

## Philco Radio & Television Corp.

**Model:** 42-843

**Chassis:**

**Year:** Pre 1945

**Power:**

**Circuit:**

**IF:**

**Tubes:**

**Bands:**

### Resources

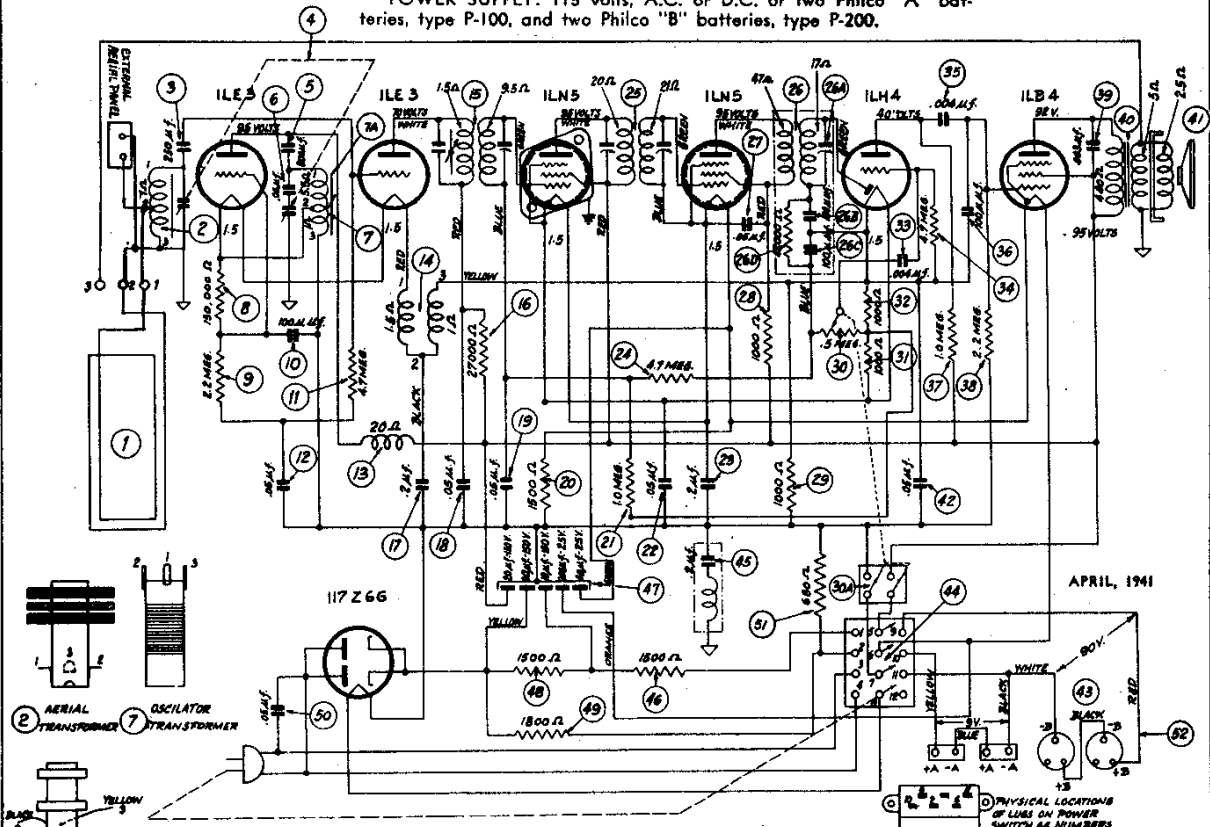
[Riders Volume 14 - PHILCO 14-77](#)

[Riders Volume 14 - PHILCO 14-78](#)

[Riders Volume 14 - PHILCO 14-143](#)

PHILCO RADIO & TELEVISION CORP. MODELS 42-842, 42-843, 42-844

POWER SUPPLY: 115 volts, A.C. or D.C. or two Philco "A" batteries, type P-100, and two Philco "B" batteries, type P-200.



APRIL, 1941

IF PEAK 455 KC

TUBE SOCKET VOLTAGES INDICATED ON DIAGRAM WERE MEASURED WITH A 1000 OHM PER VOLT METER. POWER SUPPLY 117 V. A.C. WHEN USING DRY BATTERIES, VOLTAGES WILL BE ABOUT 5 VOLTS LESS THAN SHOWN

REPLACEMENT PARTS

SCHEM. No.	DESCRIPTION	PART No.	SCHEM. No.	DESCRIPTION	PART No.	DESCRIPTION	PART No.
1.	Loop Aerial	76-1216	35.	Condenser (.004 mfd., 400 volts)	30-4578	Cabinet (42-842)	10333B
2.	Screw (Loop Mtg.)	W-2971	36.	Mica Condenser (100 mmfd.)	60-114187	Cabinet (42-843)	10337C
3.	Aerial Transformer	32-3622	37.	Resistor (1 megohm)	33-510339	Cabinet (42-844T)	10338A
4.	Mica Condenser (250 mmfd.)	60-125157	38.	Resistor (2.2 megohms)	33-522339	Cable (Power)	L-3199
5.	Tuning Condenser	31-2530	39.	Condenser (.003 mfd., 1,000 volts)	30-4469	Clamp (Battery)	36-2178
6.	Rubber Grommet (Mtg.)	27-4896	40.	Output Transformer	32-8169	Screw (Clamp)	W-527
7.	Oscillator Transformer	27-4896	41.	Cone Assembly (for Speaker 36-1540)	36-4201	Nut (Clamp)	W-526F1
8.	Resistor (150,000 ohms)	33-415339	42.	Condenser (.05 mfd., 200 volts)	30-4519	Dial Scale	27-52691
9.	Resistor (2.2 megohms)	33-522339	43.	Battery Plug and Cable	41-3570	Dial Pointer	54-4069
10.	Mica Condenser (100 mmfd.)	60-110157	44.	Automatic Power Change Over Switch	42-1650	Knob	27-4970
11.	Resistor (4.7 megohms)	33-547339	45.	Condenser (.2 mfd.) & Choke Assy.	76-1227	Speaker	36-1540
12.	Condenser (.05 mfd., 200 volts)	30-4519	46.	Resistor (1,500 ohms)	33-215339	Socket (Tubes)	27-6181
13.	Oscillator Choke	32-3615	47.	Electrolytic Condenser	30-2498	Socket	27-6174
14.	Filament Choke	32-3632	48.	Clamp	56-1466	Grommet (Mtg. Socket)	84-4065
15.	1st I. F. Transformer	32-3628	49.	Resistor (1,000 ohms)	33-215339	Resistor (1,000 ohms)	33-215339
16.	Paintnut (Mtg.)	W-1949	50.	Condenser (.05 mfd., 200 volts)	33-218339	Adapter Plate	56-2112
17.	Resistor (27,000 ohms)	33-327339	51.	Resistor (500 ohms)	30-4519	Screw (Chassis Mtg.)	56-2112
18.	Condenser (.2 mfd.)	30-4587	52.	Battery Cable	33-168339	Washer (Chassis Mtg.)	W-410
19.	Condenser (.05 mfd., 200 volts)	30-4519					
20.	Resistor (1,500 ohms)	33-215339					
21.	Resistor (1 megohm)	33-510339					
22.	Condenser (.05 mfd., 200 volts)	30-4519					
23.	Condenser (.2 mfd.)	30-4587					
24.	Resistor (4.7 megohms)	33-547339					
25.	2nd I. F. Transformer	32-3621					
26.	Paintnut (Mtg.)	W-1949					
27.	3rd I. F. Transformer	32-3631					
28.	Paintnut (Mtg.)	W-1949					
29.	Condenser (.05 mfd., 200 volts)	30-4519					
30.	Resistor (1,000 ohms)	33-210339					
31.	Resistor (1,000 ohms)	33-210339					
32.	Resistor (1,000 ohms)	33-210339					
33.	Condenser (.004 mfd., 400 volts)	30-4578					
34.	Resistor (4.7 megohms)	33-547339					

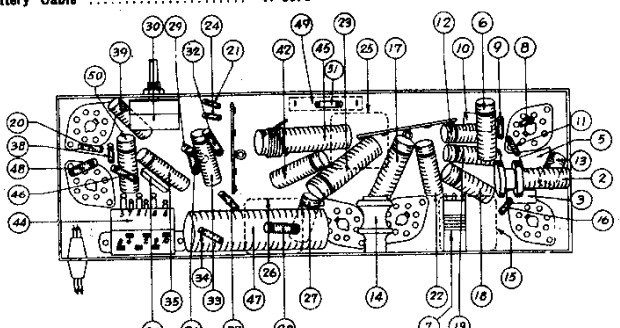


FIG. 2. LOCATIONS OF PARTS — UNDERSIDE OF CHASSIS.

MODEL 42-842(122)

MODELS 42-842, 42-843, PHILCO RADIO & TELEVISION CORP.  
42-844

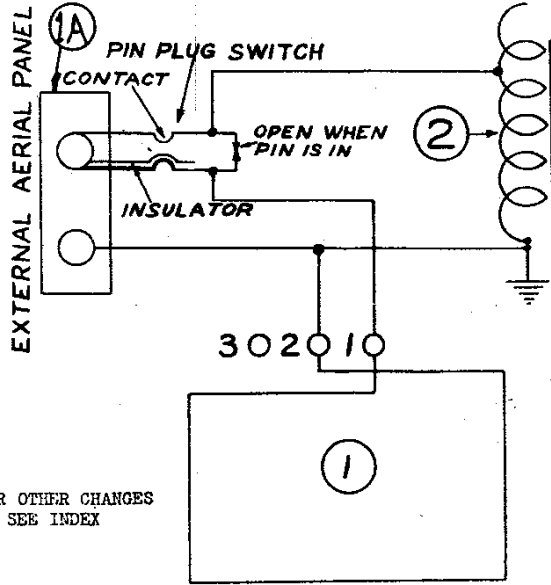
MODELS 42-853, 42-854

PRODUCTION CHANGES

Model 42-842, Code 122 is similar to code 121 with the exception of the external aerial input panel, auxiliary plug-in loop aerial, cabinet and several parts. The schematic diagram, aligning instructions and specifications in service bulletin 391 for 42-842, code 121 applies to 42-842, code 122 with the parts and aerial panel change shown below. The Philco auxiliary plug-in loop aerial part No. 45-2935 should be used with this model when an outside aerial is required. This loop aerial is a low impedance type.

REPLACEMENT PARTS—MODEL 42-842, CODE 122.

SCHEM. No.	DESCRIPTION	PART No.	DESCRIPTION	PART No.	SCHEM. No.	DESCRIPTION	PART No.				
1.	Loop Aerial Screw (Loop Mts.)	76-1429	50. Condenser (.05 mfd., 400 volts)	30-451A	1.	Screw	W-453				
1A.	External Loop Terminal Socket	W-2075	51. Resistor (500 ohms)	33-16833B		Washers	W-648				
2.	Aerial Transformer Core	27-8183	52. Battery Cable	41-3378		Dial Pointer	27-8668				
3.	Mica Condenser (250 mmfd.)	32-3022	MISCELLANEOUS PARTS					27-8978			
4.	Tuning Condenser Rubber Grommet (Mts.)	68-125187								Socket	27-6174
	Spacers (Mts.)	27-4596								Socket	27-6174
	Spacers (Drive Cord)	23-2806								Grommet (Mtg. Socket)	54-4965
	Tuning Shaft "W" Washer	56-6132								Adaptor Plug	56-2112
	Drive Cord	28-3095								Screw (Chassis Mts.)	W-2650
5.	Mica Condenser (800 mmfd.)	31-2380								Washer (Chassis Mts.)	W-410
6.	Condenser (.85 mfd., 200 volts)	65-180137								External Low Impedance Loop Aerial	45-2935
7.	Oscillator Transformer Iron Core	30-451B									
8.	Resistor (150,000 ohms)	32-3655									
9.	Resistor (2.2 megohms)	33-415339									
10.	Mica Condenser (100 mmfd.)	33-322339									
11.	Resistor (4.7 megohms)	60-116157									
12.	Condenser (.03 mfd., 200 volts)	33-547339									
13.	Oscillator Choke	30-4519									
14.	Filament Choke	32-3645									
15.	1st I. F. Transformer Pinout (Mts.)	32-3652									
16.	Resistor (27,000 ohms)	32-3220									
17.	Condenser (.2 mfd.)	W-1949									
18.	Condenser (.85 mfd., 200 volts)	33-322339									
19.	Condenser (.85 mfd., 200 volts)	36-4307									
20.	Resistor (1,500 ohms)	30-4519									
21.	Resistor (1 megohm)	33-218339									
22.	Condenser (.05 mfd., 200 volts)	33-516339									
23.	Condenser (.2 mfd.)	30-4519									
24.	Resistor (4.7 megohms)	38-4567									
25.	2nd I. F. Transformer Pinout (Mts.)	33-547339									
26.	3rd I. F. Transformer Pinout (Mts.)	32-3621									
27.	Condenser (.85 mfd., 200 volts)	W-1949									
28.	Resistor (1,000 ohms)	30-4519									
29.	Resistor (1,000 ohms)	33-218339									
30.	Volume Control Pinout (Mts.)	33-218339									
30A.	Switch	33-3436									
31.	Resistor (1,000 ohms)	W-2127									
32.	Resistor (1,000 ohms)	(Part of 30)									
33.	Condenser (.004 mfd., 400 volts)	33-218339									
34.	Resistor (4.7 megohms)	30-4576									
35.	Condenser (.85 mfd., 400 volts)	33-547339									
36.	Mica Condenser (100 mmfd.)	30-4574									
37.	Resistor (1 megohm)	60-116157									
38.	Resistor (2.2 megohms)	33-415339									
39.	Condenser (.882 mfd., 1,000 volts)	33-322339									
40.	Output Transformer	30-4409									
41.	Cone Assembly (for Speaker 36-1548)	37-4169									
42.	Condenser (.05 mfd., 200 volts)	36-4201									
43.	Battery Plug and Cable	30-4519									
44.	Automatic Power Change Over Switch Spacer	41-3570									
45.	Condenser (.2 mfd.) & Choke Assy.	42-1650									
46.	Resistor (1,500 ohms)	57-6194									
47.	Electrolytic Condenser	74-1227									
48.	Resistor (1,500 ohms)	30-2881									
49.	Resistor (1,000 ohms)	30-1452									
		33-218339									
		33-3424									



FOR OTHER CHANGES SEE INDEX

**Filament Resistor Change in Models 42-842, 843, 844, 853, 854**

In the above listed models, complaints may be received of a complete set of tubes testing weak. Replacement of the tubes restores normal operation for only a short time after which the same condition re-occurs.

The condition is caused by the overheating of the series filament resistor shown as No. 49 in Service Bulletin No. 391 and as No. 56 in Service Bulletin No. 388. When the overheating takes place, the resistor breaks down, its resistance value decreases, thus allowing an increased filament current to the tubes with resulting damage to the filaments.

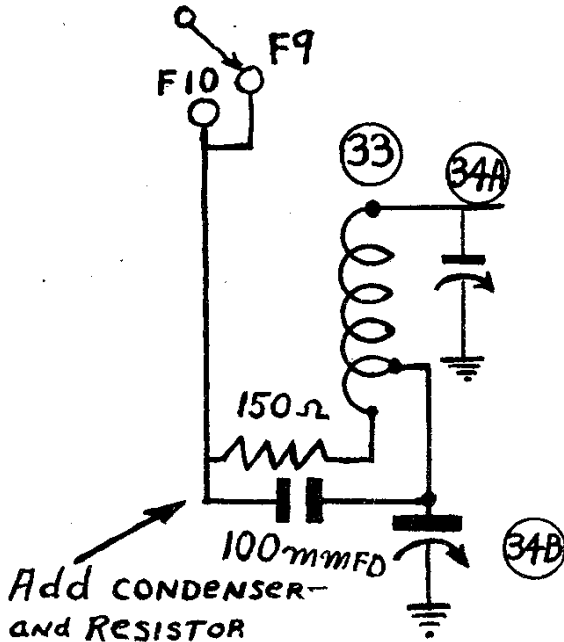
An entirely new replacement resistor is available — Part No. 33-3424. This resistor is considerably longer than the one now in the set and is equipped with a protecting cover. The resistor is mounted vertically over one of the original holes in the chassis with a suitable drive screw. The tab on the cover is soldered to the chassis. The longer leads which are required for the installation and which should be fireproof, and not ordinary rubber covered, are brought down through the large hole in the chassis. The other large hole should be plugged up with a spring button, such as Philco Part No. W2232.

Although the Service Bulletin parts listing calls for resistor No. 33-218339, the number of the resistor which has been used is 33-3410. If a replacement is necessary, however, the new resistor No. 33-3424 should be used.

PHILCO RADIO & TELEVISION CORP.

61 CONDENSER (.006 mfd.)	30-4591	
	400 volts	30-4610
70 CONDENSER (.05 mfd.)	30-4519	30-4609
	200 volts	200 volts
84 CONDENSER (.003 mfd.)	30-4582	30-4608
	(600 volts)	

If trouble is experienced in padding the 22 M.C. normal tuning range (compensator 38A), the installation of a 150 ohm resistor Part No. 33-115339 and a 100 mmfd. condenser will improve the operation. These parts are installed in the circuit as shown in the diagram below.



MODELS 42-842, 42-843, 42-844

To improve the tuning operation of the oscillator circuit the oscillator transformer (7) was changed from Part No. 32-3633 to 32-3685. The iron core for both of these transformers is Part No. 57-2325.

Power cord changed from Part No. L-3199 to L-3299.

Correction: Resistor (49) shown as 33-218339 in the parts list should be changed to 33-3410.

MODELS 42-853, 42-854

Correction, Note B

The second line of this paragraph should read as follows: "adjusted, the image signal will be found by turning the signal generator 910 K.C. above the fundamental signal which will be 15.910 M.C."

MODEL 42-1001, CODE 121

CONVERTING THE PHONOGRAPH MOTOR FOR USE ON 50 CYCLE A.C. LINES

The motor in this model designed for operation on 60 cycle A.C. lines. The motor will operate satisfactorily on 50 cycle lines. The only change that needs to be made is to change the drive ratio between the motor pulley and the turntable drive pulley. This is accomplished by putting a coil spring, Part No. 28-8999, over the motor drive pulley. Screw it on the drive pulley counterclockwise with the long pig tail at the top. The pig tail can be cut off after the spring has been placed on the pulley.

MODEL 42-1002, CODE 121-122

CONVERTING THE PHONOGRAPH MOTOR FOR USE ON 50 CYCLE A.C. LINES

Follow instructions as for Model 42-1001

MODEL 42-1003, CODE 121-122

The light beam pick-up (9) of later production Code 122 chassis was changed from a metal tone arm Part No. 35-2517 to a plastic tone arm Part No. 35-2601. The counter-weight when using the plastic tone arm is Part No. 318-2863 (3 oz.). A new rubber bumper is also required Part No. 54-4167.

CONVERTING THE PHONOGRAPH MOTOR FOR USE ON 50 CYCLE A.C. LINES

Follow instructions as for Model 42-1001

MODEL 42-1004, CODE 121

To improve the operating performance of the rectifier circuit, the wiring of rectifier tube 50Y6GT socket was changed as follows:

Remove the bare wire between contacts 2 and 3. Connect a wire from contact 3 of the socket (see figure 3 in bulletin) to the lug of the filament resistor (43) to which condenser (40) is already attached. This change was incorporated in all chassis marked run 2. Sets prior to run 2 do not have this wiring change.

Beginning with chassis marked run 3 condenser (36) .01 mfd., 400 volts Part No. 30-4572 was changed to .006 mfd., 400 volts Part No. 30-4591. This change was made to improve the tone quality of the phonograph.

Loop Aerial (1) changed from Part No. 76-1368 to Part No. 76-1372.

CONVERTING THE PHONOGRAPH MOTOR FOR USE ON 50 CYCLE A.C. LINES

Follow instructions as for Model 42-1001

MODEL 42-1005, CODE 121-122

Two types of Photo Electric pickups (9) were used on Code 122 models. One consisted of a metal tone arm Part No. 35-2531 and the other a plastic arm Part No. 35-2602. When using the plastic tone arm a 3 oz. counter weight Part No. 318-2863 must be used in the supporting end of the arm. A new tone arm bumper Part No. 54-4167 is also required.

CONVERTING THE PHONOGRAPH MOTOR FOR USE ON 50 CYCLE A.C. LINES

Follow instructions as for Model 42-1001

MODEL 42-1006, CODE 122

Condenser (7) changed from Part No. 76-1161 to 76-1227. Values remain the same. Construction change only.

CONVERTING THE PHONOGRAPH MOTOR FOR USE ON 50 CYCLE A.C. LINES

Follow instructions as for Model 42-1001