# MODELS PT-25, PT-27, Codes 121-122; and PT-39 

## SPECIFICATIONS

CIRCUIT DESIGN: Models PT-25, Codes 121 and 122, Pt-27, Codes 121 and 122, and PT-39 are five tube superheterodyne radios covering a freguency range from 540 to 1720 K . C. These models are similar with the exception of the cabinets. Codes 121 and 122 of Models PT-25 and PT-27 differ also in the type of cabinet used.
The circuit diagram and parts list shown below applies to all 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 using an A. C. power supply, the power plug should also be reversed.
PHILCO TUBES USED: One 7A8, converter; one 7B7, I. F. amplifier; one 7C6, 2nd detector, 1 st audio, A. V. C.; one 35 A 5 , audio output and one $35 \mathrm{Z3}$, 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 CHANGES

## MODELS PT-25, PT-27

The cabinet, dial and several parts were changed on these models. The code number was also changed from 121 to 122 . These changes are as follows.
MODEL PT-25
Code 121 Code 122

|  | Code 12! | Code 122 |
| :---: | :---: | :---: |
| Cabinet | .10304A | 10455 A |
| Baffle and Cloth Assembly | 40.6520 | 40-6520 |
| Dial | 27-5553 | 27-5572 |
| Tuning Condenser | 31-2427 | 31.2447 |
| Instructions | 39-6508 | 39-6568A |
| MODEL PT. 27 |  |  |
| Cabinet | 10364B | 10455B |
| Baffle and Cloth Assembl | . . $40-6520$ | 40.6520 |
| Dial | 27.5553 | 27.5572 |
| Instructions | .39-6503 | 39.6508. |
| Knob Assembly | 27.4810 | 27.4950 |
| Tuning Condenser | 31-2427 | 31.2447 |


| SCHE. | DESCRIPTION | PART No. |
| :---: | :---: | :---: |
| 1 | Antenna Transformer | 51 |
| 2 | Tutular Condenser ( .0015 mf ., 200 | 30-4555S |
| 3 | Tuning Condenser (Code 121) | 31-2427 |
|  | Tuning Condenser (Code 122) | 31-2447 |
| 42 | Tubular Condenser ( .05 mf ., 200 V .) | 9S |
| 5 | Tubular Condenser ( .15 mf ., 400 V .) | .30-4505S |
| 6 | Resistor ( 47,000 ohms, $1 / 4$ watt) | 33-347154 |
| 7 | Mica Condenser ( 110 mmf .) | .30-1130 |
| 8 | Osclllator Transformer | 32-8153 |
| 9 | Tubular Condenser ( .05 mf , 200 | . $30-45198$ |
| 10 | 1st I. F. Transtormer | .32-3149 |
| 11 | 2nd I. F. Transformer | .32-3150 |
| 12 | Resistor 2.2 meg., $1 / 4$ watt) | 33-522154 |
| 13 | Mica Condenser ( 250 mmf .) | .61-0033 |
| 14 | Reslstor (22,000 obms, 1/2 watt) | 33-322334 |
| 15 | Volume Control ( 500,000 obms) | . .33-5308 |
| 16 | Tubular Condenser ( $.01 \mathrm{mf} ., 200 \mathrm{~V}$.) | . .30-44798 |
| 17 | Resistor ( $4.7 \mathrm{meg} ., 1 / 4$ watt) | . 547154 |
| 18 | Resistor (220,000 ohms, 1/4 watt) | . $33 \cdot 422154$ |
| 19 | Tubular Condenser ( .01 mf ., 400 V.$)$ | ..30-4572S |
| 20 | Resistor ( 470,000 ohms, $1 / 4$ watt) | 33-447154 |
| 21 | Reslstor (130 ohms, $1 / 2 \mathrm{wat}$ ) | 33-113336 |

## REPLRCEMENT PERTS

| $\begin{aligned} & \text { SCHE. } \\ & \text { No. } \end{aligned}$ | DESCRIPTION PART |
| :---: | :---: |
| 22 | Tubular Condenser ( $.04 \mathrm{mf} ., 400 \mathrm{~V}$ ) ) ...30-4119S |
| 23 | Output Transformer |
|  | Part of Speaker No. 36-1469-1..32-8047 |
|  | Part of Speaker No. 30-1469-9..32-8044 |
|  | Part of Speaker No. 36-1469-2..32-s044 |
| 24 | Speaker .............................36-1469 |
| 25 | Tubular Condenser (. $04 \mathrm{mf} ., 400 \mathrm{~V}$.$) ...30-41198$ |
| 26 | Electrolytic Condenser <br> (20-20 mf., 150 V.$)$ |
| 37 | Fleld Coll ..........Part of Speater No. 36-1469 |
| 28 | Pllot Lsmp ...........................34-2068 |
| 29 | LIne Resistor ......................... $33-3367$ |
|  | MISCELLANEOUS PARTS |
|  | Cabinet (PT-25, Code 121)......... 10304A |
|  | Cabinet (PT.27, Code 121).........10304B |
|  | Cabinet (PT-25, Code 122)........ 10455A |
|  | Cabinet (PT-27, Code 122)........ 10455B |
|  | Cabinet (PT-39, Code 121)......... 10448A |
|  | Cardboard Back (PT-25, PT-27)...27-9511 |
|  | Cardboard Back (PT-39).......... 27.9559 |



Cabinet (PT.25, Code 121)......... 10304 A Cabinet (PT-27, Code 121) .........10304B Cabuet (PT-25, Code 122)...........10455A Cabinet (PT-39, Code 121)......... 10448A Cardboard Back (PT 39) .......... 27.9559

