

# PARTS LIST AND SERVICE INFORMATION FOR PHILCO-TROPIC MODELS 3411 and 3461

## REPLACEMENT PARTS LIST

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

Reference Symbol	Description	Service Part No.
C1	Condenser, a-v-c isolating, 100 $\mu\text{f.}$	62-110001021
C2	Condenser, a-v-c filter, .047 $\mu\text{f.}$	45-3505-28*
C3	Condenser, tuning, 2-section	31-2755
C3A	Condenser, trimmer, aerial (SW)	Part of C3
C3B	Condenser, trimmer, osc. (SW)	Part of C3
C4	Condenser, d-c blocking, 56 $\mu\text{f.}$	62-056409001
C5	Condenser, screen by-pass, .047 $\mu\text{f.}$	45-3505-28*
C6	Condenser, trimmer, 3-section	31-6477-14
C6A	Condenser, padder, osc. (BC)	Part of C6
C6B	Condenser, trimmer, osc. (BC)	Part of C6
C6C	Condenser, trimmer, aerial (BC)	Part of C6
C7	Condenser, d-c blocking, .0068 $\mu\text{f.}$	45-3505-40*
C8	Condenser, tone compensation, 100 $\mu\text{f.}$	62-110001021
C9	Condenser, d-c blocking, .0068 $\mu\text{f.}$	45-3505-40*
C10	Condenser, tone compensation, .0068 $\mu\text{f.}$	45-3505-40*
C11	Condenser, tone compensation, .01 $\mu\text{f.}$	45-3505-41*
C12	Condenser, plate by-pass, 220 $\mu\text{f.}$	62-122001001
C13	Condenser, d-c blocking, .0068 $\mu\text{f.}$	45-3505-40*
C14	Condenser, d-c blocking, .0038 $\mu\text{f.}$	45-3505-40*
C15	Condenser, electrolytic, 4-section	30-2570-56
C15A	Condenser, cathode by-pass, 10 $\mu\text{f.}$	Part of C15
C15B	Condenser, filter, 10 $\mu\text{f.}$	Part of C15
C15C	Condenser, filter, 20 $\mu\text{f.}$	Part of C15
C15D	Condenser, filter, 40 $\mu\text{f.}$	Part of C15
C16	Condenser, tone compensation, .0033 $\mu\text{f.}$	45-3505-55*
C17	Condenser, line filter, .01 $\mu\text{f.}$	45-3505-41*
C18	Condenser, line filter, .01 $\mu\text{f.}$	45-3505-41*
I1	Lamp, pilot light, 6-8 volts	34-2064
I2	Lamp, pilot light, 6-8 volts	34-2064
I3	Lamp, bin light, 6-8 volts (Model 3461)	34-2068
I1	Socket, phono input	27-6126
LS1	Speaker, p.m. (Model 3411)	33-1613-6
LS1	Speaker, p.m. (Model 3461)	36-1610-6
R1	Resistor, BC primary loading, 22,000 ohms	66-3228340*
R2	Resistor, a-v-c filter, 1 megohm	66-5108340*
R3	Resistor, suppressor, 68 ohms	66-0688340*
R4	Resistor, grid return, 33,000 ohms	66-3338340*
R5	Resistor, a-v-c filter, 2.2 megohms	66-5228340*
R6	Resistor, diode load, 330,000 ohms	66-4338340*
R7	Resistor, filter, 15,000 ohms	66-3154340*
R8	Resistor, grid return, 10 megohms	66-6108340*
R9	Volume control, 2 megohms	33-5353-31
R10	Resistor, bass compensation, 68,000 ohms	66-3688340*
R11	Tone control, 5 megohms	33-5566-23
R12	Resistor, plate load, 220,000 ohms	66-4228340*
R13	Resistor, grid return, 470,000 ohms	66-4478340*
R14	Resistor, grid return, 470,000 ohms	66-4478340*
R15	Resistor, cathode bias, 330 ohms	66-1335340*
R16	Resistor, screen dropping, 10,000 ohms	66-3108340*
R17	Resistor, screen dropping, 6800 ohms	66-2688340*
R18	Resistor, filter, 1000 ohms	66-2105340*
R19	Resistor, filter, 220 ohms	66-1224340*
S1	Switch, change-over, 115 or 230 volts	42-1569
S2	Switch, power on-off	Part of R11
T1	Transformer, aerial	32-4461
T2	Transformer, oscillator	32-4462
T3	Transformer, output	32-8440
T4	Transformer, power	32-8441
TC1A	Tuning core, primary, 1st i-f	Part of Z1
TC1B	Tuning core, secondary, 1st i-f	Part of Z1

Reference Symbol	Description	Service Part No.
TC2A	Tuning core, primary, 2nd i-f	Part of Z2
TC2B	Tuning core, secondary, 2nd i-f	Part of Z2
W1	Line cord	42-1927
WS	Switch, band	L2183
WS-1	Switch, water, rear section	Part of 42-1927
WS-2	Switch, water, front section	Part of 42-1927
Z1	Transformer, 1st i-f	32-4377-1
Z2	Transformer, 2nd i-f	32-4378

## MISCELLANEOUS

Description	Service Part No.
<b>Cabinet Parts</b>	
Back (Model 3461)	54-8145
Baffle-and-cloth assembly (Model 3411)	40-7891
Baffle-and-cloth assembly (Model 3461)	40-7908
Bullet catch (Model 3461), 4 required	45-6002
Door pull (Model 3461), 2 required	56-8058
Hinge (Model 3411), 2 required	53-6434
Stud, hinge mtg. (Model 3411), 8 required	56-6296
Hinge, knife, l.h. (Model 3461), 2 required	56-7873-1
Hinge, knife, r.h. (Model 3461), 2 required	56-7873
Knob, band switch and tone control (Model 3411)	54-4718-15
Knob, volume and tuning control (Model 3411)	54-4718-16
Knob, band switch and tone control (Model 3461)	54-4718-17
Knob, volume and tuning control (Model 3461)	54-4718-14
Lid support (Model 3411)	53-7947
Mounting foot (Model 3411), 4 required	27-4911
Mounting foot (Model 3461), 4 required	45-6190
Speaker bolt (Model 3461), 4 required	W700 2
Strap, scale (Model 3461), 2 required	56-2234-4
Screw, scale strap mtg., 2 required	1W-25328FE11
Strike plate (Model 3461)	45-6003
Continental a-c adapter plug	L-3275
Conversion kit (50/60 cycles)	40-7848
Dial backplate assembly (Model 3461)	76-6008
Dial scale (Model 3411)	54-5091
Dial scale (Model 3461)	54-5093
Drive Cord (25-foot spool)	45-8750*
Pointer	76-5834-1
Pointer rail assembly (Model 3411)	76-5844
Pointer rail assembly (Model 3461)	76-5922
Spring, gang	56-2617
Spring, pointer	56-3167
Grommet, chassis mtg. (Model 3411), 4 required	54-4153
Grommet, chassis mtg. (Model 3461), 4 required	54-4239
Grommet, tuning-condenser mtg., 4 required	27-4596
<b>Record Changer Parts</b>	
Driver, 45 r-p-m record	56-7747
Grommet, changer spindle	27-4571
Insert (adapter), 45 r-p-m record	54-4744
Sleeve, rubber, changer mtg., 3 required	54-7798
Speednut, changer mtg., 3 required	W-2254FCP
Spring, changer mtg. (bottom), 3 required	56-7059FCP
Spring, changer mtg. (top), 3 required	56-7059-1FCP
Shield, tube base, 3X4 tube	56-3978-1FA3
Socket assembly, bin lamp (Model 3461)	27-6233-58
Clip, socket mtg.	56-3545FA3
Socket assembly, pilot lamp, 2 required	27-6233-55
Socket, 7-pin miniature, 6X4, 6AR5 tubes	27-6203-20
Socket, 7-pin miniature, (with center pin), 6AV6, 6BJ6, 6BE6 tubes	27-6203-12
Tuning shaft assembly	31-2738-4

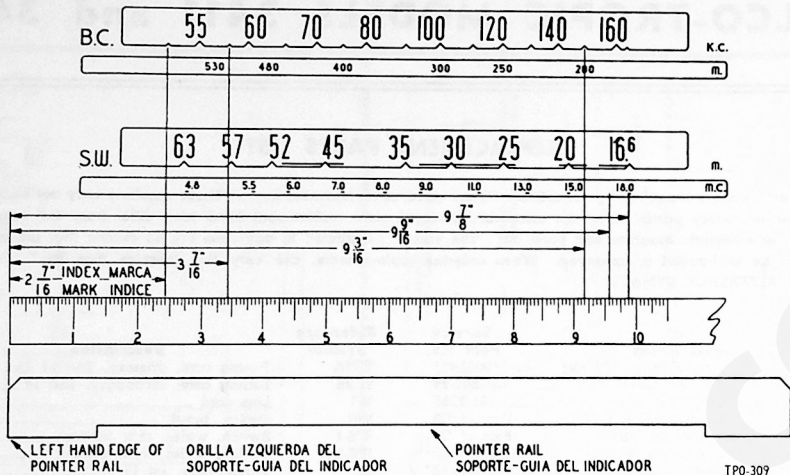


Figure 1. Dial-Calibration Measurements  
Figura 1. Medidas para Calibración del Cuadrante

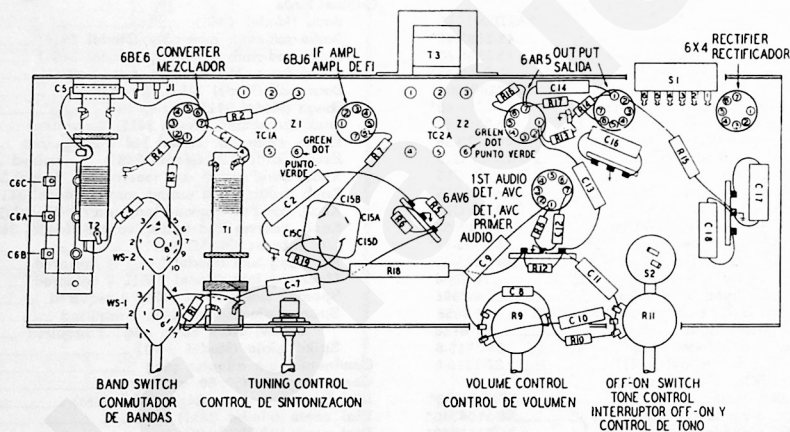


Figure 2. Symbolized Chassis, Showing Parts Placement  
Figura 2. Vista del Chasis, Mostrando la Ubicación de las Partes

## ALIGNMENT

**DIAL POINTER**—With tuning-condenser plates fully meshed, adjust dial pointer to coincide with index mark at left-hand corner of dial (just to the left of the "55" mark).

**SIGNAL GENERATOR**—Connect ground lead to chassis through a .01  $\mu$ f. isolating condenser; connect output lead as indicated in chart. Use modulated output.

**RADIO CONTROLS**—Set volume control to maximum. Set band switch, tuning control, and signal-generator frequency as indicated in chart.

**OUTPUT METER**—Connect to lugs indicated on rear of chassis.

**OUTPUT LEVEL**—During alignment, signal-generator output must be attenuated to hold output-meter reading below 1.5 volts.

## ALINEAMIENTO

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

**GENERADOR DE SEÑALES**—Conéctese el cable de tierra al chasis, a través de un condensador de .01  $\mu$ f., y el cable de salida como se indica en la tabla. Usese salida modulada.

**CONTROLES DEL RADIO**—Póngase el control de volumen al máximo. Fijense el conmutador de bandas, el control de sintonización, y la frecuencia del generador de señales como se indica en la tabla.

**MEDIDOR DE SALIDA**—Conéctese a los terminales indicados en la parte posterior del chasis.

**INTENSIDAD DE LA SALIDA**—Durante el alineamiento, aténese la salida del generador de señales para que la indicación en el medidor sea siempre menor de 1.5 voltios.

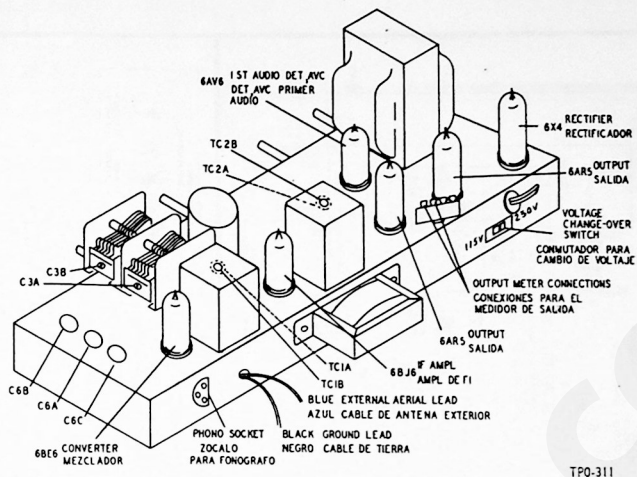


Figure 3. Top View of Chassis, Showing Trimmer Locations  
 Figura 3. Vista Superior del Chasis, Mostrando la Posición de los Compensadores

STEP PASO	SIGNAL GENERATOR GENERADOR DE SEÑALES		RADIO			ADJUST AJUSTENSE
	CONNECTION TO RADIO CONEXION AL RADIO	DIAL SETTING FRECUENCIA	BAND SWITCH CONMUT. DE BANDAS	DIAL SETTING FRECUENCIA	SPECIAL INSTRUCTIONS INSTRUCCIONES ESPECIALES	
1	Through .1 $\mu$ f. condenser to rear section of tuning condenser. A la sección posterior del cond. de sintonización, a través de un cond. de .1 $\mu$ f.	455 kc.	BC	580 kc.	Adjust, in order given, for maximum output; then repeat. Ajústense, en el orden dado, para salida máxima; luego repítase.	TC2B—2nd i-f sec. TC2A—2nd i-f pri. TC1B—1st i-f sec. TC1A—1st i-f pri.
2	Through 400-ohm resistor to aerial lead. Al alambre de antena, a través de una resist. de 400 ohms.	18 mc.	SW	18 mc.	Adjust for maximum output. Ajústese para salida máxima.	C3B—SW osc.
3	Same as step 2. Igual que el paso 2.	17 mc.	SW	17 mc.	Adjust for maximum output. Ajústese para salida máxima.	C3A—ant. SW
4	Through 200 $\mu$ f. condenser to aerial lead. Al alambre de antena, a través de un cond. de 200 $\mu$ f.	1500 kc.	BC	1500 kc.	Adjust for maximum output. Ajústese para salida máxima.	*C6B—BC osc.
5	Same as step 4. Igual que el paso 4.	580 kc.	BC	580 kc.	Adjust for maximum output. Ajústese para salida máxima.	*C6A—BC osc. tracking
6	Repeat step 4. Repítase el paso 4.	1500 kc.	BC	1500 kc.	Adjust for maximum output. Ajústese para salida máxima.	C6C—BC ant.
7	Repeat steps 5 and 6 until no further improvement results. Repítanse los pasos 5 y 6 hasta que no se obtenga mejoría alguna.					

\*Rock tuning condenser while adjusting.

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

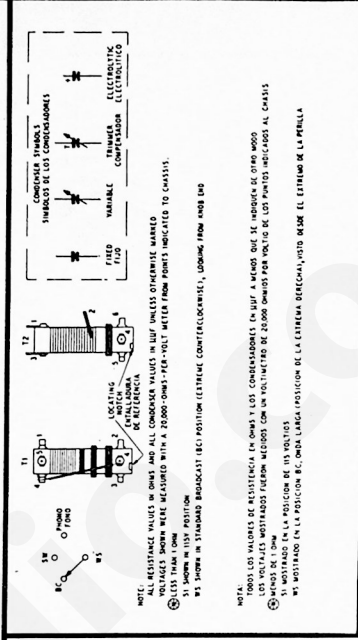
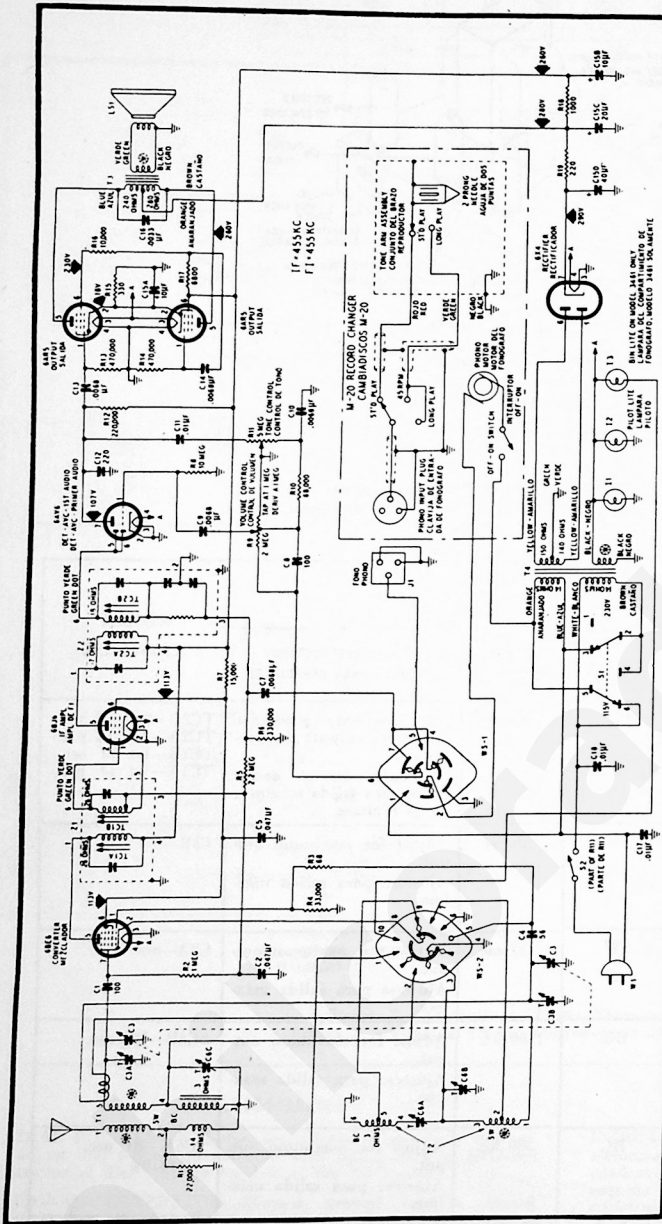


Figure 4. Philco-Tropic Models 3411 and 3461. Schematic Diagram  
 Figura 4. Radios Philco-Tropic Modelos 3411 y 3461.  
 Diagrama Esquemático

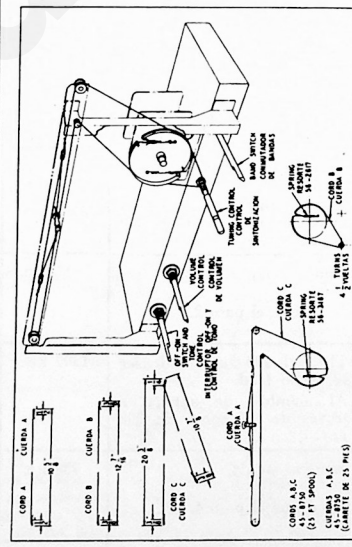


Figure 5. Drive-Cord Installation Details  
 Figura 5. Detalles Sobre la Instalación de la  
 Cuerda de Mando

PRODUCTION CHANGE

CAMBIO DE PRODUCCION

Run 2  
 The 1st i-f transformer was changed to Part No. 32-4377-2.

Corrida 2  
 El 1º transformador de f-i fué cambiado a la Parte Núm. 32-4377-2.