

MODELS

42-323, code 121-122; 42-340, code 121; 42-360, code 121
42-327, code 121-122; 42-345, code 121; 42-365, code 121

SPECIFICATIONS

MODELS 42-323, 42-327, CODES 121, 122

Circuit Description: Models 42-323 and 327, Codes 121 and 122, are six (6) tube superheterodyne radios with two tuning bands covering standard, police and shortwave broadcast stations, and operated on alternating current (A. C.) or direct current (D. C.) power supplies. The radios are designed to operate from the Philco low impedance loop aerial which is included in each model. In addition, connections are provided for an external aerial. In general, these models are similar in design with the exception of the cabinets and tuning mechanisms.

Model 42-323 is manually tuned and is assembled in a table type cabinet. Codes 121 and 122 differ only in the pilot lamp, rectifier tube and bias resistor. These differences are indicated on the part list and diagram.

Model 42-327 incorporates electric push-button tuning in addition to manual tuning and is assembled in a table type cabinet. Codes 121 and 122 differ only in the type of pilot lamp, rectifier tube and bias resistor. These differences are indicated on the part list and diagram. The electric push-button tuning mechanism consists of six (6) push-buttons. One push-button is used to control (ON-OFF) the power to the radios. The remaining five (5) push-buttons automatically tune in stations. The procedure for adjusting and operating the push-buttons will be found in the instructions supplied with the radio.

Other features included in these models are: Philco LOKTAL tubes; noise reducing converter tube (XXD); two intermediate frequency tubes; automatic volume control; beam power audio output stage, and a dynamic dust-proof speaker.

Intermediate Frequency: 455 KC.

Tuning Bands: 540 to 1720 KC; 9 to 15.5 MC.

Audio Output: 1 watt.

Power Supply: 115 volts, A. C. or D. C.

Philco Tubes Used: XXD, converter; two 7B7, I. F. amplifiers; 7C6, second detector, first audio A. V. C.; 50L6GT, beam power output and a 35Z5 rectifier. Code 121; 35Z3 rectifier. Code 122.

Cabinet Dimensions:	Height,	Width	Depth
Model 42-323—	9"	13-13/16"	8 1/4"
Model 42-237—	9-1/16"	15"	8 1/4"

MODEL 42-345, CODE 121

Circuit Description: Model 42-345, Code 121, is a seven (7) tube superheterodyne radio employing electric push-button tuning for automatically selecting standard broadcast stations and three (3) tuning bands covering Standard, Police, and Shortwave stations. In addition, this model employs the built-in Philco low impedance loop aerial, for reception of stations without an external aerial. Connections are also provided for an external aerial to be used in sections where signal strength is weak, such as steel reinforced buildings and other shielded areas.

Other features of design included in this model are Philco Loktal tubes; XXL, noise reducing converter tube; two intermediate frequency stages; variable tone control; automatic volume control; and a pentode audio output stage.

Electric Push-Button Tuning: Six (6) electric tuning push-buttons are provided for automatically selecting stations. Five (5) of the push-buttons are used from broadcast stations and one push-button for controlling (ON-OFF) the power supply. The procedure for adjusting the push-buttons will be found in the instructions supplied with the radio.

Intermediate Frequency: 455 KC.

Tuning Bands: 540 to 1720 KC; 2.3 to 7 MC; 9 to 15.5 MC.

Audio Output: 2 watts.

Power Supply: 115 volts A. C., 60 cycles. The radio can also be operated on 115 volts, 25 cycle current, by changing the power transformers as indicated in the parts list.

Philco Tubes Used: One XXL, converter; one XXL, oscillator; one 7B7, 1st I. F.; one 7B7, 2nd I. F.; one 7C6, 2nd detector, 1st audio, A. V. C.; one 7B5 audio output, and a 7Y4, rectifier.

Cabinet Dimensions: Height, 10-11/16"; Width, 16"; Depth, 9 1/4".

MODEL 42-340, CODE 121

Circuit Description: Model 42-340, Code 121, is a seven (7) tube superheterodyne radio with two tuning bands covering Standard, Police and Shortwave broadcast stations and operates on alternating current (A. C.). This model is designed to operate from the Philco low impedance loop aerial which is built in the cabinet. In addition, connections are also provided for an external aerial. Other features of design are: Philco Loktal tubes; XXL noise reducing converter tube; two intermediate frequency stages; two point tone control; automatic volume control; pentode audio output stage.

Intermediate Frequency: 455 KC.

Tuning Bands: 540 to 1720 KC; 9 to 15 MC.

Audio Output: 1.5 watts

Power Supply: 115 volts A. C., 60 cycles. The radio can also be operated on 115 volts, 25 cycle current, by changing the power transformers as indicated in the parts list.

Philco Tubes Used: One XXL, converter; one XXL, oscillator; one 7B7, 1st I. F.; one 7B7, 2nd I. F.; one 7C6, 2nd detector, 1st audio, A. V. C.; one 7B5, audio output, and a 7Y4, rectifier.

Cabinet Dimensions: Height, 9-15/16"; Width, 16"; Depth, 9 1/4".

MODEL 42-360, CODE 121

Circuit Description: Model 42-360, Code 121, is a seven (7) tube superheterodyne radio with two tuning bands covering Standard, Police and Shortwave broadcast stations and operates on alternating current (A. C.). In addition, this model incorporates a Philco low impedance loop aerial which is built into the cabinet; provisions for an external aerial; Philco LOKTAL tubes, including the XXL noise reducing converter tube; two intermediate frequency stages; continuously variable tone control; automatic volume control; pentode audio output stage and a 10-inch dynamic speaker.

Intermediate Frequency: 455 KC.

Tuning Band Frequencies: 540 to 1720 KC; 9 to 15.5 MC.

Audio Output: 2 watts.

Power Supply: 115 volts, 60 cycles A. C.

This model can also be operated on 115 volts, 25 cycle A. C. by changing the power transformer as indicated in the parts list.

Philco Tubes Used: One XXL, converter; One XXL, oscillator; one 7B7, 1st I. F. stage; one 7B7, 2nd I. F. stage; one 7C6, 2nd detector, 1st audio; one 41 audio output, and an 84 rectifier.

Cabinet Dimensions: Height, 36 3/4"; Width, 26 5/8"; Depth, 10 5/8".

SPECIFICATIONS

MODEL 42-365

Circuit Description: Model 42-365, Code 121, is a seven (7) tube, alternating current (A. C.) operated superheterodyne radio with three tuning bands covering Standard, Police, Amateur and Shortwave broadcast stations and the sound of a television program tuned in by special Philco Television Radios. The radio incorporates six (6) electric push-buttons for automatically selecting five (5) stations in the broadcast band; built-in Philco low impedance loop aerial completely rotatable; provisions for an external aerial; Philco LOKTAL tubes, including the XXL noise reducing converter tube; two intermediate frequency stages; continuously variable tone control; automatic volume control; pentode audio output stage and a dynamic speaker.

Intermediate Frequency: 455 KC.

Tuning Band Frequencies: 540 to 1720 KC; 2.3 to 6.7 MC; 9 to 15.5 MC.

Audio Output: 2 watts.

Power Supply: 115 volts, 60 cycle A. C.

This model can also be operated on 115 volts, 25 cycle A. C. by changing the power transformer as indicated in the parts list.

Philco Tubes Used: One XXL, converter; one XXL oscillator; one 7B7, 1st I. F. stage; one 7B7, 2nd I. F. stage;

one 7C6, 2nd detector, 1st audio; one 41 audio output and a 7Y4, rectifier.

Electric Push-Button Tuning: Six (6) electric tuning push-buttons are provided for automatically selecting stations. Five (5) of the push-buttons are used from broadcast stations and one push-button for controlling (ON-OFF) the power supply. The procedure for adjusting the push-buttons will be found in the instructions supplied with the radio.

EXTERNAL AERIAL CONNECTIONS

MODELS 42-323, 42-327, 42-340, 42-345, 42-360, 42-365

The built-in low-impedance loop aerial system of these models is designed to operate without an outside aerial or ground, and to give exceptional receiving performance under average conditions.

To operate the radio, however, in steel reinforced buildings and other shielded locations, where signal strength is weak, the Philco outdoor aerial part No. 45-2817 is recommended for maximum receiving performance. The outdoor aerial can be easily connected to the radio by inserting the plug attached to the transformer (supplied with the aerial) into the socket provided at the rear of the radio. This aerial can be obtained from your local Philco distributor.

ALIGNING R. F. AND I. F. COMPENSATORS

The following procedure is used for all models:
EQUIPMENT REQUIRED

1. **SIGNAL GENERATOR:** Covering the frequency range of the receiver, such as Philco Model 070.
2. **ALIGNING INDICATOR:** Either a vacuum tube voltmeter or an audio output meter may be used as an aligning indicator. Philco Models 027 and 028 circuit testers contain both these meters.
3. **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 the compensators 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.

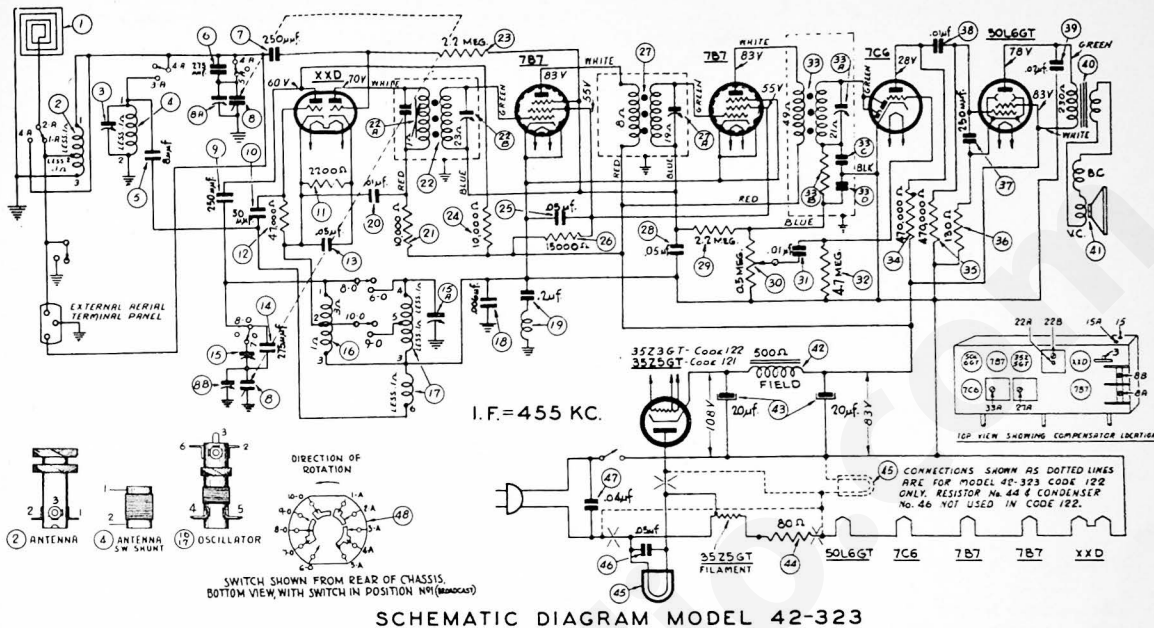
PROCEDURE—MODELS 42-323; 42-327; 42-340; 42-360										PROCEDURE—MODELS 42-345; 42-365																			
Operations in Order	SIGNAL GENERATOR			RECEIVER					Special Instruc- tions		Operations in Order	SIGNAL GENERATOR			RECEIVER					Special Instruc- tions									
	Output Con- nec- tions to Radio	Dial Setting	Dial Setting	Control Setting	Adjust Com- pensators in Order Models 42- 323 42- 327 340 42- 360							Output Con- nec- tions to Radio	Dial Setting	Dial Setting	Control Setting	Adjust Com- pensators in Order Models 42- 345 42- 365													
1	Aerial Section Tuning Con- denser	455 KC	540 KC	Vol. Max. Band Switch Brdcat.	22A 22B 27A 33A	24A 24B 29A 35A	15A 15B 18A 32A	25A 25B 29A 37A	14A	Note A	1	Aerial Section Tuning Con- denser	455 KC	540 KC	Vol. Max. Band Switch "Brdcat."	29A 29B 32A 34A	29A 29B 32A 41A	15A 15B 18A 32A	25A 25B 29A 37A	14A	Note A								
2	Loop (See above Instruc- tions)	1720 KC	1720 KC	"	8B	8B	7	14A	Note A	2	Loop (See above Instruc- tions)	1720 KC	1720 KC	"	15	6B	Note A	6	Note A										
3	"	1500 KC	1500 KC	"	8A	8A	23	4		3	"	1500 KC	1500 KC	"	9	13		9											
4	"	580 KC	580 KC	"	15	15	23B	4A	Roll Tun- ing Con- denser Note B	4	"	580 KC	580 KC	"	9B	13A		13A	Roll Tun- ing Con- denser Note B										
5	Repeat Operation 2									5	Repeat Operation 2									5	Repeat Operation 2								
6	"	6.7 MC	6.7 MC	Band Switch S. W.	15A 3	15A 3	7A 12A	14 12A	Note C	6	"	6.7 MC	6.7 MC	Band Switch "Police"	15A	6A		6A											
7	"	15.5 MC	15.5 MC	Band Switch S. W.	15B 9A	15B 9A	7A 12A	14 12A	Note C	7	"	15.5 MC	15.5 MC	Band Switch S. W.	15B 9A	6 Osc. 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 on the second signal peak from the tight position (compensator closed). The Short Wave Aerial padder should then be "rolled" to maximum on the 15 MC signal. See Note B.



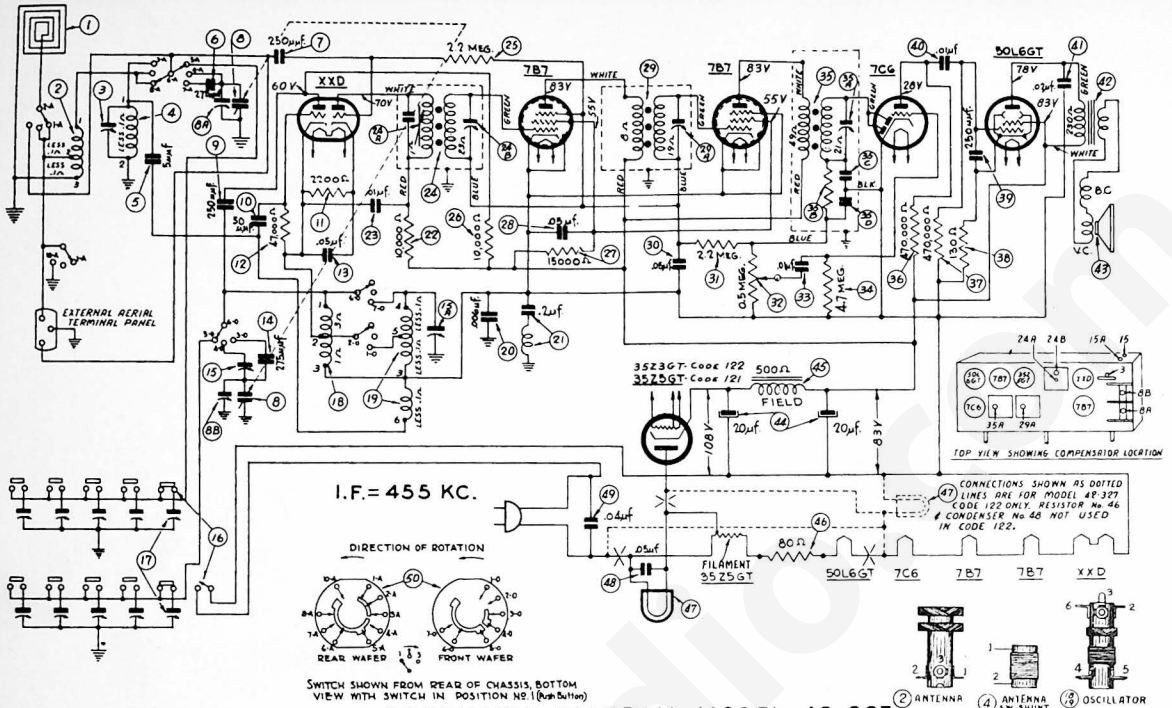
SCHEMATIC DIAGRAM MODEL 42-323

The D. C. voltages indicated at the tube elements in the above diagram were measured with a 1000 ohms per volt voltmeter. Philco Model 027. Line voltage, 117 volts A. C. No signal being received—range switch broadcast.

REPLACEMENT PARTS—Model 42-323

Sch. No.	Description	Part No.	Sch. No.	Description	Part No.	Sch. No.	Description	Part No.
1.	Loop Aerial	76-1279	22B.	Compensator, Part of 22	W-1949	Miscellaneous Parts		
2.	Mtg. Screw	W-2071	23.	Resistor (2.2 megohms)	33-522339			
3.	Aerial Transformer (Broadcast)	33-3750	24.	Resistor (10,000 ohms)	33-310339	Cable (Power)	L-3199	
4.	Mtg. Clip	28-5002	25.	Condenser (15 mfd, 200 volts)	30-4519	Dial Scale	27-5762	
5.	Compensator (Aerial-S. W.)	31-6426	26.	Resistor (15,000 ohms)	33-315339	Dial Pointer	56-2016	
6.	Aerial Transformer (S. W.)	32-3751	27.	2nd I. F. Transformer	32-3712	Knob (Tuning, Volume, Band)	54-4136	
7.	Mica Condenser (8 mmfd)	60-080137	27A.	Secondary Compensator, Part of 27	W-1949	Socket Assembly (Pilot Lamp)		
8.	Mica Condenser (275 mmfd)	30-1200	28.	Condenser (.05 mfd, 200 volts)	30-4519	(Code 121)	76-1177	
9.	Mica Condenser (250 mmfd)	60-125157	29.	Resistor (2.2 megohms)	33-522339	Socket Assembly (Pilot Lamp)		
10.	Tuning Condenser	31-2553	30.	Volume Control (.5 megohm)	33-5458	(Code 122)	76-1232	
11.	Drive Cord	76-1323	31.	Mtg. Nut	W-2157	Socket (Aerial)	27-6145	
12.	Drive Shaft	28-5890	32.	Condenser (.01 mfd, 400 volts)	30-4572	Rivet	W-207	
13.	"C" Washer	W-758	33.	Resistor (4.7 megohms)	33-547339	Socket (Loktal Tubes)	27-6177	
14.	Mtg. Screw (Cond.)	27-4596	33A.	3rd I. F. Transformer	32-3713	Socket (Octal Tubes)	27-6174	
15.	Rubber Grommet (2 required)	54-4020	33B.	Nut	W-1949	Rivet	W-239	
16.	Rubber Grommet (1 required)	28-8954	33C.	Secondary Compensator, Part of 33		Screw (Chassis Mtg.)	W-2030	
17.	Spring (Drive Cord)	28-5663	33D.	Resistor (47,000 ohms), Part of 33		Washer (Chassis Mtg.)	W-410	
18.	Sleeve	W-410	34.	Condenser (100 mmfd), Part of 33A	33-447339			
19.	Washer		35.	Condenser (100 mmfd), Part of 33A	33-447339			
8A.	Compensator (Aerial—1500 KC), Part of 8		36.	Resistor (470,000 ohms)	33-113336			
8B.	Compensator (Oscillator—1720 KC), Part of 8		37.	Resistor (130 ohms)	60-125157			
9.	Mica Condenser (250 mmfd)	60-125157	38.	Mica Condenser (250 mmfd)	30-4572			
10.	Mica Condenser (50 mmfd)	60-050157	39.	Condenser (.01 mfd, 400 volts)	30-4516			
11.	Resistor (2200 ohms)	33-222339	40.	Condenser (.02 mfd, 400 volts)	32-8173			
12.	Resistor (47,000 ohms)	33-347339	41.	Output Transformer	36-1544-9			
13.	Condenser (.05 mfd, 200 volts)	30-4519	42.	Speaker	36-4190			
14.	Mica Condenser (275 mmfd)	30-1200	43.	Cone Assembly (For Speaker 36-1544-9)				
15.	Compensator (Broadcast—500 KC)	31-6424	44.	Field Coil (Replace Speaker 36-1544)	30-2503			
15A.	Compensator (S. W.—15 MC)	31-6453	45.	Electrolytic Condenser (20, 20 mfd)	56-1466			
16.	Oscillator Transformer (Broadcast)	32-3715	46.	Clamp	33-3406			
17.	Oscillator Transformer (S. W.), Part of 16		47.	Pilot Lamp (Code 121)	34-2068			
18.	Condenser (.006 mfd, 400 volts)	30-4591	48.	(Code 122)	34-2477			
19.	Condenser, .2 mfd, and R. F. Choke Assembly	76-1161	46.	Condenser (.05 mfd, 200 volts)	30-4519			
20.	Condenser (.01 mfd, 400 volts)	30-4572	47.	Condenser (.04 mfd, 400 volts)	30-4119			
21.	Resistor (10,000 ohms)	33-310339	48.	Band Switch	42-1677			
22.	1st I. F. Transformer	32-3711						
22A.	Compensator, Part of 22							

FIG. 1—PART LOCATIONS, UNDERSIDE OF CHASSIS, MODEL 42-323



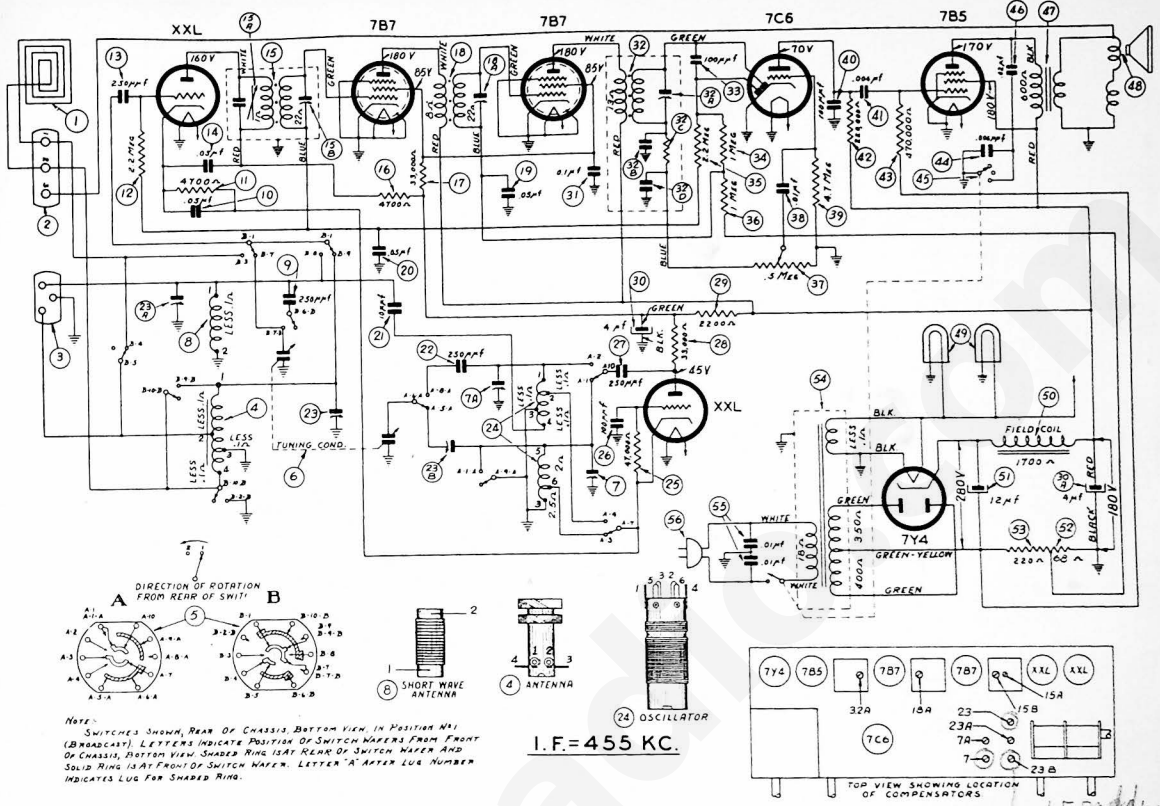
SCHEMATIC DIAGRAM MODEL 42-327

The D. C. voltages indicated at the tube elements in the above diagram were measured with a 1000 ohms per volt voltmeter. Philco Model 027. Line voltage, 117 volts A. C. No signal being received—range switch broadcast.

REPLACEMENT PARTS—Model 42-327

Sch. No.	Description	Part No.	Sch. No.	Description	Part No.	Sch. No.	Description	Part No.
1.	Loop Aerial	76-1279	24A.	Compensator Primary of (24)	33-522339	49.	Condenser (.04 mfd, 400 volts)	30-4119
	Mtg. Screw	W-2071	24B.	Compensator (Part of 24)	33-310339	50.	Band Switch	42-1668
1A.	External Aerial Socket	27-6145	24C.	Condenser (Part of 24)	33-315339	Miscellaneous Parts		
	Rivet	W-207	25.	Resistor (2.2 megohms)	30-4519		Cable (Power)	L-3199
2.	Aerial Transformer (Broadcast)	32-3714	26.	Resistor (10,000 ohms)	32-3712		Cabinet (Complete)	10681-A
	Mtg. Clip	28-5002	27.	Resistor (15,000 ohms)	W-1949		Dial Scale	27-5754
3.	Compensator (Aerial—S. W.)	31-6426	28.	Condenser (.05 mfd, 200 volts)	30-4519		Dial Pointer	56-2076
4.	Aerial Transformer (S. W.)	32-3716	29.	2nd I. F. Transformer	30-4519		Eucutcheon (Push-Button)	56-2233
	Mtg. Clip	28-5002	29A.	Compensator (Part of 29)	W-2145		Mtg. Screw	W-2071
5.	Mica Condenser (5 mmfd)	60-005137	30.	Condenser (.05 mfd, 200 volts)	30-4519		Knob (Push-Button)	54-4101
6.	Mica Condenser (275 mmfd)	30-1200	31.	Resistor (2.2 megohms)	33-522339		Socket (Tubes)	54-4125
7.	Mica Condenser (250 mmfd)	60-125157	32.	Volume Control	33-5448		Rivet	27-6177
8.	Tuning Condenser	31-2555	33.	Mtg. Nut	W-2157		Screw (Chassis Mtg.)	W-239
	Drive Shaft	76-1276	34.	Condenser (.01 mfd, 400 volts)	30-4572		Terminal Panel	38-9579
	"C" Washer	28-5990	35.	Resistor (4.7 megohms)	33-547339		Terminal Panel	76-1257
	Drive Cord	31-2553	35A.	3rd I. F. Transformer	32-3713		Tab (ON-OFF)	27-5738
	Rubber Grommet	27-4596	35B.	Compensator (Part of 35)			Tab Cover	27-6737
	Rubber Grommet	54-4020	35C.	Resistor (Part of 35)			Tab Kit	40-6660
	Sleeve	28-5665	35D.	Condenser (Part of 35A)			Washer (Chassis Mtg.)	W-410
	Spring (Drive Cord)	28-8954	36.	Condenser (470,000 ohms)	33-447339			
	Screw	W-768	37.	Resistor (470,000 ohms)	33-447339			
	Washer	W-410	38.	Resistor (130 ohms)	33-113336			
9.	Mica Condenser (250 mmfd)	60-125157	39.	Mica Condenser (250 mmfd)	60-125157			
10.	Mica Condenser (50 mmfd)	60-050157	40.	Condenser (.01 mfd, 400 volts)	30-4572			
11.	Resistor (2200 ohms)	32-222339	41.	Condenser (.02 mfd, 400 volts)	30-4516			
12.	Resistor (47,000 ohms)	33-347339	42.	Output Transformer	32-8173			
13.	Condenser (.05 mfd, 200 volts)	30-4519	43.	Speaker	36-1544-9			
14.	Mica Condenser (275 mmfd)	30-1200		Cone Assembly (For Speaker 36-1544-9)	36-4190			
15.	Compensator (Broadcast—580 KC)	31-6434	44.	Electrolytic Condenser (20-20 mfd) Mtg. Clamp	30-2503			
16.	Push-Button Switch	42-1708	45.	Field Coil (Replace Speaker 36-1544)	56-1466			
17.	Push-Button Compensator Assembly	31-6424	46.	Filament Resistor (80 ohms) (Used in Code 121 only)	33-3406			
	Mtg. Screw	W-1974	47.	Pilot Lamp (6 volts—Code 121)	34-2068			
18.	Oscillator Transformer (Broadcast)	32-3715		Socket Assembly (Code 121)	76-1177			
	Mtg. Clip	28-5002		Pilot Lamp (115 volts—Code 122)	34-2477			
19.	Oscillator Transformer (S. W.) (Part of 18)			Socket Assembly (Code 122)	76-1282			
20.	Condenser (.006 mfd, 400 volts)	30-4445		Condenser (.05 mfd, 200 volts)	30-4519			
21.	Condenser (.2 mfd and R. F. Choke Assembly)	76-1161						
22.	Resistor (10,000 ohms)	33-310339						
23.	Condenser (.01 mfd, 400 volts)	30-4572						
24.	1st I. F. Transformer	32-8711						
	Mtg. Nut	W-1949						

FIG. 2—PART LOCATIONS, UNDERSIDE OF CHASSIS, MODEL 42-327



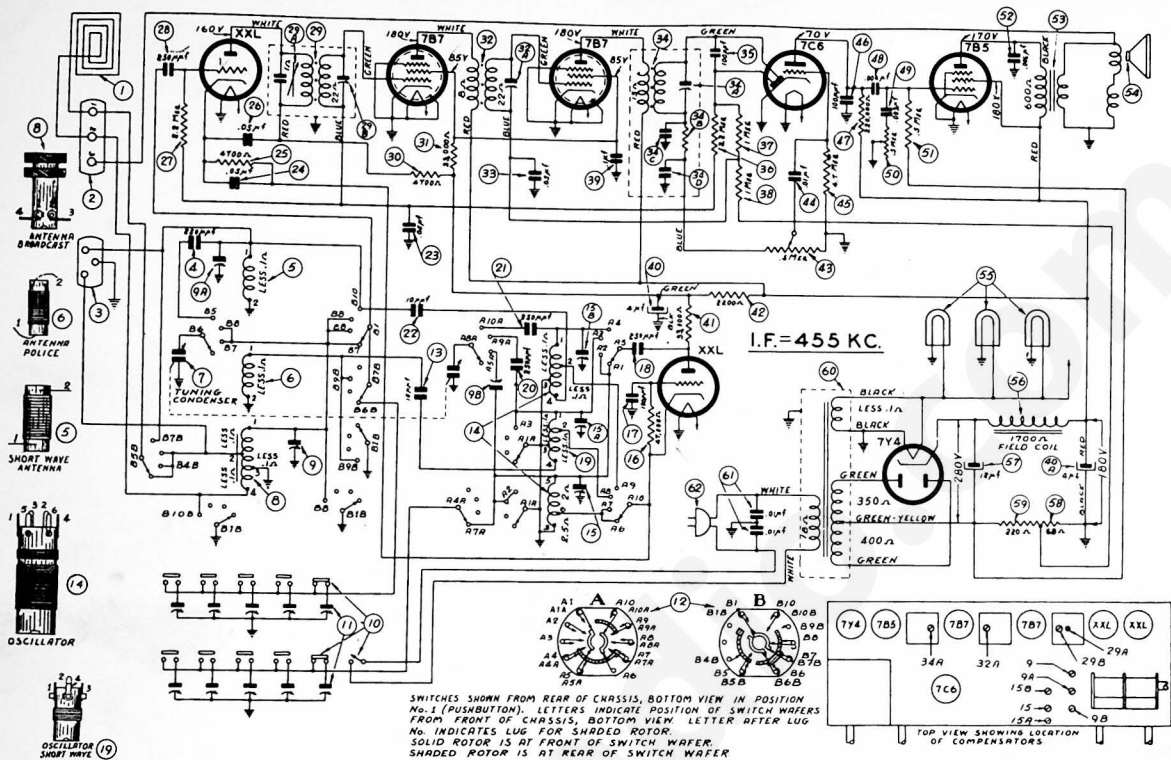
SCHEMATIC DIAGRAM MODEL 42-340

The D. C. voltages indicated at the tube elements in the above diagram were measured with a 1000 ohms per volt voltmeter. Philco Model 027. Line voltage, 117 volts A. C. No signal being received—range switch broadcast.

REPLACEMENT PARTS—Model 42-340

Sch. No.	Description	Part No.	Sch. No.	Description	Part No.	Sch. No.	Description	Part No.
1.	Loop Aerial	76-1270	23B.	Compensator (Oscillator—50 KC)		52.	Resistor (68 ohms)	33-063336
2.	Mtg. Screw	W-2071		(Part of 23)		53.	Resistor (220 ohms)	33-122436
3.	Loop Terminal Panel	38-3942	24.	Oscillator Transformer	32-3723	54.	Power Transformer (115 volts, 60 cycle)	32-8064
4.	External Aerial Socket	27-6145	25.	Mtg. Clip	28-5003		Shield	56-1525
5.	Aerial Transformer (Broadcast)	32-3724	26.	Resistor (47,000 ohms)	33-347339		Shield Base	56-1526
6.	Mtg. Clip	28-5002	27.	Mica Condenser (100 mmfd)	60-110257		Mtg. Screw	W-453
7.	Band Switch	42-1672	28.	Mica Condenser (250 mmfd)	20-025011		Power Transformer (115 volts, 25 cycle)	3903-ODG
8.	Mtg. Nut	W-2157	29.	Resistor (33,000 ohms)	33-333339	55.	Condenser (.01-.01 mfd)	1-3199
9.	Tuning Condenser	31-2547	30.	Electrolytic Condenser (4-4 mfd, 400 volts)	30-2477	56.	Power Cord	
10.	Drive Cord (Pointer)	31-2546	30A.	Electrolytic Condenser (4 mfd) (Part of 30)				
11.	Drive Cord (Tuning Cond.)	56-6152	31.	Resistor (1 mfd, 400 volts)	30-4527			
12.	Drive Shaft	27-4598	32.	3rd I. F. Transformer	32-3640			
13.	Mtg. Nut	28-3866	32A.	Mtg. Nut	W-1949			
14.	Drive Drum (Tuning Cond.)	38-9833	32B.	Secondary Compensator (Part of 32)				
15.	Mtg. Rubber	28-5001	32C.	Condenser (Part of 32A)				
16.	Mtg. Sleeve	28-5002	32D.	Condenser (Part of 32A)				
17.	Spring (Tuning Condenser Cord Drive)	28-5751	33.	Mica Condenser (100 mmfd)	60-110257			
18.	Spring (Pointer Drive Cord)	28-5853	34.	Resistor (1 megohm)	33-5443			
19.	Compensator (Broadcast, Aerial)	31-6438	35.	Resistor (2.2 megohms)	33-522339			
20.	Compensator (Short Wave—Aerial)		36.	Resistor (1 megohm)	33-510339			
21.	(Part of 7)		37.	Volume Control	33-5443			
22.	Aerial Transformer (Short Wave)	32-3725	38.	Mtg. Nut	W-2157			
23.	Mica Condenser (250 mmfd)	20-025011	39.	Condenser (.01 mfd, 400 volts)	30-4572			
24.	Condenser (.05 mfd, 200 volts)	30-4519	40.	Resistor (4.7 megohms)	33-547339			
25.	Resistor (4700 ohms)	33-247339	41.	Mica Condenser (100 mmfd)	60-110257			
26.	Resistor (2.2 megohms)	33-522339	42.	Condenser (.004 mfd, 500 volts)	30-4623			
27.	Mica Condenser (250 mmfd)	60-126257	43.	Resistor (200,000 ohms)	33-442339			
28.	Condenser (.05 mfd, 400 v.)	30-4519	44.	Resistor (470,000 ohms)	33-447339			
29.	1st I. F. Transformer	32-3734	45.	Condenser (.006 mfd, 400 volts)	30-4551			
30.	Mtg. Nut	W-1949	46.	Tone Control and Power Switch	45-1865			
31.	Primary Compensator (Part of 15)	33-247339	47.	Mtg. Nut	W-2157			
32.	Secondary Compensator (Part of 15)	33-333339	48.	Condenser (.02 mfd, 400 volts)	30-4516			
33.	Resistor (4700 ohms)	33-247339	49.	Output Transformer	36-1543-9			
34.	Resistor (33,000 ohms)	33-333339	50.	Speaker				
35.	2nd I. F. Transformer	32-3705	51.	Cone Assembly (For Speaker 36-1543)	36-4206			
36.	Mtg. Nut	W-1949	52.	Pilot Lamps	34-2064			
37.	Secondary Compensator (Part of 18)	30-4519	53.	Socket Assembly	76-1287			
38.	Condenser (.05 mfd, 200 volts)	30-4519	54.	Field Coil (Replace Speaker 36-1543)				
39.	Condenser (Part of 15)	60-010337	55.	Electrolytic Condenser (12 mfd, 400 volts)	30-2409			
40.	Mica Condenser (10 mmfd)	60-010337		Mtg. Clamp	56-1466			
41.	Mica Condenser (250 mmfd)	20-025011						
42.	Compensator (Oscillator—Broadcast)	31-6428						
43.	Compensator (Oscillator—S. W.)							
44.	(Part of 23)							

FIG. 3—PART LOCATIONS, UNDERSIDE OF CHASSIS, MODEL 42-340



SCHEMATIC DIAGRAM MODEL 42-345

The D. C. voltages indicated at the tube elements in the above diagram were measured with a 1000 ohms per volt voltmeter. Philco Model 027. Line voltage, 117 volts A. C. No signal being received—range switch broadcast.

REPLACEMENT PARTS—Model 42-345

Sch. No.	Description	Part No.	No. Sch.	Description	Part No.	Sch. No.	Description	Part No.
1.	Loop Aerial	76-1303	23.	Condenser (.05 mfd, 200 volts)	30-4519	56.	Field Coil (Replace Speaker)	36-1543
2.	Mtg. Screw	W-2071	24.	Condenser (.05 mfd, 200 volts)	30-4519	57.	Electrolytic Condenser (12 mfd, 400 volts)	30-2409
3.	Loop Terminal Panel	38-9942	25.	Resistor (4700 ohms)	33-247339	58.	Resistor (68 ohms)	33-068336
4.	External Aerial Socket	27-6145	26.	Condenser (.05 mfd, 400 volts)	30-4518	59.	Resistor (.220 ohms)	33-122436
5.	Silver Mica Condenser (250 mmfd)	20-025011	27.	Resistor (2.2 megohms)	60-352527	60.	Power Transformer (115 volts, 60 cycle)	32-8064
6.	Aerial Transformer (S. W.)	32-3764	28.	Mica Condenser (250 mmfd)	32-3734	61.	Power Transformer (115 volts, 25 cycle)	56-1525
7.	Mtg. Clip	28-5002	29.	I. F. Transformer	W-1949	62.	Shield	56-1526
8.	Tuning Condenser (Police)	31-2658	29A.	Primary Condenser (Part of 29)			Shield Base	W-453
9.	Drive Shaft	56-8152	29B.	Condenser (Part of 29)			Mtg. Screw	3903-ODG
10.	Drive Drum	W-2157	29C.	Secondary Condenser (Part of 29)			Washer (Chassis Mtg.)	W-410
11.	Drive Cord (Pointer)	38-9883	30.	Resistor (4700 ohms)	33-247339			
12.	Spring	31-2594	31.	Resistor (33,000 ohms)	33-333339			
13.	Drive Cord (Cond. Drive)	32-2766	32.	2nd I. F. Transformer	32-3705			
14.	Pointer	31-2546	32A.	Mtg. Nut	W-1949			
15.	Mtg. Screw	28-8751	32B.	Secondary Condenser (Part of 32)				
16.	Mtg. Sleeve	56-1856	32C.	Condenser (.05 mfd, 200 volts)	30-4519			
17.	Mtg. Rubber	W-2002	34.	3rd I. F. Transformer	32-2640			
18.	Aerial Transformer (Broadcast)	28-3806	34A.	Mtg. Nut	W-1949			
19.	Compensator (Aerial—Broadcast)	27-4596	34B.	Secondary Condenser (Part of 34)				
20.	Compensator (Aerial—S. W.)	32-3763	34C.	Resistor (Part of 34)				
21.	Compensator (Aerial—S. W.)		34D.	Condenser (Part of 34)				
22.	Oscillator Compensator (580 KC) (Part of 9)	42-1656	35.	Mica Condenser (100 mmfd)	60-110257			
23.	Mtg. Sleeve (Switch to Cabinet)	28-2258	36.	Resistor (2.2 megohms)	33-522339			
24.	Mtg. Sleeve (P. B. Switch, 3 required)	28-5665	37.	Resistor (1 megohm)	33-510339			
25.	Drive Screw	W-523	38.	Condenser (.1 mfd, 400 volts)	30-4527			
26.	Mtg. Screw	W-2002	40.	Electrolytic Condenser (4-mfd, 400 volts)	30-2477			
27.	Push-Button Compensating Condenser Strip	31-6372	40A.	Electrolytic Condenser (4 mfd, 400 volts) (Part of 40)				
28.	Band Switch	42-1684	41.	Mtg. Clip	56-1466			
29.	Mtg. Screw	W-2157	42.	Resistor (2200 ohms)	33-333339			
30.	Mica Condenser (10 mmfd)	60-010337	43.	Volume Control	33-222339			
31.	Oscillator Transformer (Broadcast—S. W.)		44.	Mtg. Nut	W-1949			
32.	Mtg. Clip	32-3762	44.	Condenser (.01 mfd, 400 volts)	30-4572			
33.	Compensator (Oscillator—Broadcast)	28-5002	45.	Resistor (4.7 megohms)	33-547339			
34.	Compensator (Oscillator—Police)	31-6425	46.	Mica Condenser (100 mmfd)	60-110257			
35.	Compensator (Oscillator—S. W.) (Part of 15)		47.	Resistor (220,000 ohms)	33-422339			
36.	Resistor (47,000 ohms)	33-347339	48.	Condenser (.004 mfd, 600 volts)	30-4623			
37.	Mica Condenser (100 mmfd)	60-110257	49.	Condenser (.003 mfd, 100 volts)	30-4469			
38.	Oscillator Transformer (Police)	32-3766	50.	Tone Control	33-5460			
39.	Mtg. Clip	28-5002	50.	Mtg. Nut	W-2157			
40.	Mica Condenser (2500 mmfd)	60-225324	51.	Resistor (470,000 ohms)	33-447339			
41.	Silver Mica Condenser (250 mmfd)	20-025011	52.	Condenser (.006 mfd, 400 volts)	32-1591			
42.	Mica Condenser (10 mmfd)	60-010337	53.	Output Transformer	32-8172			
43.	Mtg. Clip	32-3766	54.	Sparker	36-1543-9			
44.	Mica Condenser (2500 mmfd)	60-225324	55.	Cone Assembly (For Speaker)	36-4206			
45.	Silver Mica Condenser (250 mmfd)	20-025011		Pilot Lamps	34-2064			
46.	Mica Condenser (10 mmfd)	60-010337		Socket Assembly	76-1287			

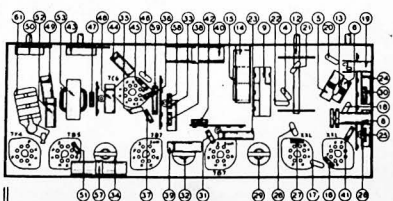
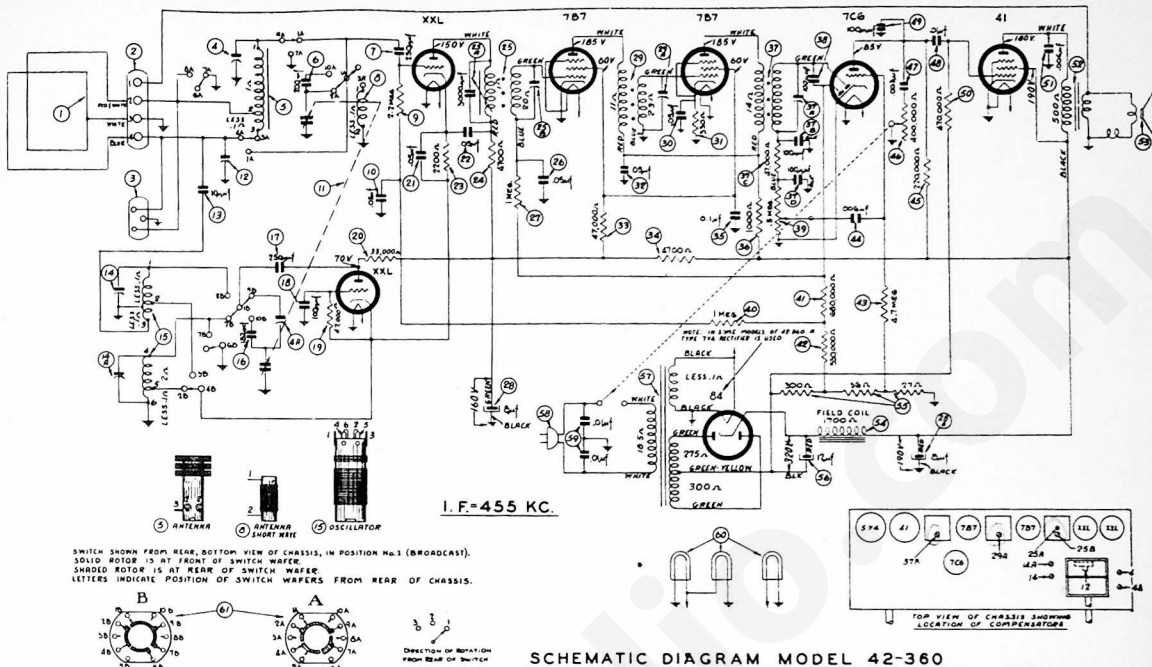


FIG. 4.—PART LOCATIONS, UNDERSIDE OF CHASSIS, MODEL 42-345



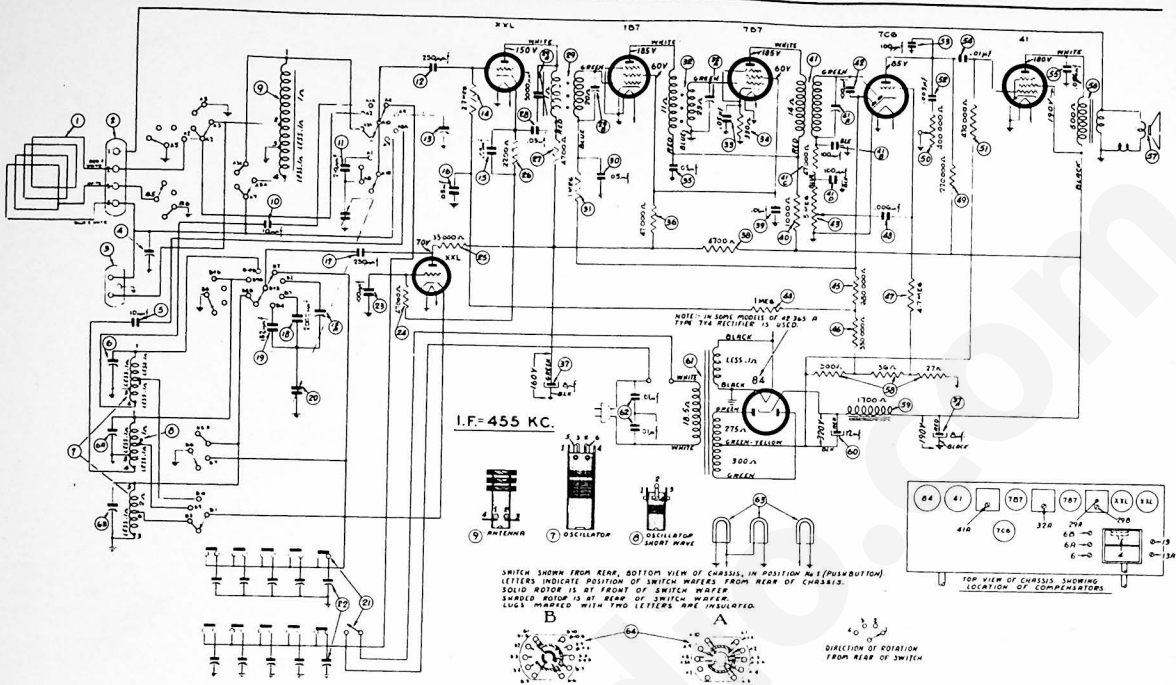
SCHEMATIC DIAGRAM MODEL 42-360

The D. C. voltages indicated at the tube elements in the above diagram were measured with a 1000 ohms per volt voltmeter. Philco Model 027. Line voltage, 117 volts A. C. No signal being received—range switch broadcast.

REPLACEMENT PARTS—Model 42-360

Sch. No.	Description	Part No.	Sch. No.	Description	Part No.	Sch. No.	Description	Part No.
1.	Loop Aerial	76-1271	25B.	Secondary Compensator (Part of 25)	W-1949	57.	Power Transformer (115 volts, 60 cycle)	32-8117
	Spring Washer	28-4186		Mtg. Nut	30-4519		Power Transformer (115 volts, 25 cycle)	L-3199
	Sleeve	28-3806	26.	Condenser (.05 mfd, 200 volts)	33-510339	58.	Power Cord	3903-DG
	Washer (3 required)	56-1545	27.	Resistor (1 megohm)	30-2476	59.	Filter Condenser (Power Line)	3L-2199
	Screw (Loop Mtg.)	W-288	28.	Electrolytic Condenser (S-S mfd, 400 volts)	32-3639	60.	Pilot Lamps (Dial)	34-2064
	Washer (3 required)	W-648	29.	2nd I. F. Transformer	W-1949		Pilot Lamps (Indicator)	34-2068
	Terminal	W-425	29A.	Secondary Compensator (Part of 29)	33-133386		Socket Assembly (Pilot Lamp Dial)	76-1316
2.	External Aerial Socket	38-9870	30.	Condenser (.05 mfd, 200 volts)	30-4519		Socket Assembly (Indicator Pilot Lamp)	76-1075
	Mtg. Rivet	27-6145	31.	Resistor (330 ohms)	30-4518		Band Switch	42-1673
3.	Compensator (Broadcast Aerial)	W-207	32.	Condenser (.05 mfd, 400 volts)	33-347339		Mtg. Nut	W-2157
4.	Compensator (Oscillator—Brdct.—530KC) (Part of 4)	31-6365	33.	Resistor (47,000 ohms)	33-247339	Miscellaneous Parts Bezel (Cabinet) W-4104 Mtg. Screw W-2071 Cabinet 10543-C Dial 27-5744 Pointer 56-1856 Spring Fastener 56-6127 Knob 54-4105 Indicator Arm and Link Assembly 76-1272 Rubber Corners (Chassis) 54-4015 Rubber Grommet (Chassis Mtg.) 27-4571 Screw (Chassis Mtg.) W-1845 Socket (5 prong) 27-6153 Socket (LOKAL TUBES) 27-6177 Mtg. Rivet W-239 Washer (Chassis Mtg.) 28-5114		
4A.	Mtg. Rivet	W-239	34.	Resistor (4700 ohms)	30-4527			
5.	Aerial Transformer (Brdct. Band)	32-3728	35.	Condenser (1 mfd, 400 volts)	33-210339			
	Mtg. Clip	28-5002	36.	Resistor (1000 ohms)	32-3640			
6.	Mica Condenser (200 mmfd)	30-1205	37.	3rd I. F. Transformer	W-1949			
7.	Mica Condenser (250 mmfd)	60-125157	37A.	Secondary Compensator (Part of 37)	60-110157			
8.	Aerial Transformer (S. W. Band)	32-3768	37B.	Condenser (100 mmfd) (Part of 37)	33-5451			
	Mtg. Clip	28-5002	37C.	Resistor (47,000 ohms) (Part of 37)	W-2157			
9.	Resistor (2.2 megohms)	33-522339	37D.	Condenser (100 mmfd) (Part of 37)	33-510339			
10.	Condenser (.05 mfd, 200 volts)	30-4519	37E.	Condenser (100 mmfd) (Part of 37)	33-463339			
11.	Tuning Condenser	31-2481	37F.	Condenser (100 mmfd) (Part of 37)	33-433339			
	Tuning Shaft	56-6141	38.	Condenser (100 mmfd)	33-547339			
	Washer	28-2043	39.	Volume Control	30-4591			
	Drive Drum	38-9882		Mtg. Nut	33-422339			
	Drive Cord (Pointer)	31-2597	40.	Resistor (1 megohm)	33-5463			
	Drive Cord (Tuning Cond.)	31-2400	41.	Resistor (680,000 ohms)	W-2157			
	Insulating Bushing	27-9437	42.	Resistor (330,000 ohms)	30-4572			
	Rubber Connector	27-9432	43.	Resistor (4.7 megohms)	60-110157			
	Mtg. Grommet	27-4596	44.	Condenser (.006 mfd, 400 volts)	33-447339			
	Mtg. Sleeve	28-3806	45.	Resistor (220,000 ohms)	30-4591			
	Spring (Cond. Drive Cord)	28-8751	46.	Tone Control	33-422339			
	Spring (Pointer Drive Cord)	28-8953	47.	Condenser (.003 mfd, 600 volts)	33-5463			
	Screw (Mtg. Cond.)	W-2002	48.	Condenser (.01 mfd, 400 volts)	30-4572			
12.	Compensator (S. W. Aerial)	31-6364	49.	Mica Condenser (100 mmfd)	60-110157			
13.	Mica Condenser (10 mmfd)	60-010337	50.	Resistor (470,000 ohms)	30-4591			
14.	Compensator (Oscillator—S. W.)	31-6364	51.	Condenser (.006 mfd, 400 volts)	32-8116			
14A.	Compensator (Oscillator—Broadcast) (Part of 14)	W-239	52.	Output Transformer	36-1513-3 or 36-1513-4			
	Mtg. Rivet	32-3727	53.	Speaker	36-4164			
15.	Oscillator Transformer	28-5003		Cone Assembly (For Speaker 36-1513-3)	36-4168			
	Mtg. Clip	30-1908		Cone Assembly (For Speaker 36-1513-4)	41-3541			
16.	Mica Condenser (182 mmfd)	60-125157		Cable (Speaker)	W-124			
17.	Mica Condenser (250 mmfd)	60-110157		Mtg. Nut (Speaker)	34.			
18.	Mica Condenser (100 mmfd)	33-347339		Field Coil (Replace Speaker)	33-3392			
19.	Resistor (47,000 ohms)	33-333339		Bias Resistor (27-36-300 ohms)	30-2471			
20.	Resistor (33,000 ohms)	30-4519		Electrolytic Condenser (12 mfd, 400 volts)				
21.	Condenser (.05 mfd, 200 volts)	30-4518						
22.	Condenser (.05 mfd, 400 volts)	33-222339						
23.	Resistor (2200 ohms)	33-247339						
24.	Resistor (4700 ohms)	32-3465						
25.	1st I. F. Transformer							
25A.	Primary Compensator (Part of 25)							

FIG. 5—PART LOCATIONS, UNDERSIDE OF CHASSIS, MODEL 42-360



The D. C. voltages indicated at the tube elements in the above diagram were measured with a 1000 ohms per volt voltmeter. Philco Model 027. Line voltage, 117 volts A. C. No signal being received—range switch broadcast.

REPLACEMENT PARTS—Model 42-365

Sch. No.	Description	Part No.	Sch. No.	Description	Part No.	No. Sch.	Description	Part No.
1.	Loop Aerial	76-1305	29A.	Primary Compensator (Part of 29)		61.	Power Transformer (115 volts, 40 cycles)	
	Sleeve (Mtg. Loop)	28-3806	29H.	Secondary Compensator (Part of 29)			Power Transformer (115 volts, 25 cycles)	32-8117
	Spring Washer	56-1545	30.	Condenser (.05 mfd, 200 volts)	30-4519	62.	Power Line Filter Condenser	3903-DG
	Spring Washer	56-1545	31.	Resistor (1 megohm)	33-510339	63.	Power Line Filter Condenser	34-2064
	Screw (Loop Mtg.)	W-285	32.	2nd I. F. Transformer	32-3639		Hot Lamp (Indicator)	34-2068
2.	Terminal Panel (Loop Aerial)	W-425	32A.	Secondary Compensator (Part of 32)	W-1949		Socket Assembly (Dial Light)	76-1316
3.	External Aerial Socket	38-9870	33.	Condenser (.05 mfd, 200 volts)	30-4519		Socket Assembly (Indicator)	76-1078
4.	Mtg. Rivet	27-6146	34.	Resistor (330 ohms)	33-133336		Light Shield	56-2194
5.	Compensator (S. W. Aerial)	38-9870	35.	Condenser (.05 mfd, 400 volts)	30-4518	64.	Band Switch	42-1683
6.	Mica Condenser (10 mmfd)	60-01-6384	36.	Resistor (47,000 ohms)	33-347339		Mtg. Nut	W-2157
6A.	Compensator (Oscillator—Police)	31-6374	37.	Electrolytic Condenser (8-X mfd)	30-2476			
6B.	Compensator (Oscillator—Broadcast)	28-5002	37A.	Electrolytic Condenser (8 mfd)				
7.	Oscillator Transformer (Broadcast—S. W.)	32-3756		Mtg. Clamp	56-1452			
	Mtg. Clip	28-5003	38.	Resistor (470 ohms)	33-247339			
8.	Oscillator Transformer (Police)	32-3757	39.	Condenser (.01 mfd, 400 volts)	30-4572			
9.	Mtg. Clip	28-5002	40.	Resistor (1000 ohms)	33-210339			
9A.	Aerial Transformer	32-3755	41.	3rd I. F. Transformer	32-3640			
	Mtg. Clip	28-5002	41A.	Secondary Compensator (Part of 41)	W-1949			
10.	Mica Condenser (10 mmfd)	60-010337	41B.	Condenser (100 mmfd) (Part of 41)				
11.	Silver Mica Condenser (210 mmfd)	30-1210	41C.	Resistor (47,000 ohms) (Part of 41)	33-347339			
12.	Mica Condenser (250 mmfd)	60-125157	41D.	Condenser (100 mmfd) (Part of 41)				
13.	Compensator (Aerial—Broadcast)	31-6401	42.	Mica Condenser (100 mmfd)	60-110157			
13A.	Compensator (Oscillator—580 KC)		43.	Volume Control	33-5451			
	(Part of 6)			Mtg. Nut	W-2157			
14.	Resistor (2.2 megohms)	33-522339	44.	Resistor (1 megohm)	33-510339			
15.	Condenser (.05 mfd, 200 volts)	30-4519	45.	Resistor (600,000 ohms)	33-468339			
16.	Condenser (.05 mfd, 200 volts)	60-125157	46.	Resistor (330,000 ohms)	33-433339			
17.	Mica Condenser (250 mmfd)	60-220234	47.	Resistor (4.7 megohms)	33-547339			
18.	Mica Condenser (2000 mmfd)	30-1208	48.	Condenser (.006 mfd, 400 volts)	30-4591			
19.	Mica Condenser (182 mmfd)	31-2581	49.	Resistor (220,000 ohms)	33-422339			
20.	Tuning Condenser	38-9883	50.	Tone Control	33-5459			
	Drive Drum	31-2597		Mtg. Nut	W-2157			
	Drive Cord (Pointer)	31-2400	51.	Resistor (470,000 ohms)	33-447339			
	Drive Cord (Tuning Cond.)	27-9437	52.	Condenser (.003 mfd, 600 volts)	30-4582			
	Drive Shaft	28-8955	53.	Condenser (100 mmfd)	60-110157			
	"C" Washer	27-4596	54.	Condenser (.01 mfd, 400 volts)	30-4572			
	Insulating Bushing	27-5432	55.	Condenser (.006 mfd, 400 volts)	30-4591			
	Grounding Spring	28-8953	56.	Output Transformer	36-1513-3 or 36-1513-4			
	Grommet (Mtg. Cond.)	28-3806	57.	Speaker				
	Rubber Connector (Tuning Cond.)			Cone Assembly (For Speaker 36-1513-3)	36-4164			
	Spring (Cond. Drive Cord)			Cone Assembly (For Speaker 36-1513-4)	36-4169			
	Spring (Pointer Drive Cord)			Mtg. Nut	W-1254			
	Sleeve (Mtg. Tuning Cond.)			Cable (Speaker)	41-3541			
21.	Push-Button and Power Switch Assembly	42-1687		Blas Resistor (27-360 ohms)	33-3392			
	Mtg. Sleeve	28-5685	58.	Field Coil (Replace Speaker 36-1513)	W-239			
	Mtg. Screw	W-529	59.	Field Coil (Replace Speaker 36-1513)				
	Mtg. Grommet	27-4596	60.	Electrolytic Condenser (12 mfd, 400 volts)	30-2471			
22.	Push-Button Compensator Assembly	31-6377		Mtg. Clamp	56-1452			
23.	Mica Condenser (100 mmfd)	60-110157						
24.	Resistor (47,000 ohms)	33-347339						
25.	Resistor (13,000 ohms)	33-333339						
26.	Resistor (2200 ohms)	33-222339						
27.	Resistor (4700 ohms)	33-247339						
28.	Condenser (.05 mfd, 400 volts)	30-4518						
29.	1st I. F. Transformer	32-3639						
	Mtg. Nut	W-1949						

