

# PARTS LIST AND SERVICE INFORMATION FOR PHILCO-TROPIC MODEL 3462

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 either unchanged or improved. When ordering replacements, use only the "Service Part No." DO NOT USE THE REFERENCE SYMBOL.

Reference Symbol	Description	Service Part No.	Reference Symbol	Description	Service Part No.
C1	Condenser, tuning gang, 2-section	31-2723-2	R6	Resistor, plate load, 22,000 ohms	66-3228540
C2	Condenser, trimmer assembly, 7-section	31-6414-5	R7	Resistor, drooping, 82,000 ohms	66-3828340*
C2A	Condenser, trimmer, oscillator (SW4)	Part of C2	R8	Resistor, a-v-c filter, 2.2 megohms	66-5228340*
C2B	Condenser, trimmer, oscillator (SW3)	Part of C2	R9	Resistor, grid return, 1 megohm	66-5108340*
C2C	Condenser, trimmer, oscillator (SW2)	Part of C2	R10	Resistor, phono feedback, 220,000 ohms	66-4228340*
C2D	Condenser, trimmer, oscillator (SW1)	Part of C2	R11	Resistor, cathode bias, 680 ohms	66-1688340
C2E	Condenser, trimmer, aerial (BC)	Part of C2	R12	Resistor, screen drooping, 100,000 ohms	66-4108340
C2F	Condenser, trimmer, aerial (SW2)	Part of C2	R13	Resistor, diode filter, 47,000 ohms	Part of Z2
C2G	Condenser, trimmer, aerial (SW1)	Part of C2	R14	Resistor, plate load, 1 megohm	66-5108340*
C3	Condenser, trimmer assembly, 4-section	31-6414-2	R15	Resistor, diode load, 470,000 ohms	66-4478340*
C3A	Condenser, trimmer, aerial (SW3)	Part of C3	R16	Tone control, 5 megohms (includes S1)	33-5535-32
C3B	Condenser, trimmer, aerial (SW4)	Part of C3	R17	Resistor, tone compensation, 22,000 ohms	66-3228340
C3C	Condenser, padder, oscillator (BC)	Part of C3	R18	Volume control, 2 megohms (tap at 1 megohm)	33-5566-25
C3D	Condenser, trimmer, oscillator (BC)	Part of C3	R19	Resistor, grid return, 10 megohms	66-6108540
C4	Condenser, d-c blocking, 100 $\mu$ f.	62-110001011	R20	Resistor, bias load, 470,000 ohms	66-4478340*
C5	Condenser, screen by-pass, .01 $\mu$ f.	45-3505-41*	R21	Resistor, filter, 330 ohms	33-1334-8
C6	Condenser, a-v-c by-pass, .047 $\mu$ f.	45-3505-28*	R22	Resistor, filter, 1000 ohms	66-2104340
C7	Condenser, d-c blocking, 100 $\mu$ f.	62-110001011	R23	Resistor, grid return, 10 megohms	66-6108540
C8	Condenser, fixed padder, 310 $\mu$ f.	30-1220-11	R24	Resistor, cathode load, 470,000 ohms	66-4478340*
C9	Condenser, d-c blocking, 100 $\mu$ f.	62-1-0001011	R25	Resistor, plate load, 470,000 ohms	66-4478340*
C10	Condenser, fixed padder, 310 $\mu$ f.	30-1220-11	R26	Resistor, bias load, 470,000 ohms	66-4478340
C11	Condenser, fixed padder, 2400 $\mu$ f.	60-20245304*	R27	Resistor, grid return, 470,000 ohms	66-4478340*
C12A	Condenser, trimmer, 1st i-f pri.	Part of Z1	R28	Resistor, cathode bias, 470 ohms	66-1475340
C12B	Condenser, trimmer, 1st i-f sec.	Part of Z1	R29	Resistor, grid return, 470,000 ohms	66-4478340*
C13A	Condenser, trimmer, 2nd i-f pri.	Part of Z2	R30	Resistor, oscillator loading, 3300 ohms	66-2338340*
C13B	Condenser, trimmer, 2nd i-f sec.	Part of Z2	R31	Resistor, phono compensation, 1 megohm	66-5108340*
C13C	Condenser, by-pass, 100 $\mu$ f.	Part of Z2	S1	Switch, on-off	Part of R16
C13D	Condenser, by-pass, 100 $\mu$ f.	Part of Z2	S2	Switch, voltage change-over	42-1569
C14	Condenser, by-pass, 56 $\mu$ f.	62-056009021	T1	Transformer, power	32-8448
C15	Condenser, d-c blocking (phono input), .0068 $\mu$ f.	45-3505-40*	T2	Transformer, output	32-8300-2*
C16	Condenser, line filter, .01 $\mu$ f.	45-3505-58*	T3	Transformer, aerial (BC, SW1, and SW2)	32-4456
C17	Condenser, line filter, .01 $\mu$ f.	45-3505-58*	T4	Transformer, aerial (SW3 and SW4)	32-4195
C18	Condenser, tone compensation, high cut, .0022 $\mu$ f.	45-3505-54*	T5	Transformer, oscillator (BC, SW1, and SW2)	32-4329
C19	Condenser, high-treble cut, 220 $\mu$ f.	62-122001011	T6	Transformer, oscillator (SW3 and SW4)	32-4194
C20	Condenser, bass compensation, .01 $\mu$ f.	45-3505-41*	W1	Line cord	L-2183*
C21	Condenser, electrolytic, 4-section	30-2570-57	WS2	Switch, band selector, 4-wafer	42-1931
C21A	Condenser, electrolytic, filter, 40 $\mu$ f., 300v	Part of C21	Z1	Transformer, 1st i-f	32-4345
C21B	Condenser, electrolytic, filter, 20 $\mu$ f., 300v	Part of C21	Z2	Transformer, 2nd i-f	32-4346-2
C21C	Condenser, electrolytic, filter, 10 $\mu$ f., 300v	Part of C21			
C21D	Condenser, electrolytic, filter, 10 $\mu$ f., 300v	Part of C21			
C22	Condenser, audio coupling, .0068 $\mu$ f.	45-3505-40*			
C23	Condenser, audio coupling, .0068 $\mu$ f.	45-3505-40*			
C24	Condenser, bias filter coupling, 680 $\mu$ f.	62-168001001*			
C25	Condenser, output coupling, .0068 $\mu$ f.	45-3505-40*			
C26	Condenser, bias filter, 680 $\mu$ f.	62-168001001*			
C27	Condenser, output coupling, .0068 $\mu$ f.	45-3505-40*			
C28	Condenser, electrolytic, cathode by-pass, 25 $\mu$ f.	45-3001*			
C29	Condenser, output plate by-pass, .0033 $\mu$ f.	45-3505-89*			
C30	Condenser, audio coupling, .01 $\mu$ f.	45-3505-41*			
C31	Condenser, phono compensation, .047 $\mu$ f.	45-3505-28*			
C32	Condenser, phono compensation, .047 $\mu$ f.	45-3505-28*			
I1	Pilot lamp	34-2605*			
I2	Phono-compartment lamp	34-2068			
J1	Socket, phono input	27-6126			
J2	Socket, phono motor	27-6552-7			
LS1	Loud speaker	36-1611-4			
R1	Resistor, grid return, 1 megohm	66-6108340*			
R2	Resistor, oscillator stabilizing, 120 ohms	66-1128340			
R3	Resistor, oscillator loading (SW1 and SW2) 22,000 ohms	66-3228340*			
R4	Resistor, cathode bias, 5600 ohms	66-2568340			
R5	Resistor, grid return, 68,000 ohms	66-3688340*			

## MISCELLANEOUS

Description	Service Part No.
<b>Cabinet Hardware</b>	
Back, cabinet	54-7998-2
Catch, bullet (2 required)	45-6002*
Clip, bin light	56-3545-6
Dome, mtg. feet (4 required)	45-6190*
Door pull	56-8380
Grommet, speaker mtg. (4 required)	54-4239
Hinge, knife (RH)	56-7873-2
Hinge, knife (LH)	56-7873-3
Knob, volume and tuning	54-4718-19
Knob, band selector and off-on tone	54-4718-18
Phono-compartment lamp assembly	27-6233-64
Pilot lamp assembly	27-6233-53*
Strike plate	45-6003
Speaker mtg. bolt (4 required)	W700-2
Speaker mtg. grommet (4 required)	54-4239
Washer, speaker mtg. (4 required)	27-7467
Conversion kit, phono, 60 to 50 cycles	40-7848
Driver (45 RPM records)	56-7747
<b>Dial Scale and Scale-Mounting Parts</b>	
Backplate assembly, scale	76-4360
Band, rubber (2 required)	54-4234
Drive cord (25-ft. spool)	45-8750*
Pointer	56-5630-27
Scale, dial	54-5094
Scale, regional (diffusing panel)	54-5043-1

REPLACEMENT PARTS LIST (Cont.)

Description	Service Part No.	Description	Service Part No.
Spring, scale mounting (4 required)	56-3841	Socket, Loktal	27-6207
Spring, gang and pointer	50-3084	Socket, phono input	27-6126
Strap, scale mounting (3 required)	56-4756FE11	Socket, phono motor	27-6200*
Screw, scale mounting (6 required)	1W25328FE11	Spring, changer mtg., top (3 required)	56-7059-1FJ47
Plug, Continental adapter	L-3275*	Spring, changer mtg., bottom (3 required)	56-7059FA9
Inserts, 45 RPM records (kit of 36)	45-3275	Sleeve, changer mtg. (3 required)	54-7798
Shaft, drive	31-2738-6	Nut, speed changer mtg. (3 required)	W-2554

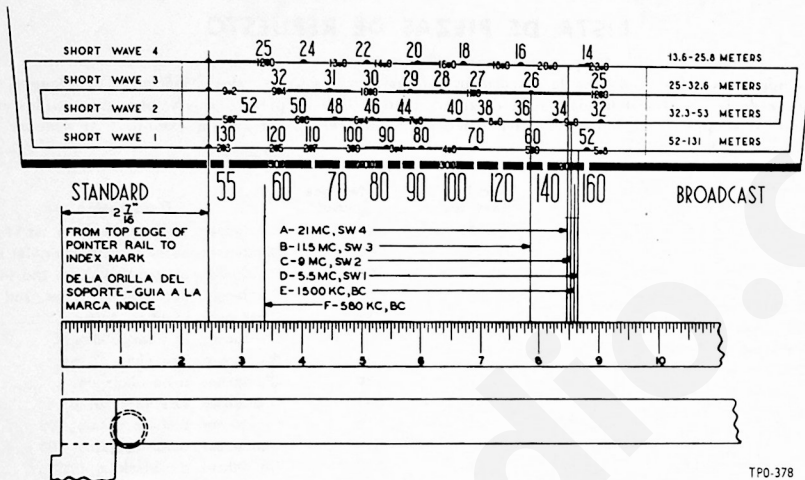


Figure 1. Dial-Calibration Measurements  
Figura 1. Medidas para la Calibración del Cuadrante

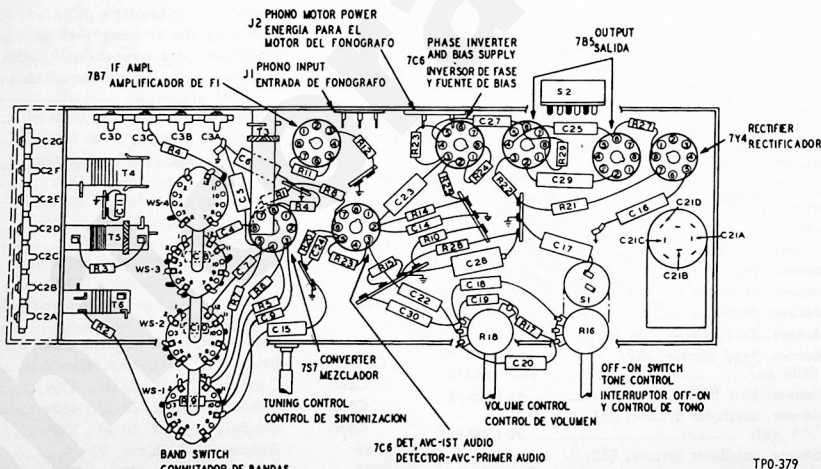


Figure 2. Symbolized Chassis, Showing Parts Placement  
Figura 2. Vista del Chasis, Mostrando la Ubicación de las Piezas

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, ubicado en la parte posterior del chasis, está fijado correctamente para el voltaje de línea.  
**INDICADOR DEL CUADRANTE**—Con el condensador de sintonización completamente cerrado, ajústese el indicador del

**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.

cuadrante de modo que coincida con la marca índice a la izquierda del "55" (BC). Véase la figura 1.

**GENERADOR DE SEÑALES**—Conéctese el cable de tierra al chasis, y el 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 hacia la izquierda (sin apagar el radio). Fijense 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 del altoparlante.

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

**NOTA:** Permitanse 15 minutos hasta que el radio y el generador de señales se calienten antes de comenzar el alineamiento.

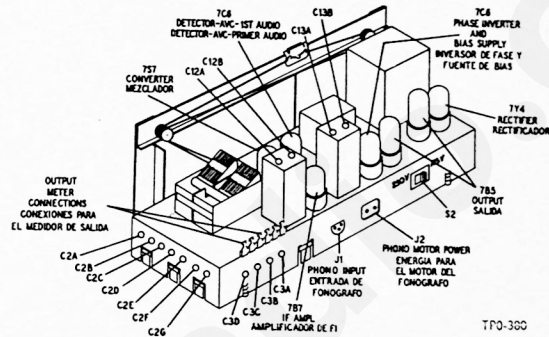
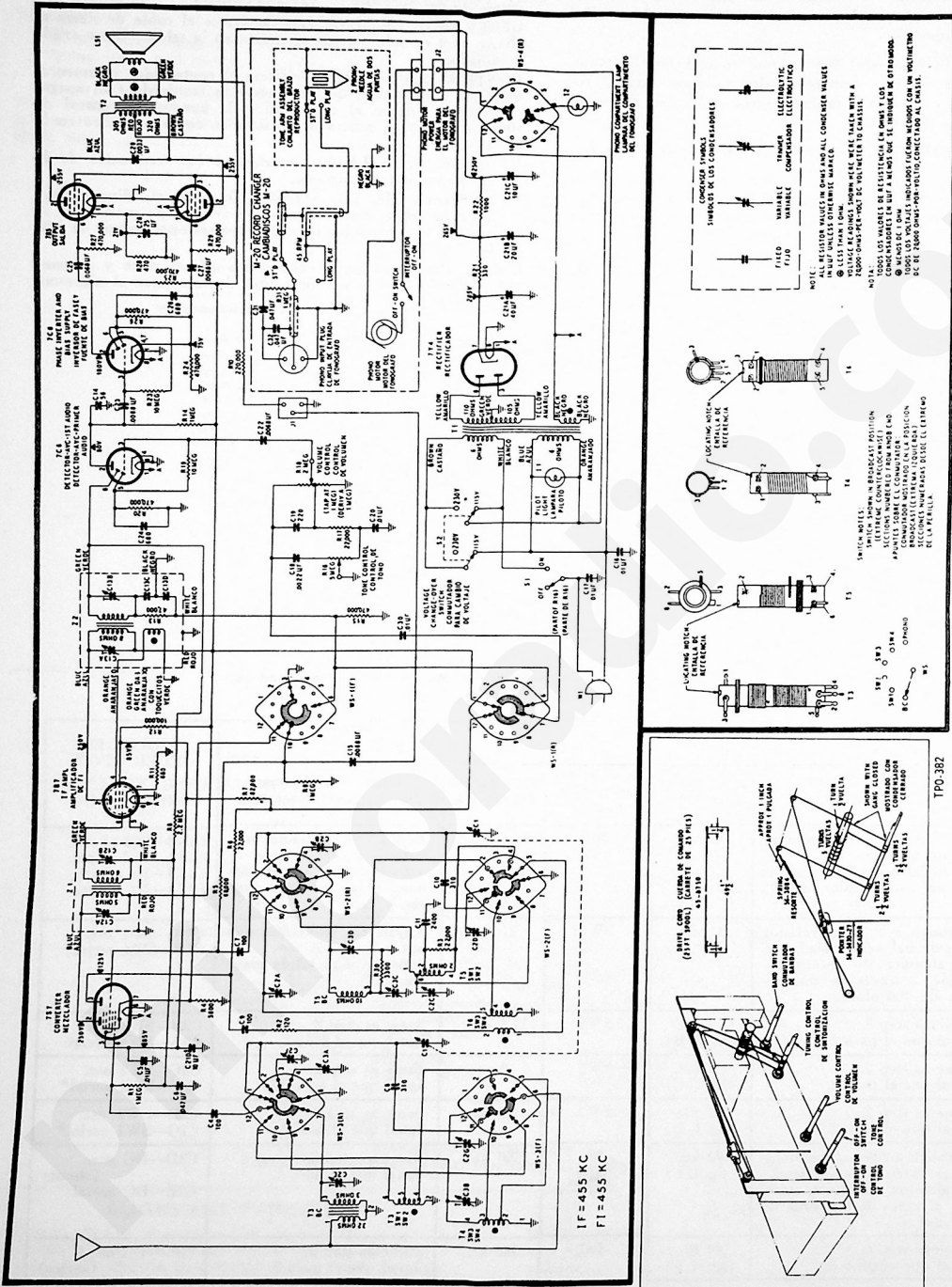


Figure 3. Top View of Chassis, Showing Trimmer Locations  
 Figura 3. Vista Superior del Chasis, Mostrando la Posición de los Compensadores

STEP PASO	SIGNAL GENERATOR GENERADOR DE SEÑALES		RADIO			ADJUST IN ORDER GIVEN AJUSTENSE EN EL ORDEN DADO
	CONNECTION TO RADIO CONEXION AL RADIO	DIAL SETTING FRECUENCIA	BAND SWITCH CONMUT. DE BANDAS	DIAL SETTING FRECUENCIA	SPECIAL INSTRUCTIONS INSTRUCCIONES ESPECIALES	
1	Through a .05- $\mu$ f. condenser to pin 6 of the 7S7. Al alfiler 6 del 7S7, a través de un condensador de .05 $\mu$ 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. (fig. 1, A)	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. (fig. 1, B)	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. (fig. 1, C)	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. (fig. 1, D)	SW1	5.5 mc.	Same as step 2. Igual que el paso 2.	C2D—SW1 osc. C2G—SW1 aerial*
6	Through a 200- $\mu$ f. condenser to external aerial lead. Al alambre de antena exterior, a través de un cond. de 200 $\mu$ f.	1500 kc. (fig. 1, E)	BC	1500 kc.	Same as step 2. Igual que el paso 2.	C3D—BC osc. (shunt) C2E—BC aerial
7	Same as step 6. Igual que el paso 6.	580 kc. (fig. 1, F)	BC	580 kc.	Same as step 2. Igual que el paso 2.	C3C—BC osc.* (series)

\*Rock gang while tuning.

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



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Figure 4. Schematic Diagram, Philco-Tropic Model 3462  
 Figura 4. Diagrama Esquemático, Philco-Tropic Modelo 3462

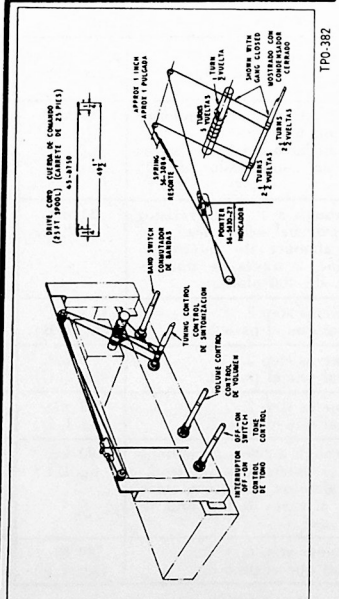


Figure 5. Drive-Cord Installation Details  
 Figura 5. Detalles Sobre la Instalación de la Cuerda de Comando



**RECORD CHANGER**

**M-20**

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