② part number 05984 was changed to new coil part number 32-1069. The interstage coil ⑥ part number 05984 was changed to new coil part number 32-1070. The "on-off" switch (53A) part number 6498 was removed. A combined "on-off" and frequency change switch part number 42-1002 was added.

In run number 3, the Philco Three Purpose Antenna system was added. The set transformer part number 32-1003 was mounted in the radio chassis. The antenna transformer part number 32-1005 was mounted in the speaker cabinet. In the speaker cabinet the control box part number 06617 was changed to new control box part number 38-5056.

Models 91, 23 and 14

In run number 1, the (15,000 ohm) resistor ② part number 6208 was changed to new resistor (10,000 ohms) part number 4412. Condenser ⑥ part number 3615AM was changed to new condenser part number 3615AF. A terminal block part number 03103 was added. This terminal block was mounted on the condenser ⑥ part number 4989K or 4989T.

Models 19LZ-19LZX

In run number 4, model 19LZ; run number 3, model 19LZX; the following changes were made to permit police and airplane broadcast reception: The antenna coil ② part number 06619 was changed to new coil part number 32-1062. The interstage coil ⑥ part number 06662 was changed to new coil part number 32-1063. The "on-off" switch part number 6498 was removed. A combined "on-off" and frequency change switch part number 42-1017 was added.

In run number 4, model 19LZ; run number 3, model 19LZX; rubber insulators part number 4054 were added to both ends of the 10,000 ohm resistor connected between the tone control and the tap on the volume control.

In run number 3, model 19LZX, the Philco Three Purpose Antenna system was added. The set transformer part number 32-1003 was mounted in the chassis. The antenna transformer part number 32-1005 was mounted in the speaker cabinet. In the speaker cabinet the control box part number 06798 was changed to new control box part number 38-5057.

Model 37

The (99,000 ohm) resistor ② part number 4411 was changed to new resistor (490,000 ohms) part number 4517.

The (490,000 ohm) resistor ③ part number 4517 was changed to new resistor (240,000 ohms) part number 4410.

The (99,000 ohm) resistor ② part number 4411 was changed to new resistor (1,000,000 ohms) part number 4414.

The (51,000 ohm) resistor ② and the (25,000 ohm) resistor ② were removed.

The secondary lead of the second I. F. transformer connected to condenser ② was removed and connected to the secondary lead of the first I. F. transformer on condenser ③. A (490,000 ohm) resistor part number 4517 was added between the center top of the volume control (in cathode circuit) and the secondary leads of first and second I. F. transformer connected on condenser ③.

A (15,000 ohm) resistor part number 6208 was added, connected between end of the volume control (in cathode circuit) and end of resistors ② and ③.

A (30 ohm) resistor part number 7155 was added across the filament of the Ballast tube. Two pieces of 1" braid was used to protect the ends of the resistor.