

Philco Radio & Television Corp.

Model: 42-360

Chassis:

Year: Pre 1945

Power:

Circuit:

IF:

Tubes:

Bands:

Resources

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MODEL 42-345
 MODEL 42-360
 MODEL 42-365

PHILCO RADIO & TELEVISION CORP.

MODEL 42-323
 MODEL 42-327
 MODEL 42-340

ALIGNING R. F. AND I. F. COMPENSATORS
 The following procedure is used for all models:
EQUIPMENT REQUIRED

- SIGNAL GENERATOR:** Covering the frequency range of the receiver, such as Philco Model 070.
- ALIGNING INDICATOR:** Either a vacuum tube voltmeter or an audio output meter may be used as an aligning indicator.
- TOOLS:** Philco Fiber Screw Driver, Part No. 45-2610.

CONNECTING ALIGNING INSTRUMENTS

Audio Output Meter: If this type of aligning meter is used, connect it to the voice coil terminals of the speaker or from the plate of the 35A5 tube to the chassis. Adjust the meter for the 0 to 10 volt scale.

Vacuum Tube Voltmeter: To use the vacuum tube voltmeter as an aligning indicator, make the following connections: Attach the negative (-) terminal of the voltmeter to any point in the circuit where the A, V, C. voltage can be obtained. Connect the positive (+) terminal of the vacuum tube voltmeter to the chassis.

Signal Generator: When adjusting the I. F. padders, the high side of the signal generator is connected through a .1 mfd. condenser to the antenna section of the tuning condenser. Connect the ground or low side of the generator to the chassis.

When aligning the R. F. padders a loop is made from a few turns of wire and connected to the signal generator output

terminals; the signal generator is then placed close to the loop of the radio. The receiver can be adjusted in the cabinet or removed from the cabinet.

In order to adjust the radio outside of the cabinet the dial scale should be removed from the cabinet and placed on the dial background plate. The dial scale can be held in position by clips or rubber bands. The loop aerial should also be placed in approximately the same position around or near the chassis as when assembled.

After connecting the aligning instruments adjust the compensators as shown in the tabulation below. Locations of each compensator are shown in the schematic diagram of each model.

If the indicating meter pointer goes off scale when adjusting the compensators, reduce the strength of the signal from the generator.

PROCEDURE—MODELS 42-323, 42-327, 42-340, 42-360

Opera- tions Order	SIGNAL GENERATOR			RECEIVER			Special Instruc- tions	
	Output Connec- tions to Radio	Dial Setting	Dial Setting	Control Setting	Adjust Com- pensators In Order	Adjust Com- pensators In Order		
1	Aerial Section Tuning Con- denser	455 KC	540 KC	Vol. Max. Band Switch Bndscr.	22A 24A 25A 27A 29A 31A 33A	24A 25A 26A 27A 28A 29A 30A 31A 32A 33A	1	
2	Loop (See above Instruc- tions)	1720 KC	1720 KC	"	SB SB	7 14A	Note A	
3	"	1500 KC	1500 KC	"	3A	8A 23 4		
4	"	580 KC	580 KC	"	15 15	23B 4A	Roll Tun- ing Con- denser Note B	
5	Repeat Operation 2							
6	"	15.5 MC	15.5 MC	Radio Switch S. W.	15A 3 3	21A 11 12	Note C	

PROCEDURE—MODELS 42-345, 42-365

Opera- tions Order	SIGNAL GENERATOR			RECEIVER			Special Instruc- tions	
	Output Connec- tions to Radio	Dial Setting	Dial Setting	Control Setting	Adjust Com- pensators In Order	Adjust Com- pensators In Order		
1	Aerial Section Tuning Con- denser	455 KC	640 KC	Vol. Max. Band Switch "Bndscr."	22A 23B 25B 31A 41A	22A 23B 25B 31A 41A	1	
2	Loop (See above Instruc- tions)	1720 KC	1720 KC	"	15	6B	Note A	
3	"	1500 KC	1500 KC	"	9	13		
4	"	580 KC	580 KC	"	9B	13A		
5	Repeat Operation 2							
6	"	6.7 MC	6.7 MC	Band Switch "Follow"	15A	6A		
7	"	15.5 MC	15.5 MC	Band Switch S. W.	15B Osc. 3A 4	6 Osc. 4	Note C	

NOTE A—Adjusting Dial Pointer: In order to adjust the receiver correctly, the dial must be aligned to track properly with the tuning condenser. To do this, proceed as follows: Turn the tuning condenser to the maximum capacity position (plates fully meshed). With the condenser in this position, set the tuning pointer on the first mark below 540 KC.

NOTE B—When adjusting the low frequency compensator (broadcast) or the aerial padders of the high frequency tuning range; the receiver tuning condenser must be adjusted (rolled) as follows: First, tune the compensator for maximum output, then vary the tuning condenser of the receiver for maximum output. Now turn the compensator slightly to the right or left and again vary the receiver tuning condenser for maximum output. This procedure of first setting the compensator and then varying the tuning condenser is continued until maximum output reading is obtained.

NOTE C—Turn tuning condenser until pointer is on 15.5 MC mark, then adjust oscillator compensator to maximum output and signal peak from the left position (counter-clockwise). Short the Aerial Padder and signal then be "rolled" to maximum on the 15 MC signal. See Note B.

MODEL 42-360
MODEL 42-365

PHILCO RADIO & TELEV. CORP.

REPLACEMENT PARTS—Model 42-360

Sch. No.	Description	Part No.	Sch. No.	Description	Part No.	Sch. No.	Description	Part No.
1.	Loop Aerial	75-1271	25B.	Secondary Compensator (Part of 25)	W-1949	57.	Power Transformer (115 volts, 60 cycle)	32-8117
	Spring Washer	23-4185		Mtg. Nut	20-4215		Power Transformer (115 volts, 25 cycle)	L-8199
	Sleeve	23-2805	26.	Condenser (.05 mfd, 200 volts)	32-518233	58.	Power Cord	3968-DG
	Screw (Loop Mtg.)	56-1545	27.	Resistor (1 megohm)	23-247229	59.	Filter Condenser (Power Line)	3968-DG
	Washer (3 required)	W-448	28.	Electrolytic Condenser (3-8 mfd, 400 volts)	23-247229	60.	Filter Lamps (Indicator)	34-2864
	Washer (1 required)	W-425	29.	2nd I. F. Transformer	23-247229	61.	Socket Assembly (Pilot Lamp Dial)	76-1216
2.	Terminal Panel	38-9870	29A.	Secondary Compensator (Part of 29)	W-1949		Socket Assembly (Indicator Pilot Lamp)	76-1972
3.	External Aerial Socket	27-6145	30.	Condenser (.05 mfd, 200 volts)	20-4215		Head Switch	42-1572
	Mtg. Rivet	W-207	31.	Resistor (320 ohms)	32-518233		Mtg. Nut	W-2157
4.	Compensator (Broadcast Aerial)	31-6284	32.	Condenser (.05 mfd, 400 volts)	32-518233			
4A.	Compensator (Oscillator—Broadcast—580KC) (Part of 4)	W-239	33.	Resistor (47,000 ohms)	32-247229			
	Mtg. Rivet	W-239	34.	Resistor (4700 ohms)	32-247229			
5.	Aerial Transformer (Broadcast Band)	23-2725	35.	Condenser (.1 mfd, 400 volts)	32-42229			
	Mtg. Clip	23-5002	36.	Resistor (1000 ohms)	23-210229			
6.	Mica Condenser (200 mmfd)	30-1205	37.	3rd I. F. Transformer	23-247229			
7.	Mica Condenser (250 mmfd)	60-125157	37A.	Secondary Compensator (Part of 37)	W-1949			
8.	Aerial Transformer (S. W. Band)	23-2725	37B.	Condenser (100 mmfd) (Part of 37)	20-4215			
	Mtg. Clip	23-5002	37C.	Resistor (47,000 ohms) (Part of 37)	32-247229			
9.	Resistor (2.2 megohms)	32-522233	37D.	Condenser (100 mmfd) (Part of 37)	20-4215			
10.	Condenser (.05 mfd, 200 volts)	30-4619			W-1949			
	Tuning Condenser	31-2481	38.	Condenser (100 mmfd)	60-119157			
	Tuning Shaft	23-2427	39.	Volume Control	32-5451			
	"C" Washer	23-2942	40.	Resistor (1 megohm)	32-518233			
	Drive Drum	38-9882	41.	Resistor (630,000 ohms)	23-462229			
	Drive Cord (Pointer)	31-2597	42.	Resistor (320,000 ohms)	23-462229			
	Drive Cord (Tuning Cond.)	31-2400	43.	Resistor (4.7 megohms)	23-547229			
	Insulating Bushing	27-9427	44.	Condenser (.006 mfd, 400 volts)	32-42229			
	Rubber Connector	27-9425	45.	Resistor (220,000 ohms)	32-5451			
	Mtg. Grommet	27-4596	46.	Tone Control	W-2157			
	Spring (Cond. Drive Cord)	28-8751	47.	Condenser (.003 mfd, 200 volts)	32-52229			
	Spring (Pointer Drive Cord)	28-8751	48.	Condenser (.01 mfd, 400 volts)	32-52229			
	Screw (Mtg. Cond.)	W-2902	49.	Mica Condenser (100 mmfd)	60-119157			
12.	Compensator (S. W. Aerial)	31-6284	50.	Resistor (470,000 ohms)	32-447229			
13.	Mica Condenser (10 mmfd)	60-010227	51.	Condenser (.05 mfd, 400 volts)	32-42229			
14.	Compensator (Oscillator—S. W.)	31-6284	52.	Output Transformer	32-5116			
14A.	Compensator (Oscillator—Broadcast) (Part of 14)	W-239	53.	Speaker	32-1512-3 or 32-1512-4			
	Mtg. Rivet	32-3727		Cone Assembly (For Speaker 32-1512-3)	32-4164			
15.	Oscillator Transformer	23-5003		Cone Assembly (For Speaker 32-1512-4)	32-4167			
	Mtg. Clip	30-1206		Cable (Speaker)	41-3541			
16.	Mica Condenser (182 mmfd)	60-125157		Mtg. Nut (Speaker)	W-129			
17.	Mica Condenser (250 mmfd)	60-10157	54.	Field Coil (Replace Speaker)	32-2292			
18.	Resistor (47,000 ohms)	32-247229	55.	Bias Resistor (27-32-300 ohms)	32-2271			
19.	Resistor (32,000 ohms)	32-247229	56.	Electrolytic Condenser (12 mfd, 400 volts)				
20.	Condenser (.05 mfd, 200 volts)	30-4519						
21.	Condenser (.05 mfd, 400 volts)	30-4518						
22.	Resistor (2200 ohms)	32-222233						
23.	Resistor (4700 ohms)	32-247229						
24.	1st I. F. Transformer	32-2425						
25A.	Primary Compensator (Part of 25)	W-1949						

REPLACEMENT PARTS—Model 42-365

Sch. No.	Description	Part No.	Sch. No.	Description	Part No.	Sch. No.	Description	Part No.
1.	Loop Aerial	75-1271	29A.	Primary Compensator (Part of 29)	W-1949	61.	Power Transformer (115 volts, 60 cycle)	32-8117
	Sleeve (Mtg. Loop)	56-1545	29B.	Secondary Compensator (Part of 29)	W-1949		Power Transformer (115 volts, 25 cycle)	L-8199
	Sleeve (Mtg. Loop)	56-1545	30.	Condenser (.05 mfd, 200 volts)	20-4215	62.	Power Line Filter Condenser	3968-DG
	Spring Washer	23-4185	31.	Resistor (1 megohm)	32-518233	63.	Pilot Lamp (Indicator)	34-2864
	Screw (Loop Mtg.)	56-1545	32.	2nd I. F. Transformer	23-247229		Socket Assembly (Dial) Light	76-1216
	Washer (Loop Mtg.)	W-425	32A.	Mtg. Nut	W-1949		Socket Assembly (Indicator)	76-1076
2.	Terminal Panel (Loop Aerial)	38-9870	33.	Secondary Compensator (Part of 32)	W-1949		Light Shield	64-2194
3.	External Aerial Socket	27-6145	34.	Condenser (.05 mfd, 200 volts)	20-4215		Head Switch	42-1572
	Mtg. Rivet	W-207	35.	Resistor (320 ohms)	32-42229		Mtg. Nut	W-2157
4.	Compensator (S. W. Aerial)	31-6284	36.	Resistor (47,000 ohms)	32-247229			
5.	Mica Condenser (10 mmfd)	60-010227	37.	Electrolytic Condenser (3-8 mfd, 400 volts)	32-247229			
6A.	Compensator (Oscillator—Police) (Part of 6)	31-6274	37A.	Secondary Compensator (Part of 37)	W-1949			
6B.	Compensator (Oscillator—Broadcast) (Part of 6)	W-239			W-1949			
7.	Oscillator Transformer (Broadcast—S. W.)	23-5003	38.	Resistor (4700 ohms)	32-247229			
	Mtg. Clip	23-5002	39.	Condenser (.01 mfd, 400 volts)	32-42229			
8.	Oscillator Transformer (Police)	23-2767	40.	Resistor (1000 ohms)	32-518233			
	Mtg. Clip	23-5002	41.	2nd I. F. Transformer	W-1949			
9.	Aerial Transformer	23-2725		Mtg. Nut	W-1949			
	Mtg. Clip	23-5002	41A.	Secondary Compensator (Part of 41)	W-1949			
10.	Mica Condenser (10 mmfd)	60-010227	41B.	Condenser (100 mmfd) (Part of 41)	20-4215			
11.	Silver Mica Condenser (210 mmfd)	30-1217	41C.	Resistor (47,000 ohms) (Part of 41)	32-247229			
12.	Mica Condenser (250 mmfd)	60-125157	41D.	Condenser (100 mmfd) (Part of 41)	20-4215			
13.	Compensator (Aerial—Broadcast)	31-6401	42.	Mica Condenser (100 mmfd)	60-119157			
13A.	Compensator (Oscillator—580 KC) (Part of 13)	W-239	43.	Volume Control	32-5451			
14.	Resistor (2.2 megohms)	32-522233	44.	Mtg. Nut	W-2157			
15.	Condenser (.05 mfd, 200 volts)	30-4519	45.	Resistor (1 megohm)	32-518233			
16.	Condenser (.05 mfd, 400 volts)	30-4518	46.	Resistor (630,000 ohms)	23-462229			
17.	Mica Condenser (250 mmfd)	60-125157	47.	Resistor (320,000 ohms)	23-462229			
18.	Mica Condenser (100 mmfd)	60-10157	48.	Resistor (4.7 megohms)	23-547229			
19.	Mica Condenser (182 mmfd)	30-1206	49.	Condenser (.006 mfd, 400 volts)	32-42229			
20.	Tuning Condenser	31-2581	50.	Resistor (220,000 ohms)	32-42229			
	Drive Drum	38-9882		Tone Control	W-2157			
	Drive Cord (Pointer)	31-2597		Mtg. Nut	W-2157			
	Drive Cord (Tuning Cond.)	31-2400			32-447229			
	Drive Shaft	24-8141			60-119157			
	"C" Washer	23-2942			W-2157			
	Insulating Bushing	27-9427			32-518233			
	Grounding Spring	23-2862			32-518233			
	Grommet (Mtg. Cond.)	27-9425			32-518233			
	Rubber Connector (Tuning Cond.)	27-9425			32-547229			
	Spring (Cond. Drive Cord)	28-8751			32-42229			
	Spring (Pointer Drive Cord)	28-8751			32-42229			
	Sleeve (Mtg. Tuning Cond.)	23-2805			32-5116			
21.	Push-Button and Power Switch Assembly	42-1297			32-1512-3 or 32-1512-4			
	Mtg. Sleeve	32-52229			32-4164			
	Mtg. Screw	W-323			32-4167			
	Mtg. Grommet	W-323			41-3541			
22.	Push-Button Compensator Assembly	31-6277			32-3292			
23.	Mica Condenser (100 mmfd)	60-119157			W-229			
24.	Resistor (47,000 ohms)	32-247229						
25.	Resistor (32,000 ohms)	32-247229						
26.	Resistor (2200 ohms)	32-222233						
27.	Resistor (4700 ohms)	32-247229						
28.	Condenser (.05 mfd, 400 volts)	30-4518						
29.	1st I. F. Transformer	32-2425						
	Mtg. Nut	W-1949						