Philco Radio & Television Corp.

	Model: 37-62	**Chassis:**	**Year:** Pre October 1937
	Power:	**Circuit:**	**IF:**
	Tubes:		
	Bands:		

Resources
Riders Volume 11 - CHANGES 11-3
Riders Volume 8 - PHILCO 8-19
Riders Volume 8 - PHILCO 8-20

Remler 49, 171

The Remler Model 171 is identical with Model 49, shown on *page 9-3 of Rider's Volume IX*. The following additional information, not included on *page 9-3*, is now available.

The antenna-RF coil is located near the back of the chassis and is trimmed by the trimmer on the rear section of variable condenser. The detector coil is located under the chassis and is trimmed by the trimmer on the front section of the variable condenser.

The following table shows the d-c voltages to ground with no signal and the volume control at full volume.

Tube	Plate	Screen	Cathode
6D6	180	180	4.5
6C6	70	180	9.0
41	170	180	0

The d-c voltage of the bias supply for the 41 grid is a 15-volt drop across resistor (9) in the negative side of the power supply.

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Airline 62-362 Issue B

Several changes are included in Issue B of the Model 62-362 Airline receiver (above serial number 8J285-200) as compared with the Model 62-362 shown on *Montgomery-Ward pages 9-45 to 9-47 of Rider's Volume IX*. Fig. 1 shows that condensers C1, C4, C5, C6, and C9 are mounted in the same unit in Model 62-362, Issue B. Fig. 1 of course corresponds to the layout shown in the upper left-hand corner of *page 9-45*.

Fig. 2 shows the output end of the schematic for Issue B of Model 62-362. By comparing Fig. 2 with the corresponding portion of the schematic shown on *page 9-45*, you will notice the new position of the tone control consisting of R14 and C20, and also the two resistors R16 and R17 added across the winding of the phonograph pickup coil.

The accompanying table lists the part numbers and descriptions for Model 62-362 Issue B which are different from those listed on *page 9-45*.

Schematic Reference	Part Number	Description
R5	BE130144	15,000 ohms, 1 w.
R16	BE130238	400,000 ohms, ½ w.
R17	BE13020	100,000 ohms, ½ w.
C1	BE12456	3-35 mmf adjustable trimmer
C4	BE12456	2-15 mmf " "
C5	BE12456	2-15 mmf " "
C6	BE12456	2-15 mmf " "
C9	BE12456	450 mmf working capacity, series pad
C20	BE1292	.0005 mf, mica
C22	BE10092	.001 mf, 600 v

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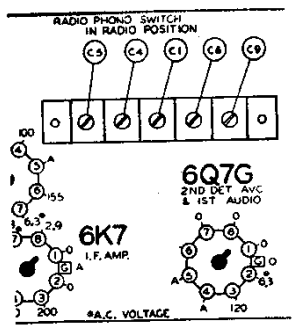
Philco 630, 630PF

Certain oscillator trimmers are incorrectly numbered on *pages 6-32 and 6-33 of Rider's Volume VI* (early model 630 Philco). In Fig. 2 and in the alignment instructions, both on *page 6-32*, the reference numbers should be changed as follows: Change 13 to 16; change 14 to 17; change 16 to 13; change 17 to 14. The same changes should be made in the parts list on *page 6-33*. These changes must be made so that the reference numbers will agree with those shown on the schematic which appears on *page 6-31*. Do NOT alter the numbers on the schematic.

These errors in numbering also appear in the parts list for the late Model 630 and the Model 630PF Philco. Therefore the reference numbers on *page 7-98 of Rider's Volume VII* must be changed as follows: Change 13 to 16; change 14 to 17; change 16 to 13; change 17 to 14.



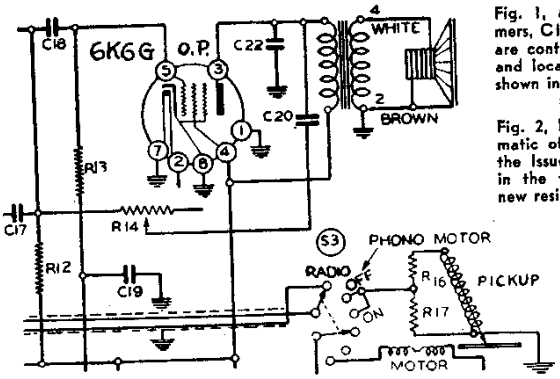
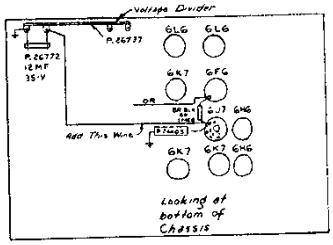


Fig. 1, above. The five trimmers, C1, C4, C5, C6, and C9 are contained in a single unit and located on the chassis as shown in Issue B of the Airline model 62-362.

Fig. 2, left. The partial schematic of the output circuit of the Issue B shows the change in the tone control and two new resistors across the pickup coil.

Stromberg 160-L

Variations in new 6J7 tubes have occasionally caused distortion in the automatic tone-control circuit of the Stromberg Model 160-L receiver as first released. These tubes function correctly after "aging" a few hours.



By adding the wire indicated, distortion can be eliminated from the automatic tone control circuit of the Stromberg Model 160-L

This possibility of distortion can also be eliminated by adding a wire as shown in the accompanying layout. This change stabilizes the screen voltage; it was put in effect at the factory in all 160-P and 180-L receivers, and in all 160-L receivers produced after October 23, 1936.

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Philco 37-62

In order to eliminate oscillation, the screen resistor, No. 11, has been changed from 25,000 ohms to 32,000 ohms. See schematic on *page 8-19 in Rider's Volume VIII*.

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Fairbanks-Morse 12A

Refer to the schematic shown on *page 8-11 of Rider's Volume VIII*. During production, the 47,000-ohm resistor in the AVC line which was connected to the bottom of the antenna coil secondary, and the condenser (4) were removed. The r-f secondary was then grounded directly, thus removing AVC from the 6L7G mixer tube, and the bottom of the antenna coil secondary was connected directly to the resistor (16). The condenser (33) in the grid circuit of the 6C5G oscillator was changed from 50 mmf to 100 mmf to increase sensitivity on the u-h-f band.

MODEL 37-62
Schematic, Parts

PHILCO RADIO & TELEV. CORP.

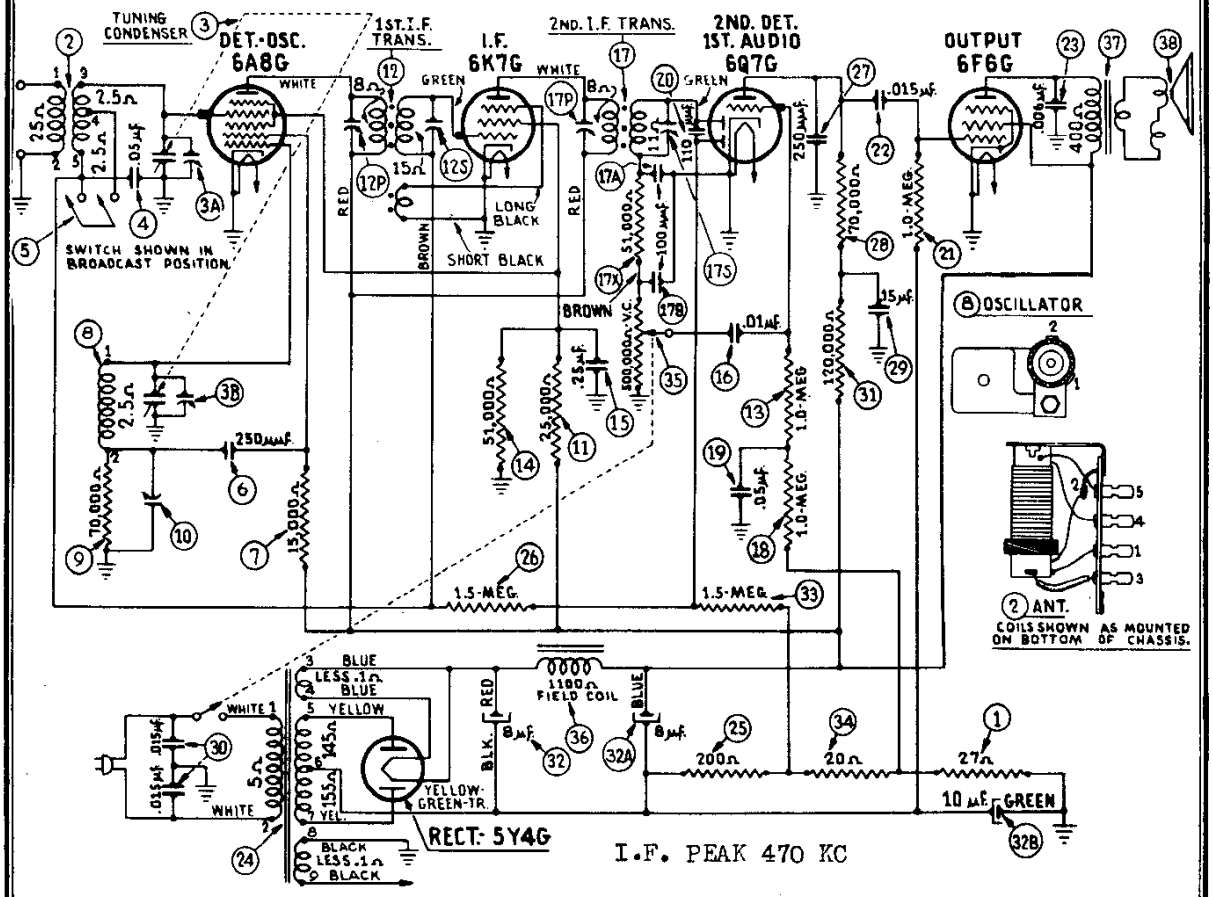

Fig. 4. Schematic Diagram—Model 37-62

Replacement Parts—Model 37-62

January 1937

Schem. No.	Description	Part No.	List Price
1	Resistor (27 ohms ½ watt)	33-027339	$0.20
2	Ant. Transformer	32-2446	
3	Tuning Condenser	31-1989	
4	Condenser (.05 mfd. Tubular)	30-4020	.20
5	Range Switch	42-1299	.60
6	Condenser (250 mmfd. mica)	30-1032	.25
7	Resistor (15000 ohms ½ watt)	33-315339	.20
8	Osc. Transformer	32-2330	
9	Resistor (70000 ohms ½ watt)	33-370339	.20
10	Compensator (Osc. series)	31-6150	
11	Resistor (25000 ohms 1 watt)	33-325439	.20
12	1st I. F. Trans.	32-2311	1.80
13	Resistor (1 megohm ½ watt)	33-510339	.20
14	Resistor (51000 ohms 1 watt)	33-351439	.20
15	Condenser (.25 mfd. tubular)	30-4134	.25
16	Condenser (.01 mfd. Bakelite)	3903SU	.25
17*	2nd I. F. Trans.	32-2460	
17X	Resistor (51000 ohms ½ watt, in I. F. Transformer)	33-351339	.20
18	Resistor (1 megohm ½ watt)	33-510339	.20
19	Condenser (.05 mfd. Tubular)	30-4020	.20
20	Condenser (110 mmfd. mica)	30-1031	.20
21	Resistor (1 megohm ½ watt)	33-510339	.20
22	Condenser (.015 mfd. Bakelite)	3793SU	.35
23	Condenser (.006 mfd. Tubular)	30-4504	
24	Power Transformer (115 volts, 60 cycle)	32-7626	$4.25
	Power Transformer (115 volts, 25 to 40 cycle)	32-7627	5.50
	Power Transformer (110/220 A. C. 50 to 60 cycle)	32-7628	5.25
25	Resistor (200 ohms, ½ watt)	33-1210	.20
26	Resistor (1.5 megohm ½ watt)	33-515339	.20
27	Condenser (250 mmfd. mica)	30-1032	.25
28	Resistor (70000 ohms ½ watt)	33-370339	.20
29	Condenser (.15 mfd. Tubular)	30-4505	
30	Condenser (.015 mfd. Dual Bakelite)	3793DG	.40
31	Resistor (120000 ohms ½ watt)	33-412339	.20
32	Elect. Condenser (8, 8, 10 mfds.)	30-2192	1.80
33	Resistor (1.5 megohms ½ watt)	33-515339	.20
34	Resistor (20 ohms ½ watt)	33-020339	.20
35	Volume Control and A. C. Switch	33-5198	
36	Field Coil Assembly	36-3039	2.75
37	Output Transformer	32-7019	.90
38	Speaker Cone Assembly	36-3157	1.00
	Dial	27-5287	.40
	Hub	28-7152	.10
	Clamp	28-2637	.10
	Dial Screen Assembly	38-8362	.30
	Cable (Speaker)	L-2633	.20
	Cover Speaker Terminals	36-3025	$0.06
	Cord (AC)	L-2183	.40
	Knob	27-4321	.10
	Knob	27-4332	.10
	Mtg. Rubber (Chassis, 4 required)	27-4116	.08
	Mtg. Fibre Plate (Chassis, 4 required)	27-7497	.01
	Mtg. Washer (Chassis, 4 required)	28-2089	1.50 C
	Mtg. Bolt (Chassis, 4 required)	W-1258	2.60 C
	Mtg. Rubber (Chassis, 4 required)	5189	.03
	Panel (Ant. Coil)	38-8533	
	Pilot Lamp Assembly	38-8534	.30
	Shield (Tube)	28-2726	.10
	Socket (8 Prong)	27-6058	.11
	Socket (7 Prong)	27-6057	.11
	Spacer Mtg. Ant. Coil	27-8228	.01
	Screw Mtg. Ant. Coil	W-1635	.30 C
	Speaker	36-1009	5.75
	Vernier Drive Kit	45-2426	
	CABINET PARTS		
	Baffle & Silk	40-6090	.30
	Bezel	28-3899	.25
	Screw (Bezel)	W-1644	.50 C
	Screw (Speaker Mtg.)	W-1694	.50 C

*Two condensers 17A and 17B are part of Padder inside of I. F. Transformer 17.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

MODEL 37-62
Alignment, Trimmers
Voltage, Chassis

PHILCO RADIO & TELEV. CORP.

Electrical Specifications

Type of Circuit: Superheterodyne, with pentode audio output Circuit.

Power Supply:	Voltage	Frequency	Connection
	115	50 to 60 cycles	60 watts
	115	25 to 40 cycles	60 watts

Intermediate Frequency: 470 K. C.

Undistorted Output: 3 watts.

Speaker: S-7.

Tuning Ranges: Two; Range 1—530 to 1720 K. C. to 2.5 M. C.

Range 2—2.3

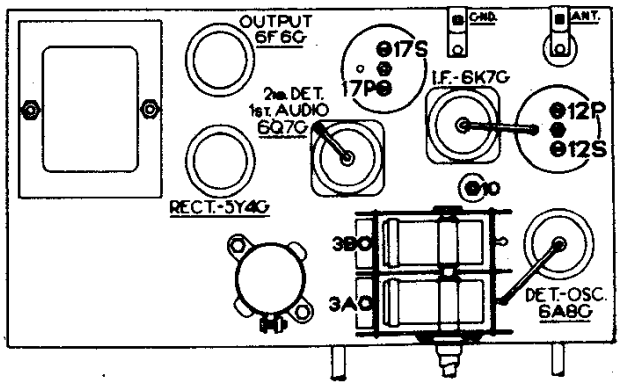

Fig. 2. Locations of R. F. & I. F. Compensators

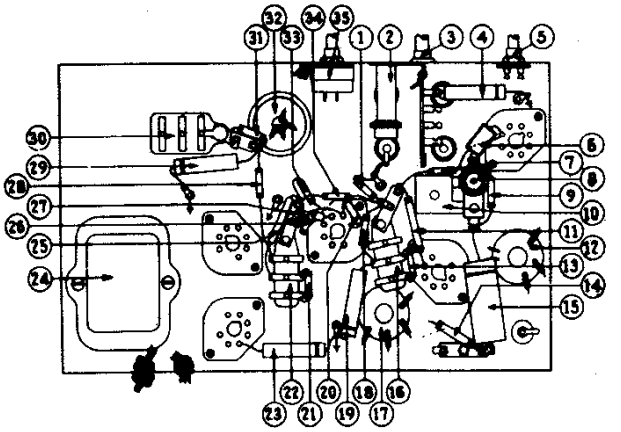

Fig. 3. Parts locations, Underside of chassis view

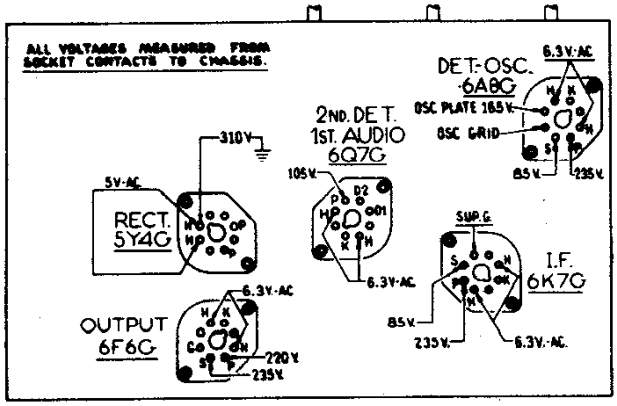

Fig. 1. View of Sockets from Underside Chassis

The voltages indicated by arrows were measured with a **Philco 025 Circuit Tester** which contains a voltmeter having a resistance of 1000 ohms per volt. Volume Control at minimum, range switch in broadcast position, line voltage 115 A. C.

Alignment of Compensators

Equipment Required: (1) Signal Generator; Philco Model 088 (fundamental frequency 110 to 20000 K. C.) is the correct instrument for this purpose; (2) output meter. **Philco Model (025) Circuit Tester** incorporates a Sensitive output meter and is recommended; (3) Fibre handle screwdriver (Philco Part No. 27-7059); (4) Fibre wrench Part No. 3164.

Dial Calibration: Set the tuning condenser at the maximum capacity position. Loosen the set screw of the dial hub and set dial, with the glowing indicator centered between the first and second index lines, at the low frequency end of the broadcast scale. Tighten set screw in this position.

Output Meter: The 025 Output Meter is connected to the plate and cathode terminals of the (6F6G) tube. Adjust the meter to use the (0-30) Volt Scale.

INTERMEDIATE FREQUENCY CIRCUIT

1. Set controls as follows:
   a. Volume control maximum
   b. Receiver Dial 580 K. C.
   c. Signal generator 470 K. C.
   d. Range Switch Broadcast position

RADIO FREQUENCY CIRCUIT

Tuning Range: 520 to 1720 K. C.

1. Connect the signal generator output lead through a 200 mmfd. condenser to the ant. terminal of the receiver and the generator ground to the chassis. Set the range switch in the broadcast position.

2. Adjust compensators as follows for maximum output.

Signal generator	Receiver dial	Compensators in order
1600 K. C.	1600 K. C.	(3B), (3A)
580 K. C.	580 K. C.	(10) Note A
1600 K. C.	1600 K. C.	(3B), (3A)

No adjustments are required for Range 2 as Range 1 adjustments compensate for this circuit.

Note A—First tune compensator (10) for maximum output, then vary the tuning condenser of the receiver for maximum output about the 580 K. C. dial mark. Now turn compensator (10) slightly to the right or left and vary the receiver tuning condenser for maximum output. If the out reading increases, turn compensator (10) in the same direction a trifle more, and again vary the tuning condenser for maximum output. If the output decreases, set the compensator in the opposite direction. This procedure of first setting the compensator and then varying the tuning condenser is continued until there is no further gain in output reading.

2. Connect the signal generator output lead through a .1 mfd. condenser to the 6A8G Grid and adjust the Compensators as follows for maximum output (17S), (17P), (12S), and (12P).