

# MODELS PT-29 and PT-31

## SPECIFICATIONS

Models PT-29 and PT-31 are five tube superheterodyne radios covering a frequency range from 540 to 1720 K. C. on the broadcast band and 2.3 to 2.5 megacycles (M. C.) on the local police range. These models are similar with the exception of the cabinets. The circuit diagram and parts list shown below applies to both models.

INTERMEDIATE FREQUENCY: 470 K. C.

POWER SUPPLY: The receivers are designed for operation on either a 115 volt alternating current (A. C.) or 115 volt direct current (D. C.)

Note—If no sound is heard on D. C. circuits after the tubes are sufficiently heated, reverse the plug of the cable in the

outlet. If a slight hum is heard when operating on an A. C. power supply, the power plug should be reversed.

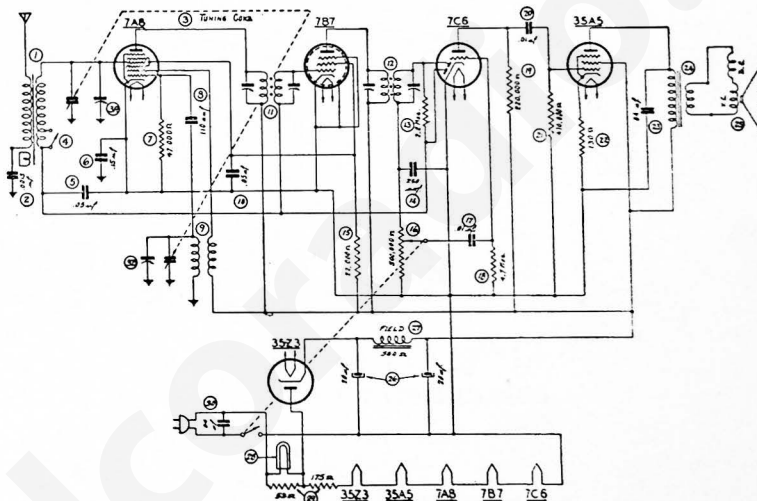
PHILCO TUBES USED: One 7A8, converter; one 7B7, I. F. amplifier; one 7C6, 2nd detector, 1st audio, A. V. C.; one 35A5, audio output and one 35Z3, rectifier.

AERIAL: A twenty foot indoor aerial wire is attached to the radio for average receiving conditions. To obtain best reception in apartment houses, hotels or steel reinforced buildings, the Philco Utility Aerial, Part No. 40-6384 is recommended. A ground is not necessary on these models.

ALIGNING PROCEDURE: The instructions for adjusting the R. F. and I. F. compensators will be found on page 7.

### PRODUCTION CHANGE

To stabilize the oscillator circuit and prevent oscillation at the high frequency end of the tuning dial, the oscillator grid leak was changed from 47000 ohms to 22000 ohms.



## REPLACEMENT PARTS

SCHE. No.	DESCRIPTION	PART No.	SCHE. No.	DESCRIPTION	PART No.	SCHE. No.	DESCRIPTION	PART No.
1	Antenna Transformer	32-3164	20	Tubular Condenser (.01 mf., 400 v.)	30-45728		Cabinet (PT-31)	10364B
2	Tubular Condenser (.0015 mf., 200 v.)	30-45558	21	Resistor (47,000 ohms, ¼ watt)	33-447154		Cardboard Back (PT-29)	27-9511
3	Tuning Condenser	31-2427	22	Resistor (130 ohms, ¼ watt)	33-113336		Cardboard Back (PT-31)	27-9545
4	Switch	42-1400	23	Tubular Condenser (.04 mf., 400 v.)	30-41198		Cone Assembly	
5	Tubular Condenser (.05 mf., 200 v.)	30-45198	24	Output Transformer			(for Speaker 36-1469-9)	36-4113
6	Tubular Condenser (.15 mf., 400 v.)	30-45058	25	Part of Speaker No.	36-1469		(for Speaker 36-1469-1)	36-4115
7	Resistor (47,000 ohms, ¼ watt)	33-347154	26	Speaker	36-1469		(for Speaker 36-1469-2)	36-4132
8	Mica Condenser (110 mmf.)	30-1130	27	Electrolytic Condenser			Dial	27-5556
9	Oscillator Transformer	32-3152	28	(20-20 mf., 150 v.)	30-2382		Dial Drive Shaft	31-2355
10	Tubular Condenser (.05 mf., 200 v.)	30-45198	29	Field Coil			Dial Drive Cord	31-2358
11	1st I. F. Transformer	32-3149	27	Part of Speaker	36-1469		Dial Window	27-5472
12	2nd I. F. Transformer	32-3150	28	Pilot Lamp	34-2068		Grille Cloth and Gasket	318-1120
13	Resistor (2.2 meg., ¼ watt)	33-522154	29	Line Resistor	33-3367		Knob Assembly	27-4809
14	Mica Condenser (250 mmf.)	61-0033	30	Tubular Condenser (.04 mf., 400 v.)	30-41198		Knob Assembly	27-4810
15	Resistor (22,000 ohms, ¼ watt)	33-322334					Pointer	27-4891
16	Volume Control (500,000 ohms)	33-5306					Snap Fastener	56-1387
17	Tubular Condenser (.01 mf., 200 v.)	30-44798					Speaker	36-1469
18	Resistor (4.7 meg., ¼ watt)	33-547154					Spring (Drive Cord)	28-8954
19	Resistor (220,000 ohms, ¼ watt)	33-422154					Socket Assembly (Pilot Lamp)	38-9825
							Socket (Tubes)	27-6130

### MISCELLANEOUS PARTS

Cable	L-3199
Cabinet (PT-29)	10364A