

PARTS LIST AND SERVICE INFORMATION FOR PHILCO-TROPIC MODELS 3472 AND 3123

NOTE: Part numbers identified by an asterisk (*) are general replacement items. These numbers may not be identical with those on factory parts. Also, the electrical values of some replacement items may differ from the values indicated in the schematic diagram and parts list. The values substituted in any case are so chosen that the operation of the equipment will be unchanged. When ordering replacements, use only the "Service Part No."

Reference Symbol	Description	Service Part No.	Reference Symbol	Description	Service Part No.
C1	Condenser, tuning gang, 2-section	31-2761	R7	Resistor, grid return, 390,000 ohms	66-4398340*
C2	Condenser, trimmer assembly, 7-section	31-6414-8	R8	Resistor, cathode bias, 22,000 ohms	66-3228340*
C2A	Condenser, trimmer, oscillator (SW4)	Part of C2	R9	Resistor, a-v-c filter, 2.2 megohms	66-5228340*
C2B	Condenser, trimmer, oscillator (SW3)	Part of C2	R10	Resistor, diode load, 330,000 ohms	66-4338340*
C2C	Condenser, trimmer, oscillator (SW2)	Part of C2	R11	Resistor, plate dropping, 22,000 ohms	66-3228340*
C2D	Condenser, trimmer, oscillator (SW1)	Part of C2	R12	Resistor, cathode bias, 4.7 ohms	66-9478240*
C2E	Condenser, trimmer, aerial (BC)	Part of C2	R13	Resistor, diode filter, 47,000 ohms	Part of Z2
C2F	Condenser, trimmer, aerial (SW2)	Part of C2	R14	Resistor, grid return, 10 megohms	66-6108340*
C2G	Condenser, trimmer, aerial (SW1)	Part of C2	R15	Resistor, plate load, 220,000 ohms	66-4228340*
C3	Condenser, trimmer assembly, 4-section	31-6414-7	R16	Tone control, 5 megohms (includes S1)	33-5535-32
C3A	Condenser, trimmer, aerial (SW3)	Part of C3	R17	Resistor, tone compensation, 68,000 ohms	66-3688540*
C3B	Condenser, trimmer, aerial (SW4)	Part of C3	R18	Volume control, 2 megohms (tap at 1 megohm)	33-5566-25
C3C	Condenser, trimmer, oscillator (BC)	Part of C3	R19	Resistor, grid return, 470,000 ohms	66-4478340*
C3D	Condenser, padder, oscillator (BC)	Part of C3	R20	Resistor, bias load, 2200 ohms	66-2228340*
C4	Condenser, d-c blocking, 100 μ f.	62-110001001	R21	Resistor, filter, 330 ohms	33-1334-8
C5	Condenser, screen by-pass, .047 μ f.	45-3505-45*	R22	Resistor, filter, 1000 ohms	66-2105350*
C6	Condenser, a-v-c by-pass, .047 μ f.	45-3505-45*	R23	Resistor, feedback, 220,000 ohms	66-4228340*
C7	Condenser, d-c blocking, 100 μ f.	62-110001001	R24	Resistor, grid return, 470,000 ohms	66-4478340*
C8	Condenser, fixed padder, 310 μ f.	30-1220-11	R25	Resistor, grid return, 470,000 ohms	66-4478340*
C9	Condenser, d-c blocking, .047 μ f.	45-3505-45*	R26	Resistor, cathode bias, 390 ohms	66-1395340*
C10	Condenser, fixed padder, 310 μ f.	30-1220-11	R27	Resistor, plate load, 22,000 ohms	66-3228340*
C11	Condenser, fixed padder, 2400 μ f.	60-20245314	R28	Resistor, cathode bias, 22,000 ohms	66-3228340*
C12A	Condenser, trimmer, 1st i-f pri.	Part of Z1	R29	Resistor, feedback, 150 ohms	66-1158340*
C12B	Condenser, trimmer, 1st i-f sec.	Part of Z1	S1	Switch, on-off	Part of R16
C13A	Condenser, trimmer, 2nd i-f pri.	Part of Z2	S2	Switch, voltage change-over	42-1569
C13B	Condenser, trimmer, 2nd i-f sec.	Part of Z2	T1	Transformer, power	32-8448
C13C	Condenser, by-pass, 100 μ f.	Part of Z2	T2	Transformer, output	32-8503
C13D	Condenser, by-pass, 100 μ f.	Part of Z2	T3	Transformer, aerial (BC, SW1, and SW2)	32-4494
C14	Condenser, high cut, 220 μ f.	62-122001011	T4	Transformer, aerial (SW3 and SW4)	32-4493
C15	Condenser, input divider, .003 μ f.	45-3505-55	T5	Transformer, oscillator (BC, SW1, and SW2)	32-4492
C16	Condenser, line filter, .01 μ f.	45-3505-41*	T6	Transformer, oscillator (SW3 and SW4)	32-4491
C17	Condenser, line filter, .01 μ f.	45-3505-41*	W1	Line cord	L-2183
C18	Condenser, tone compensation, high cut, .01 μ f.	45-3505-41*	WS	Switch, band selector, 4-wafer	42-1960
C19	Condenser, high treble cut, 150 μ f.	62-115009021	Z1	Transformer, 1st i-f	32-4345
C20	Condenser, bass compensation, .0068 μ f.	45-3505-40*	Z2	Transformer, 2nd i-f	32-4346-2
C21	Condenser, electrolytic, 4-section	30-2570-57	MISCELLANEOUS		
C21A	Condenser, electrolytic, filter, 40 μ f., 300v	Part of C21	Description	Service Part No.	
C21B	Condenser, electrolytic, filter, 20 μ f., 300v	Part of C21	Cabinet Hardware		
C21C	Condenser, electrolytic, filter, 10 μ f., 300v	Part of C21	Back, cabinet (radio, Model 3123)	54-8128	
C21D	Condenser, electrolytic, filter, 10 μ f., 300v	Part of C21	Catch, bullet (2 required)	45-6002*†	
C22	Condenser, audio coupling, .047 μ f.	45-3505-45*	Dome, mtg. foot (4 required)	27-4911	
C23	Condenser, audio coupling, .047 μ f.	45-3505-45*	Dome, mtg. foot (4 required)	45-6190*†	
C24	Condenser, feedback, .047 μ f.	45-3505-45*	Door pull	56-8980†	
C25	Condenser, output coupling, .047 μ f.	45-3505-45*	Hinge, knife, r.h., mahogany (2 required)	56-8479-1†	
C26	Condenser, output plate by-pass, .0033 μ f.	45-3505-89*	Hinge, knife, l.h., light (2 required)	56-8479-3†	
C27	Condenser, output coupling, .047 μ f.	45-3505-45*	Hinge, knife, l.h., mahogany (2 required)	56-8479†	
C28	Condenser, electrolytic, cathode by-pass, 25 μ f.	30-2417-9	Hinge, knife, l.h., light (2 required)	56-8479-2†	
C29	Condenser, feedback, .015 μ f.	45-3505-42*	Knob, volume and tuning	54-4718-19†	
C30	Condenser, phono input, .001 μ f.	45-3505-52*	Knob, volume and tuning	54-4718-14	
C31	Condenser, electrolytic, cathode by-pass, 25 μ f.	30-2417-9	Knob, band selector and off-on tone	54-4718-18†	
I1	Pilot lamp	34-2605	Knob, band selector and off-on tone	54-4718-17	
I2	Jewel indicator lamp	34-2068†	Pilot-lamp assembly	27-6233-53*	
J1	Socket, phono input	27-6252	Screw, cabinet back mtg.	1W25345FE11†	
J2	Socket, phono motor	27-6552-7	Strike plate, mahogany	45-6003†	
LS1	Loud-speaker		Strike plate, light	45-6003-1†	
	Model 3472	36-1611-9†	Speaker mtg. bolt (4 required)	W700-2†	
	Model 3123	36-1632-3	Speaker mtg. grommet (4 required)	54-4239†	
R1	Resistor, grid return, 1 megohm	66-5108340*	Washer, speaker, mtg. (4 required)	27-7467†	
R2	Resistor, oscillator grid return, 33,000 ohms	66-3338340*	Conversion kit, phono, 60 to 50 cycles	40-8680†	
R3	Resistor, screen dropping, 18,000 ohms	66-3184340*	Driver (45-r.p.m. records)	56-8885†	
R4	Resistor, cathode bias, 1000 ohms	66-2108340*	Dial Scale and Scale-Mounting Parts		
R5	Resistor, cathode bias, 120 ohms	66-1128340*	Backplate assembly, scale	76-6713	
R6	Resistor, grid load, 6.8 megohms	66-5688340*	Band, rubber (2 required)	54-4480	
			Drive cord (25-ft. spool)	45-8750*	
			Pointer	56-5630-27	
			Scale, dial	54-5122	

REPLACEMENT PARTS LIST (Cont.)

Description	Service Part No.	Description	Service Part No.
Scale, regional (diffusing panel)	54-5123	Spring, changer mtg., top (3 required)	56-7059-1FJ47†
Spring, scale mounting (4 required)	56-3841	Spring, changer mtg., bottom (3 required)	56-7059FA9†
Spring, gang and pointer	56-3066	Sleeve, changer mtg. (3 required)	54-7798†
Strap, scale mounting (2 required)	56-2234-1	Nut, speed changer mtg. (3 required)	W2554†
Strap, scale mounting	56-4756-FE11	Frame, changer drawer	76-6257†
Screw, scale mounting (6 required)	1W25328FE11	Frame, record changer	76-6264†
Plug, continental adapter	L-3275*	Knob, changer drawer	56-8496†
Inserts, 45-r.p.m. records (kit of 36)	45-9575*	Rail, frame, l.h.	76-6258†
Shaft, drive	31-2738-10	Rail, frame, r.h.	76-6259†
Socket, miniature	27-6203		
Socket, Loktal	27-6207		

†Indicates parts used only on radio-phonograph, Model 3472.

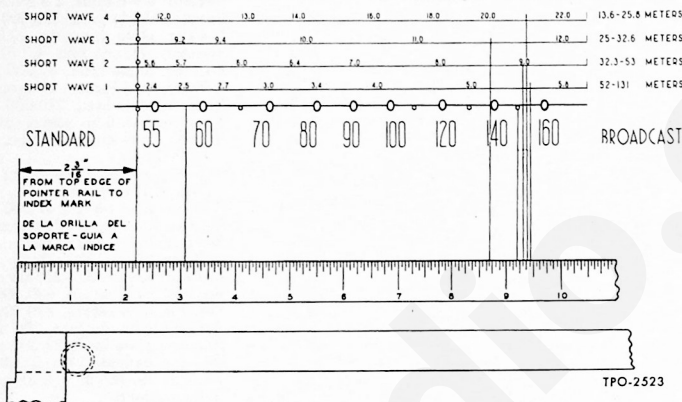


Figure 1. Dial-Calibration Measurements
Figura 1. Medidas para la Calibración del Cuadrante

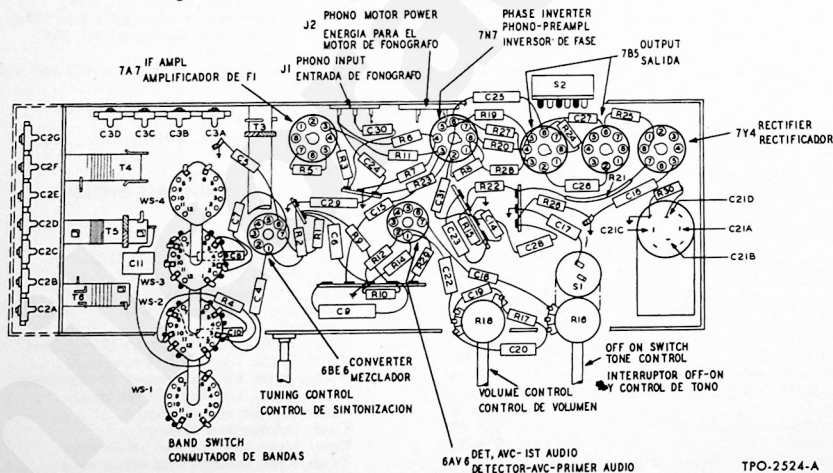


Figure 2. Symbolized Chassis, Showing Parts Placement
Figura 2. Vista del Chasis, Mostrando la Ubicación de las Partes

ALIGNMENT PROCEDURE

CAUTION—Before connecting the radio to the power source, make certain that the voltage change-over switch, located on the rear of the chassis, is correctly set for the line voltage.

DIAL POINTER—With the tuning condenser fully meshed, adjust the dial pointer to coincide with the index mark just to the left of "55" (BC). See figure 1.

ALINEAMIENTO

PRECAUCION—Antes de conectar el radio a la fuente de energía, asegúrese de que el conmutador para cambio de voltaje, situado en la parte posterior del chasis, está en la posición correcta para el voltaje de línea.

INDICADOR DEL CUADRANTE—Con el condensador de sintonización completamente cerrado, ajústese el indicador del cuadrante de modo que coincida con la marca índice a la izquierda del "55" (BC). Véase la figura 1.

SIGNAL GENERATOR—Connect the ground lead to the chassis, and the output lead as indicated in the chart. Use modulated output.

RADIO CONTROLS—Set the volume control to maximum, and the tone control counterclockwise (without turning set off). Set the band switch, tuning control, and signal generator as indicated in the chart.

OUTPUT METER—Connect across the speaker voice-coil terminals.

OUTPUT LEVEL—During alignment, the signal generator output must be attenuated to hold the output-meter indication below 1.25 volts.

NOTE: Allow 15 minutes for the radio and signal generator to warm up before starting the alignment.

GENERADOR DE SEÑALES—Conéctese el cable de tierra al chasis, y el cable de salida como se indica en la tabla. Use salida modulada.

CONTROLES DEL RADIO—Gírese el control del volumen al máximo, y el control de tono en su posición máxima hacia la izquierda (sin apagar el radio). Pónganse el conmutador de bandas, el control de sintonización y el generador de señales como se indica en la tabla.

MEDIDOR DE SALIDA—Conéctese a los terminales de la bobina de voz.

INTENSIDAD DE LA SALIDA—Durante el alineamiento, atenúese la salida del generador de señales de modo que la indicación sea siempre menor de 1.25 voltios.

NOTA: Permítase que el radio y el generador de señales se calienten por 15 minutos antes de comenzar el alineamiento.

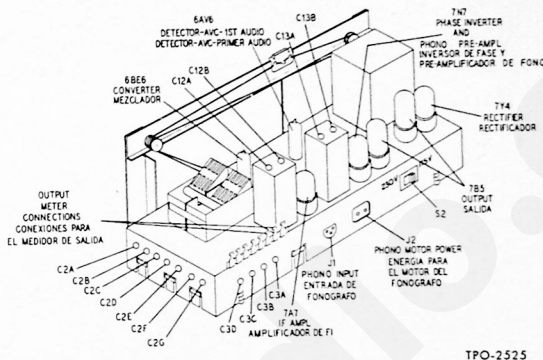
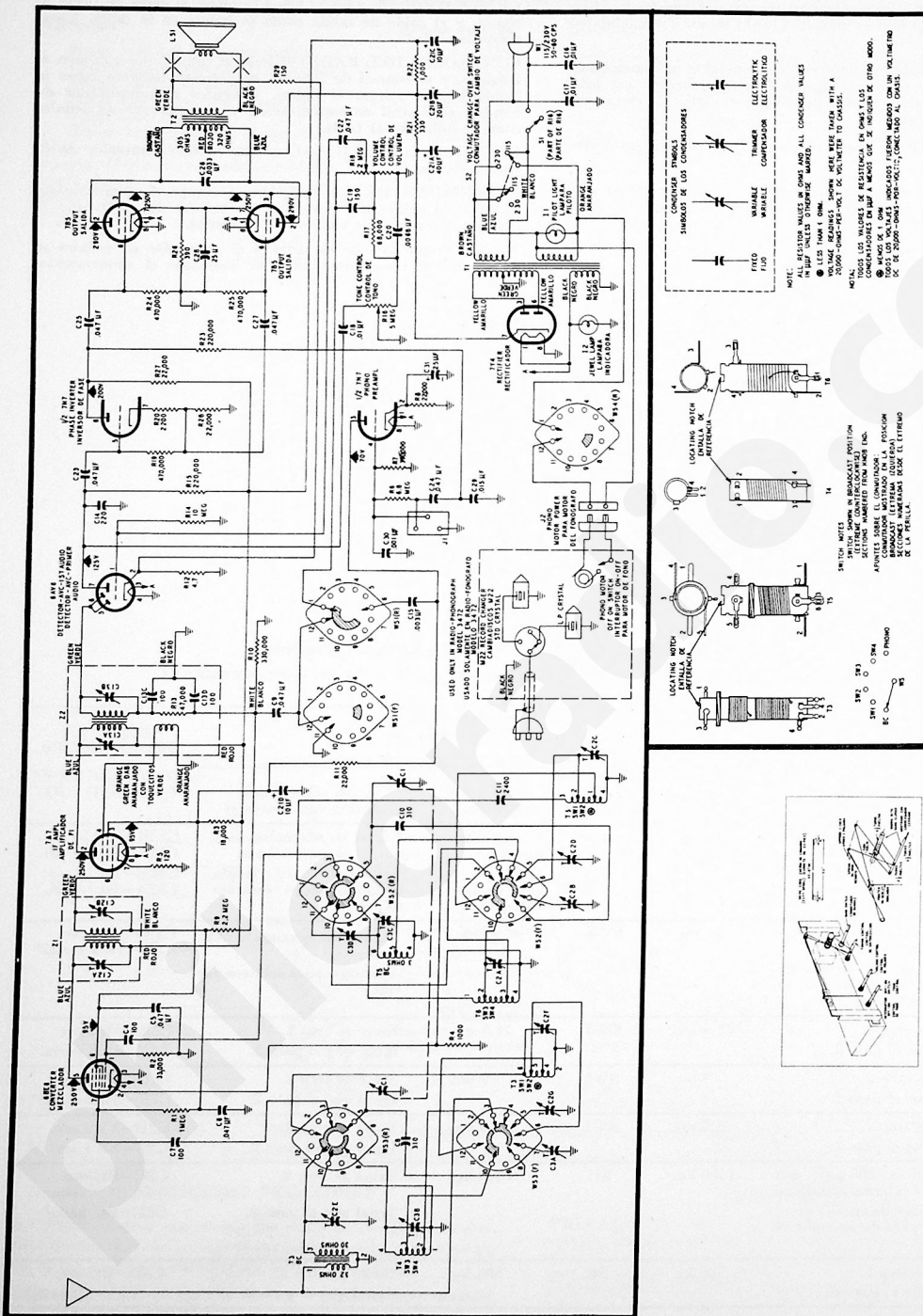


Figure 3. Top View of Chassis, Showing Trimmer Locations
 Figura 3. Vista Superior del Chasis, Mostrando la Posición de los Compensadores

STEP PASO	SIGNAL GENERATOR GENERADOR DE SEÑALES			RADIO		ADJUST IN ORDER GIVEN
	CONNECTION TO RADIO CONEXION AL RADIO	DIAL SETTING FRECUENCIA	BAND SWITCH COMNUT. DE BANDAS	DIAL SETTING FRECUENCIA	SPECIAL INSTRUCTIONS INSTRUCCIONES ESPECIALES	AJUSTENSE EN EL ORDEN DADO
1	Through a .05- μ f. condenser to pin 7 of the 6BE6. Al alfiler 7 del 6BE6, a través de un condensador de .05 μ f.	455 kc.	BC	Gang fully meshed. Cond. de sint. comp. cerrado.	Adjust for maximum output, then repeat once. Ajustéense para salida máxima, luego repítase una vez.	C13B—2nd i-f sec. C13A—2nd i-f pri. C12B—1st i-f sec. C12A—1st i-f pri.
2	Through a 400-ohm resistor to external aerial lead. Al alambre de antena exterior, a través de una resist. de 400 ohms.	21 mc.	SW4	21 mc.	Adjust for maximum output. Ajustéense para salida máxima.	C2A—SW4 osc. C3B—SW4 aerial*
3	Same as step 2. Igual que el paso 2.	11.5 mc.	SW3	11.5 mc.	Same as step 2. Igual que el paso 2.	C2B—SW3 osc. C3A—SW3 aerial
4	Same as step 2. Igual que el paso 2.	9 mc.	SW2	9 mc.	Same as step 2. Igual que el paso 2.	C2C—SW2 osc. C2F—SW2 aerial*
5	Same as step 2. Igual que el paso 2.	5.5 mc.	SW1	5.5 mc.	Same as step 2. Igual que el paso 2.	C2D—SW1 osc. C2G—SW1 aerial*
6	Through a 200- μ f. condenser to external aerial lead. Al alambre de antena exterior, a través de un cond. de 200 μ f.	1500 kc.	BC	1500 kc.	Same as step 2. Igual que el paso 2.	C3C—BC osc. (shunt) C2E—BC aerial
7	Same as step 6. Igual que el paso 6.	580 kc.	BC	580 kc.	Same as step 2. Igual que el paso 2.	C3D—BC osc.* (series)

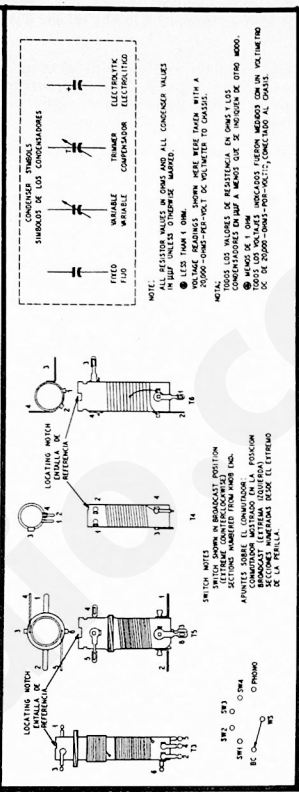
*Rock gang while tuning.

*Muévase el condensador de sintonización levemente de un lado a otro mientras se hace este ajuste.



TPO-2527

Figure 5. Drive-Cord Installation Details
 Figura 5. Detalles Sobre la Instalación de la Cuerda de Comando



TPO-2526

Figure 4. Schematic Diagram, Philco-Tropic Models 3472 and 3123
 Figura 4. Diagrama Esquemático de los Modelos Philco-Tropic 3472 y 3123



RECORD CHANGER
MODEL M-22

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