

Philco Radio & Television Corp.

	Model: 42-321	Chassis:	Year: Pre 1945		
	Power:	Circuit:	IF:		
	Tubes:				
	Bands:				
Resources					
Riders Volume 14 - PHILCO 14-18					
Riders Volume 14 - PHILCO 14-19					

MODELS 42-PT-2, 42-PT-4,

42-PT-7

MODELS 42-PT-10, 42-321

MODEL 42-1004

PHILCO RADIO & TELEVISION CORP.

ALIGNMENT FOR MODELS
42-PT-2, 42-PT-4, 42-PT-7
42-321, 42-PT-10

When aligning the R. F. paddles 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.

When adjusting the radio outside the cabinet the loop aerial should be placed in approximately the same position around or near the

chassis as when assembled. The aligning points on scale plate should also be used.

After connecting the aligning instruments adjust the compensators as shown in the tabulation below. Compensator locations are shown on the Schematic.

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

Operations in Order	SIGNAL GENERATOR		RECEIVER			SPECIAL INSTRUCTIONS
	Output Connections to Receiver	Dial Setting	Dial Setting	Control Setting	Adjust Compensators in Order 42-321, -PT-10 42-PT-2, -PT-4, -PT-7	
1	Ant. Section of tuning	455 K.C. Tuning Cond. Closed	540 K.C. Tuning Cond. Closed	Vol. Max.	10A, 10B, 14A, 14B 10B, 13A, 10A, 10B	Note B
2	Loop see above instructions	1600 K.C.	1600 K.C.	Vol. Max.	(1B, Note C) (1B, Note C)	Note A
3	Loop see above instructions	1500 K.C.	1500 K.C.	Vol. Max.	(1A, Note D) (1A, Note D)	

NOTE A—DIAL POINTER CALIBRATION—In order to adjust the receiver correctly, the pointer must be adjusted to track properly with the tuning condenser. To do this, turn the tuning condenser to the maximum capacity (plates fully meshed.) With the condenser in this position, set the tuning pointer on the first small line stamped in the scale plate on the left side. NOTES FOR MODELS 42-321, -PT-10

NOTE B—Before adjusting compensators, turn down (10B) to tight position. Then adjust the compensators for maximum output in the following order: 10A, 10B, 14A and 14B.

NOTE C—Turn tuning condenser until dial pointer is on the first small line stamped in the scale plate from right side of chassis. Adjust paddle (1B) to maximum at this point.

NOTE D—Turn tuning condenser until dial pointer is on the second small line stamped in the scale plate from right side of chassis. Adjust paddle (1A) to maximum at this point.

NOTES FOR MODELS 42-PT-2, -PT-4, -PT-7

NOTE E—Before adjusting compensators, turn down (10B) to tight position. Then adjust the compensators for maximum output in the following order: 10A, 10B, 10A and 10B.

NOTE F—When adjusting paddle outside of cabinet, turn tuning condenser until dial pointer is on the first small line stamped in the scale plate from right side of chassis. Adjust paddle (1B) to maximum at this point.

NOTE G—When adjusting paddle outside of cabinet, turn tuning condenser until dial pointer is on the second small line stamped in the scale plate from right side of chassis. Adjust paddle (1A) to maximum at this point.

MODEL 42-1004

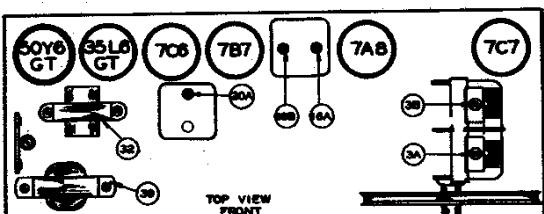


FIG. 1. LOCATIONS OF COMPENSATORS

When aligning the R. F. paddles 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.

When adjusting the radio outside the cabinet the loop aerial should be placed in approximately the same position around or near the chassis as when assembled. A paper aligning scale, Part No. 27-9985, is also attached to the metal dial plate for adjusting the radio outside of the cabinet. The scale is marked with three lines indicating from left to right—"Dial Calibration Point," "580 K.C." and "1500 K.C." After connecting the aligning instruments adjust the compensators as shown in fig. 1.

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

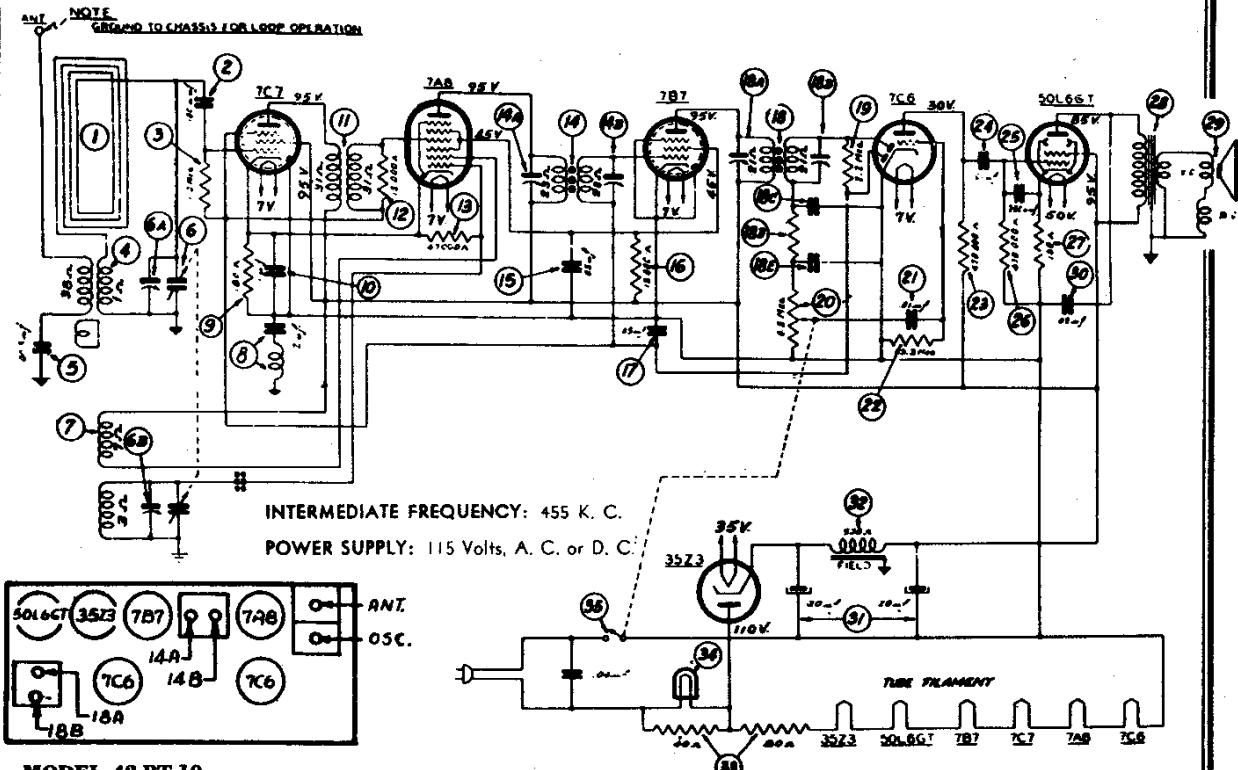
Operations in Order	SIGNAL GENERATOR		RECEIVER			SPECIAL INSTRUCTIONS
	Output Connections to Receiver	Dial Setting	Dial Setting	Control Setting	Adjust Compensators in Order	
1	Ant. Section of tuning	455 K.C. Tuning Cond. Closed	540 K.C. Tuning Cond. Closed	Vol. Max.	20A, 16B, 16A	
2	Loop see above instructions	1600 K.C.	1600 K.C.	Vol. Max.	3B, 3A	Note A

Operations in Order	SIGNAL GENERATOR MODEL 42-1006 CODE 122 RECEIVER					Special Instructions
	Output Connections to Receiver	Dial Setting	Dial Setting	Control Setting	Adjusted Compensators in Order	
1	Ant. Section of tuning	455 K.C. Tuning Cond. Closed	540 K.C. Tuning Cond. Closed	Vol. Max. Switch-Radio	22A, 21B, 21A	
2	Loop see above instructions	1600 K.C.	1600 K.C.	Vol. Max. Switch-Radio	3B, 3A	Note A

NOTE A—Dial Calibration: 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 small dot below 540 K.C.

MODELS 42-PT-10,
42-PT-321

PHILCO RADIO & TELEVISION CORP.

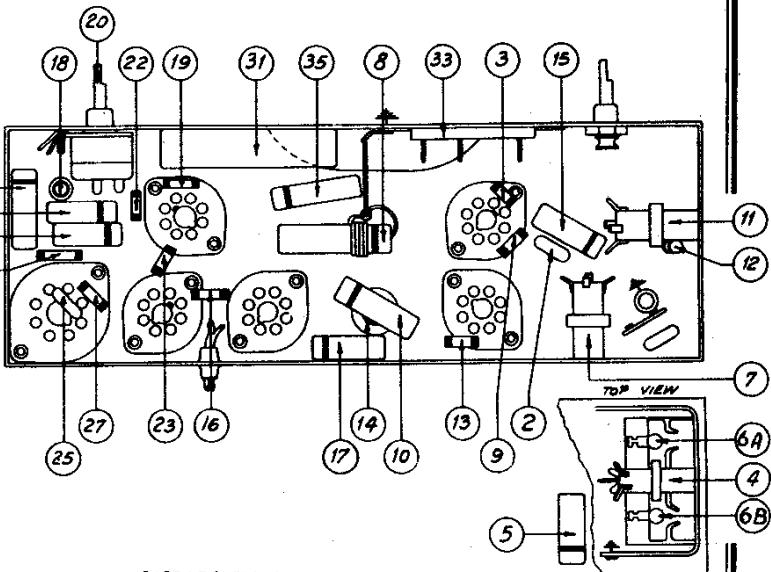


MODEL 42-PT-10

Volume control (20) Part No. 33-5469 list in the Service Bulletin is used on Model 42-321 only. The volume control for Model 42-PT-10 is Part No. 33-5434.

FOR ALIGNMENT SEE INDEX

SCHE. No.	DESCRIPTION	PART No.
1	Loop Aerial (42-321T).	76-1196
	Loop Aerial (PT-10) Part of Cabinet.	
2	Mica Condenser (.100 mmfd.)	40-110157
3	Resistor (.10 megohms)	33-510154
4	Aerial Transformer	32-3394
5	Condenser (.0015 mfd., 500 volts)	30-4621
6	Tuning Condenser	31-2527
	Pointer	56-2076
	Spring (Drive Cord)	28-8954
	Shaft Assembly (42-321)	31-2591
	Shaft Assembly (PT-10)	31-2531
	Drive Cord	31-2529
7	Oscillator Transformer	32-3613
8	Condenser and Choke Assembly	76-1198
9	Resistor (100 ohms)	33-118336
10	Condenser (.11 mfd., 200 volts)	30-4584
11	R. F. Transformer	32-3595
12	Resistor (15,000 ohms)	33-315339
13	Resistor (47,000 ohms)	33-347339
14	1st I. F. Transformer	32-3614
15	Condenser (.05 mfd., 200 volts)	30-4519
16	Resistor (15,000 ohms)	33-315339
17	Condenser (.05 mfd., 200 volts)	30-4519
18	2nd I. F. Transformer	32-3604
19	Resistor (2.2 megohms)	33-522339
20	Volume Control	33-5469
21	Condenser (.01 mfd., 400 volts)	30-4572
22	Resistor (3.3 megohms)	33-533339
23	Resistor (470,000 ohms)	33-447339
24	Condenser (.01 mfd., 400 volts)	30-4572
25	Mica Condenser (250 mmfd.)	40-125157
26	Resistor (470,000 ohms)	33-447339
27	Resistor (10 ohms)	33-113336
28	Output Trans. (for Speaker 36-1533-9)	32-8154
29	Cone Assembly (for Speaker 36-1533-9)	36-4190
30	Condenser (.02 mfd., 400 volts)	30-4516
31	Electrolytic Condenser (20-20 mfd.)	30-2382
32	Field Coil (Replace Speaker 36-1533-9)	
33	Resistor (Wirewound, 40-80 ohms)	33-3408
34	Filament Lamp	34-2068
35	Condenser (.04 mfd., 400 volts)	30-4119
	MISCELLANEOUS PARTS	
	Cabinet (42-321T)	10568A
	Cabinet (42-321TI)	10568B
	Cabinet (PT-10)	76-1195
	Cardboard Back (PT-10)	27-9817



PART LOCATIONS—UNDERSIDE OF CHASSIS

DESCRIPTION	PART No.	DESCRIPTION	PART No.
Cable (Power)	L-3199	Screw (Chassis Mounting) (42-321)	W-2065
Clip (R. F. Coil Mfg.)	28-5002	Screw (Chassis Mounting) (PT-10)	W-1921
Dial Scale (42-321)	76-1192	Socket (Local Tubes)	27-6177
Dial Scale (PT-10)	27-5474	Socket (Output Tube)	27-6174
Knob Assembly (42-321T)	54-4105	Socket Assembly (Pilot Lamp)	76-1177
Knob (42-321TI)	54-4143	Speaker	36-1533-9
Knob (PT-10)	54-4052	Washer Chassis Mounting	W-410

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