



Models 403, 404, 40-372

SPECIFICATIONS

MODELS 403, 404, 40-372

TYPE OF CIRCUIT: Philco Models 403, 404 and 40-372 are all four-tube, battery-operated superheterodyne radios intended for standard broadcast reception. Model 404 has the additional feature of a built-in record player.

TUNING RANGE: 540 to 1600 K.C.

INTERMEDIATE FREQUENCY: 460 K.C.

PHILCO TUBES USED: 1 - 1A7EG, 1st Detector and Oscillator; 1 - 1N5EG, I.F. Amplifier; 1 - 1H5G, 2nd Detector, A.F. Amplifier and Automatic Volume Control; and 1 - 1A5EG Power Output tube.

BATTERIES REQUIRED: These models require $1\frac{1}{2}$ volts of "A" power and 90 volts of "B" power; This power is supplied from one "A" battery and two "B" batteries. Any of the following makes may be used:

	<u>"A" Battery</u>	<u>"B" Battery</u>
Burgess Battery -	4FAPI	5308
General Dry Battery -	144	3021
Eveready Battery -	742	762

BATTERY CURRENT: Models 403, 404 and 40-372 have an "A" drain of 250 M.A. and a "B" drain of 8.0 M.A. each.

ALIGNMENT OF COMPENSATORS

EQUIPMENT REQUIRED

- (1) Signal Generator - Philco Model 177 Signal Generator which has a fundamental frequency range from 115 to 32,500 K.C., is the correct instrument for this purpose.
- (2) Output Meter - Philco Model 028 Circuit Tester incorporates a sensitive output meter and is recommended.
- (3) Philco Fibre Handle Screwdriver, part #45-2610, and fibre wrench, part #7696.

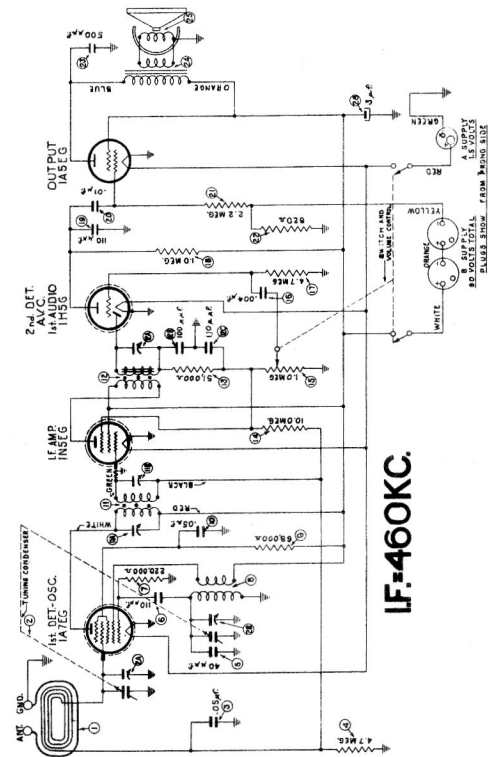
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OPERATIONS IN ORDER	SIGNAL GENERATOR		R E C E I V E R			SPECIAL INSTRUCTIONS
	Output Connections	Dial Setting	Dial Setting	Control Setting	Adjust Compensators	
1	High side to 1A7EG grid cap	460 K.C.	580 K.C.	Vol. Max.	12A, 11B, 11A	See Note A
2	Use loop on Signal Generator	1500 K.C.	1500 K.C.	Vol. Max.	2B, 2A	Note B, C.

NOTE A: When adjusting the I.F. padders, the high side of the Signal Generator is connected through a .1 mfd. condenser to the grid cap of the 1A7EG tube. The ground side of the Signal Generator is connected to the ground lead of the receiver.

NOTE B: DIAL CALIBRATION: Before adjusting the R.F. padders, the dial must be aligned to track properly with the tuning condenser. To adjust the dial, proceed as follows: With the tuning condenser in the closed position (maximum capacity) set the dial pointer on the small dot below 550 K.C.

NOTE C: When aligning the R.F. Padders a loop is made of a few turns of wire and attached to the output terminals of the signal generator, and located near the receiver loop in the cabinet.



Schematic Diagram Model 403

REPLACEMENT PARTS - MODEL 403

OF CHASSIS

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No.

Padder Layout

DESCRIPTION

Part
No.

1	Loop Assy.	40-5421
2	Tuning Cond. (.05 Mfd.)	31-2403
3	Resistor (4.7 Meg., $\frac{1}{2}$ watt)	30-4519
4	Mica Condenser (.40 Mfd.)	33-54734
5	Mica Condenser (.40 Mfd.)	30-1095
6	Mica Condenser (.110 Mfd.)	30-1031
7	Resistor (220,000 ohms, $\frac{1}{2}$ watt)	33-42234
8	Oscillator Transformer, $\frac{1}{2}$ watt	32-3274
9	Resistor (68,000 ohms, $\frac{1}{2}$ watt)	33-35634
10	Tubular Condenser (.05 Mfd.)	30-4144
11	1st I.P. Transformer	32-31013
12	2nd I.P. Transformer	32-3176
12C	Mica Condenser (.110 Mfd.)	30-1031
13	Resistor (51,000 ohms, $\frac{1}{2}$ watt) Part of (12)	33-35134
14	Resistor (10.0 Meg., $\frac{1}{2}$ watt)	33-61034
15	Volume Control (1.0 Meg.) and switch	33-5310
16	Tubular Condenser (.004 Mfd.)	30-4578
17	Resistor (4.7 Meg., $\frac{1}{2}$ watt)	33-54734
18	Resistor (1.0 Meg., $\frac{1}{2}$ watt)	33-51034
19	Mica Condenser (.110 Mfd.)	30-1031
20	Tubular Condenser (.01 Mfd.)	30-4572
21	Resistor (2.2 Meg., $\frac{1}{2}$ watt)	33-52234
22	Resistor (820 ohms, $\frac{1}{2}$ watt)	33-180336
23	Mica Condenser (500 Mfd.)	30-4592
24	Output Transformer (Part of Speaker)	36-4090
25	Cone & Voice Coil Assy (Part of Speaker)	30-2359
26	Electrolytic Condenser (3 Mfd.)	30-1114
36-1482	Complete Speaker	
36-1451	Bezel	
36-1529	Scale	
27-5542	Drive Cord	
34-2318	Spring	
58-3954	Pointer	
27-4565	Knob	
31-4322	Shaft	
27-6087	Tube Socket (Total)	
27-6087	Battery & Speaker Cable	
41-3453		
30-2359		
33-520344		
33-180336		
30-4592		
36-4090		
30-2359		
42-1501		
33-520344		
33-351344		
30-4119		
33-5033		
32-3036		
27-5434		
31-2321		
36-1451		
33-2039		
31-2394		
56-1252		
56-1415		
35-1162		
218-1047		
28-5185		
27-6087		
28-8751		
31-2324		
35-2038		

Miscellaneous Parts