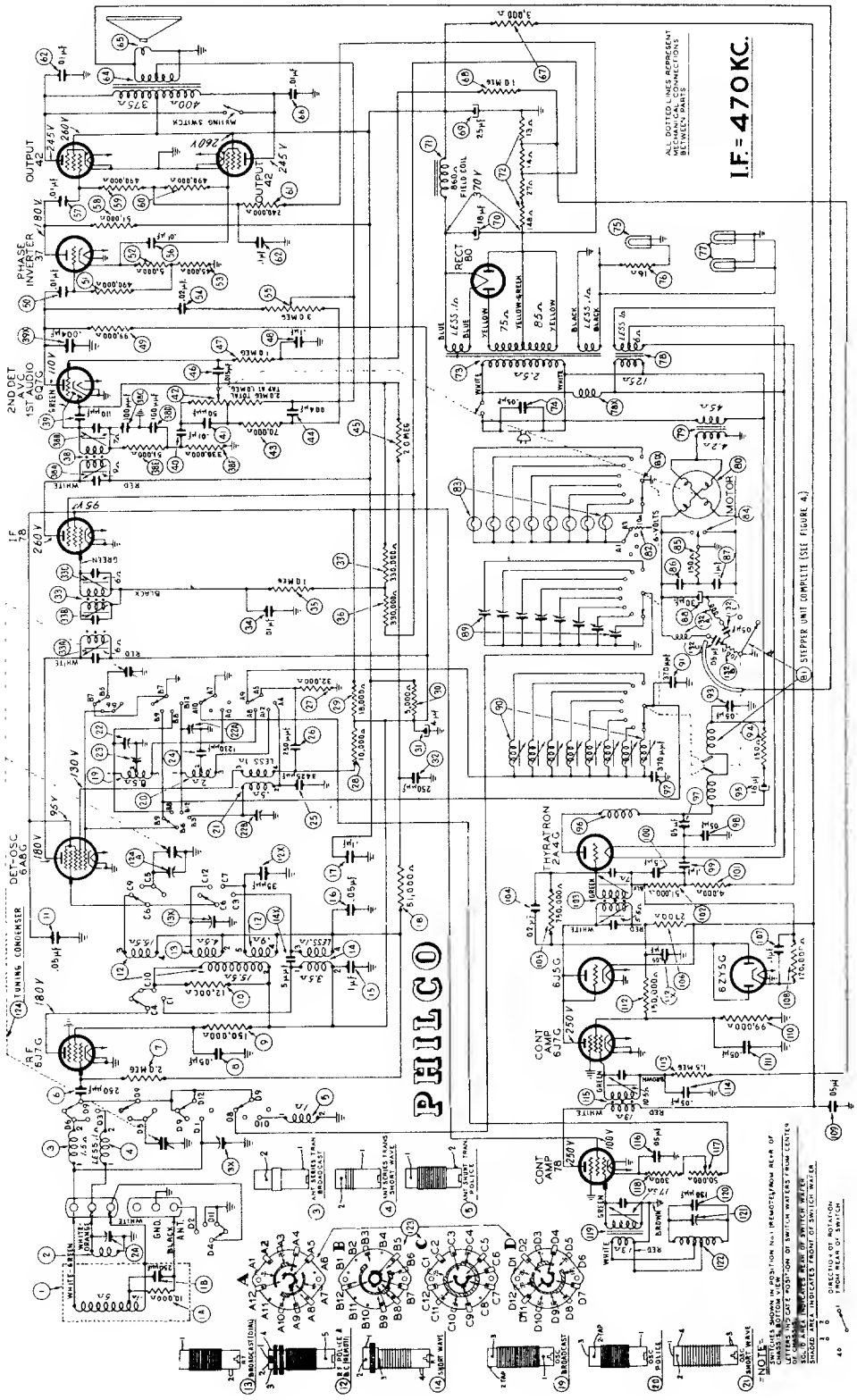
Philco Radio & Television Corp.

	Model: 40-216	**Chassis:**	**Year:** Pre June 1940
	Power:	**Circuit:**	**IF:**
	Tubes:		
	Bands:		

Resources
Beitmans 1940 92
Riders 11 (XI) PHILCO 11-56
Riders 11 (XI) PHILCO 11-57
Riders 11 (XI) PHILCO 11-59, 60
Riders 11 (XI) PHILCO 11-61
Riders 11 (XI) PHILCO 11-62



MODEL 40-205
MODEL 40-216
MODEL 40-510
MODEL 40-516

PHILCO RADIO & TELEV. CORP.

Models 40-205, 40-216 and MODELS 40-510, 40-516.

Wireless Remote Control Adjustments, Notes

Model 40-205, 510.

TYPE CIRCUIT: Model 40-205, code 121, is a 12-tube wireless remote control and dial tuned receiver employing a superheterodyne circuit for reception of standard broadcast stations. Eight broadcast stations can be automatically tuned in from the remote control unit. The wireless remote control unit also increases and decreases volume and turns off the set without any connections between the receiver and the control unit. This model is also designed to receive the sound of a television program tuned in by Philco Television sets.

PHILCO BUILT-IN SUPER AERIAL SYSTEM:

A new type aerial system which eliminates an outside aerial is also incorporated in this model. Included in the built-in super aerial system is a statically shielded loop for broadcast band reception. The feature of the built-in broadcast band statically shielded loop is that it may be turned to the position in which it picks up a minimum amount of interference or if interference is not present, the loop may be set in the position where best reception is obtained.

In addition, other features of design are automatic volume control, continuously variable tone control, base compensation, degenerated push pull pentode audio output.

POWER SUPPLY: 115 Volts, 50 to 60 Cycles, A. C.

POWER CONSUMPTION: 180 watts. (Model 40-205 only)

TUNING RANGES: 540 to 1600 K. C.

I. F. FREQUENCY: 470 K. C.

PHILCO TUBES USED: Receiver — 7C7, R. F. Amplifier; 6J8G, First Detector Oscillator; 7S, I. F. Amplifier; 6Q7G, Second Detector, A. V. C. and First Audio; two (2) 42 Audio Output, and one 80 Rectifier.

Wireless Remote Control Amplifier — 7S, First Control Amplifier; 6J7G, Second Control Amplifier; A. V. C.; 6ZY5G, A. V. C. and a 2A4G Thyratron Rectifier.

Wireless Remote Control Unit — One type 30.

AUDIO OUTPUT: 10 watts. (Model 40-205 only)

CABINET DIMENSIONS:

	Height	Width	Depth
Console	38	30	15⅝
Wireless Remote Control	5½	7¼	9⅛

Model 40-510 is a radio-phonograph combination assembled in a console cabinet consisting of a 12 tube, wireless remote control superheterodyne radio receiver and a Deluxe Inter-Mix Record Changer.

Model 40-216, 516.

TYPE CIRCUIT: Model 40-216, code 121, is a 14-tube wireless remote control and dial tuned receiver employing a superheterodyne circuit with three tuning ranges for reception of standard and short wave broadcast stations. Eight broadcast stations can be automatically tuned in from the remote control unit. The wireless remote control unit also increases and decreases volume and turns off the set without any connections between the receiver and the control unit. This model is also designed to receive the sound of a television program tuned in by Philco Television sets. A Philco wireless record player can also be set up for use with this receiver.

PHILCO BUILT-IN SUPER AERIAL SYSTEM:

A new type aerial system which eliminates an outside aerial is also incorporated in this model. Included in the built-in super aerial system is a statically shielded loop for broadcast band reception and a short wave receiving loop. The feature of the built-in broadcast band statically shielded loop is that it may be turned to the position in which it picks up a minimum amount of interference or if interference is not present, the loop may be set in the position where best reception is obtained.

In addition other features of design are automatic volume control, continuously variable tone control, base compensation, degenerated push pull pentode audio output. Outside aerial connections are also provided for remote localities where station signal strength is exceptionally weak.

POWER SUPPLY: 115 Volts, 50 to 60 Cycles, A. C.

POWER CONSUMPTION: 190 watts. (Model 40-216 only)

TUNING RANGES: 540 to 1600 K.C., 1.6 to 4.5 M.C., 6.0 to 18.0 M.C.

I. F. FREQUENCY: 470 K. C.

PHILCO TUBES USED: Receiver — 6J7G, R. F. Amplifier; 6A8G, Converter; 7S, I. F. Amplifier; 6Q7G, Second Detector, A. V. C. and First Audio; 37, Phase Inverter; two 42 Audio Output, and one 80, Rectifier.

Wireless Remote Control Amplifier — 7S, First Control Amplifier; 6J7G, Second Control Amplifier; 6J5G, A. V. C., 6ZY5G and 2A4G, Rectifier.

Wireless Remote Control Unit — 1 type 30 tube.

AUDIO OUTPUT: 10 watts.

Model 40-516 is a radio-phonograph combination assembled in a console cabinet consisting of a 14 tube, wireless remote control superheterodyne radio receiver and a Deluxe Inter-Mix Record Changer.

ADJUSTMENT OF WIRELESS REMOTE CONTROL CIRCUITS

Models 40-205, 40-216 and 40-510, 40-516.

ADJUSTING CONTROL FREQUENCY AMPLIFIER

The wireless remote control models are shipped with 5 different control frequencies which range from 350 to 400 K. C. These frequencies are identified by code numbers appearing on the serial number ticket and on the rear of the chassis. The code numbers and frequencies are as follows:

Code 5.....355 K. C. Code 7.....375 K. C.
Code 6.....367 K. C. Code 8.....383 K. C.
Code 9.....395 K. C.

The purpose of the different control frequencies is to prevent interaction between two or more wireless remote control models which are on the same floor or exceptionally close together. When several wireless remote control models are to be located close together, it will be necessary to use different control frequencies. These frequencies should be 20 K. C. apart. For example, if three models are to be operated at the same time and are closely situated, it will be advisable to adjust the control frequency of the first set to 355 K. C., the second set to 375 K. C., and the third set to 395 K. C.

In order to realign or change the control frequency of these models, the following equipment is required:

1. Philco Model 077 signal generator with a loop attached to the output terminal. (A few turns of wire 12 inch in diameter).

2. Philco wireless remote control aligning adapter. Part No. 45-2769.

3. Philco aligning screw driver, Part No. 45-2610.

With this apparatus the control frequency is adjusted as follows:

1. Remove the 2A4G control tube from its socket and replace with the aligning adapter. Connect the red lead of the aligning adapter to the positive terminal of the vacuum tube voltmeter. The black lead of the adapter is connected to the negative terminal of the vacuum tube voltmeter.

2. Remove the 78 control amplifier tube, its shield and the shield of the 6J7G tube. Apply power to the set and turn the range selector disc to "remote".

3. Attach the "high" side of the signal generator output to the grid of the 6J7G tube. Set the generator modulation control to "mod on" and turn the attenuator control about one-fourth on.

4. The control frequency to which the control amplifier is tuned can now be determined by tuning the signal generator between 350 and 400 K. C. When the signal generator is tuned to the control frequency, the vacuum tube voltmeter will show maximum deflection. If this frequency is to be used, leave the signal generator at this point or turn the indicator to any other frequency desired between 350 and 400 K. C.

5. After the control frequency has been found or changed, compensators (103A), (103B) Model 40-216; and (74A), (74B) Model 40-205 are adjusted for maximum indication on the vacuum tube voltmeter.

6. After adjusting this circuit, replace the 78 tube and shields in their sockets and remove the signal generator lead from the grid of the 6J7G tube.

7. Place the small loop mentioned above into the "high" and "ground" of the signal generator output terminals and place the signal generator near the secondary inductor loop in the bottom of the cabinet. When doing this, do not disturb the setting of the signal generator indicator. Turn the sensitivity control located on the right rear of the chassis toward the position marked "extreme" then adjust compensators (119), (115) Model 40-216; (90), (85) Model 40-205 for maximum reading on the vacuum tube voltmeter.

8. Next adjust the secondary inductor loop compensator (121) in the Model 40-216 and (92) Model 40-205 located in the bottom of the cabinet. This compensator is encased in a cardboard container that is attached to one corner of a loop. Extreme care should be used in adjusting the compensator to the exact point of resonance as the secondary inductor is a very sharply tuned circuit.

9. If the vacuum tube voltmeter pointer goes off scale when adjusting the compensators, turn the attenuator control of the signal generator toward the "off" position. After these compensators are adjusted to maximum, the control amplifier is tuned to the frequency selected.

PHILCO RADIO & TELEV. CORP.

MODEL 40-205
MODEL 40-216
MODEL 40-510
MODEL 40-516
Alignment
Remote Cont. Notes

ALIGNING OF COMPENSATING CONDENSERS

EQUIPMENT REQUIRED

(1) **Signal Generator.** In order to properly adjust this receiver a calibrated signal generator such as Philco Model 077 is required. This signal generator covers a frequency range of 540 to 36,000 K. C.

(2) **Indicating Device.** To obtain maximum signal strength and accurate adjustment of the padders a vacuum tube voltmeter and circuit tester such as Philco Models 027 and 028 is recommended. These testers also contain an audio output meter which may be used as an indicating device.

(3) **Aligning Tools.** Fiber handle screw driver Philco Part No. 45-2610. When using the vacuum tube voltmeter for adjusting the set, an aligning adaptor Part No. 45-2767 is required.

CONNECTING ALIGNING INSTRUMENTS

VACUUM TUBE VOLTMETER: To use the vacuum tube voltmeter as an aligning indicator it should be connected to the A. V. C. circuit as follows:

1. Connect the negative (—) terminal of the voltmeter through a 2 meg. resistor to the converter grid (6J8G) Model 205, (6A8G) Model 216. The resistor must be connected directly to the grid of the tube and the voltmeter wire attached to the resistor.

2. Connect the positive (+) terminal to the chassis ground terminal.

AUDIO OUTPUT METER: If this type of meter is used as an aligning indicator, it should be connected to the plate terminals of the 42 tubes. Adjust the meter for the 0 to 30 volt A. C. scale.

After connecting the aligning meter, adjust the compensators in the order as shown in the tabulation below. Locations of the compensators are shown in Fig. 6 and 7, page No. 6. If the output meter pointer goes off scale when adjusting the compensators, reduce the strength of the signal from the generator.

SIGNAL GENERATOR: When adjusting the I. F. padders, the high side of the signal generator is connected through a .1 mfd. condenser to terminal No. 1 of the loop terminal panel at the rear of the chassis. The ground or low side of the signal generator is connected to the chassis of the receiver.

When aligning the R. F. padders a loop antenna is made from a few turns of wire and connected to the signal generator output terminals; the loop is then placed two or three feet from the loop in the cabinet. Do not remove the receiver loop from the cabinet. It is necessary when adjusting the padders, that the receiver be left in the cabinet.

Receiver Circuit Adjustments — Model 40-216 and MODEL 40-516.

Operation	SIGNAL GENERATOR		RECEIVER			SPECIAL INSTRUCTIONS
	Output Connections to Receiver	Dial Setting	Dial Setting	Control Setting	Adjust Compensators	
1	78 I. F. Grid	470 K.C.	580 K.C.	Vol. Max. Range Switch "Brdcst"	38A, 38B	Turn Out 33B Full
2	6A8G Det. Osc. Grid	470 K.C.	580 K.C.	Vol. Max. Range Switch "Brdcst"	33C, 33A, 33B	Note A
3	Use Loop on Generator	16.0 M.C.	16.0 M.C.	Vol. Max. Range Switch "Short Wave"	22B, 124A, 2A	Note C, Note D
4	Use Loop on Generator	1500 K.C.	1500 K.C.	Vol. Max. Range Switch "Brdcst"	22, 13X, 3X	Note A
5	Use Loop on Generator	580 K.C.	580 K.C.	Vol. Max. Range Switch "Brdcst"	23	Rollgang
6	Use Loop on Generator	1550 K.C.	1550 K.C.	Vol. Max. Range Switch "Brdcst"	22	
7	Use Loop on Generator	3.5 M.C.	3.5 M.C.	Vol. Max. Range Switch "Police"	22A	Note B

Receiver Circuit Adjustments — Model 40-205 and MODEL 40-510.

Operation	SIGNAL GENERATOR		RECEIVER			SPECIAL INSTRUCTIONS
	Output Connections to Receiver	Dial Setting	Dial Setting	Control Setting	Adjust Compensators	
1	78 Grid	470 K.C.	580 K.C.	Vol. Max. Range Switch "Brdcst"	14A, 14B	Turn Out 13B Full
2	6J8G Grid	470 K.C.	580 K.C.	Vol. Max. Range Switch "Brdcst"	13A, 13C, 13B, 14A	
3	Loop	1500 K.C.	1500 K.C.	Vol. Max. Range Switch "Brdcst"	95B, 95A	Note A
4	Loop	580 K.C.	580 K.C.	Vol. Max. Range Switch "Brdcst"	7	Rollgang when Adjusting Padder
5	Loop	1500 K.C.	1500 K.C.	Vol. Max. Range Switch "Brdcst"	95B, 95A	Note B

NOTE A — Dial Calibration: In order to adjust the receiver correctly the dial must be aligned to track properly with the tuning condenser. To adjust the dial, proceed as follows: With the tuning condenser closed (maximum capacity), set the dial pointer on the extreme left index line at the low frequency end of the broadcast scale. The arrangement of the drive cable and dial pointer is shown in Fig. 5.

NOTE C — If two peaks (signals) are observed on the aligning meter when adjusting the oscillator padder No. 22A tune the padder to the second peak from the maximum capacity position (screw all the way in).

NOTE D — If two peaks (signals) are observed on the aligning meter when adjusting the R. F. and loop padders 124A and 2A, tune the padders to the first peak signal from the maximum capacity position (screw all the way in). When adjusting the padders to this first peak roll the tuning condenser (rock) slightly back and forth to obtain the maximum readings on the aligning meter.

NOTE B — See Remote Control Amplifier adjustments.

ADJUSTING WIRELESS REMOTE CONTROL UNIT

The wireless remote control unit is now adjusted to the control frequency of the amplifier as follows:

1. Turn off the signal generator, then dial any one of the stations indicated on the remote control unit by pulling the selector to the stop position; release the selector and at the same time press the stop down and hold it in this position.

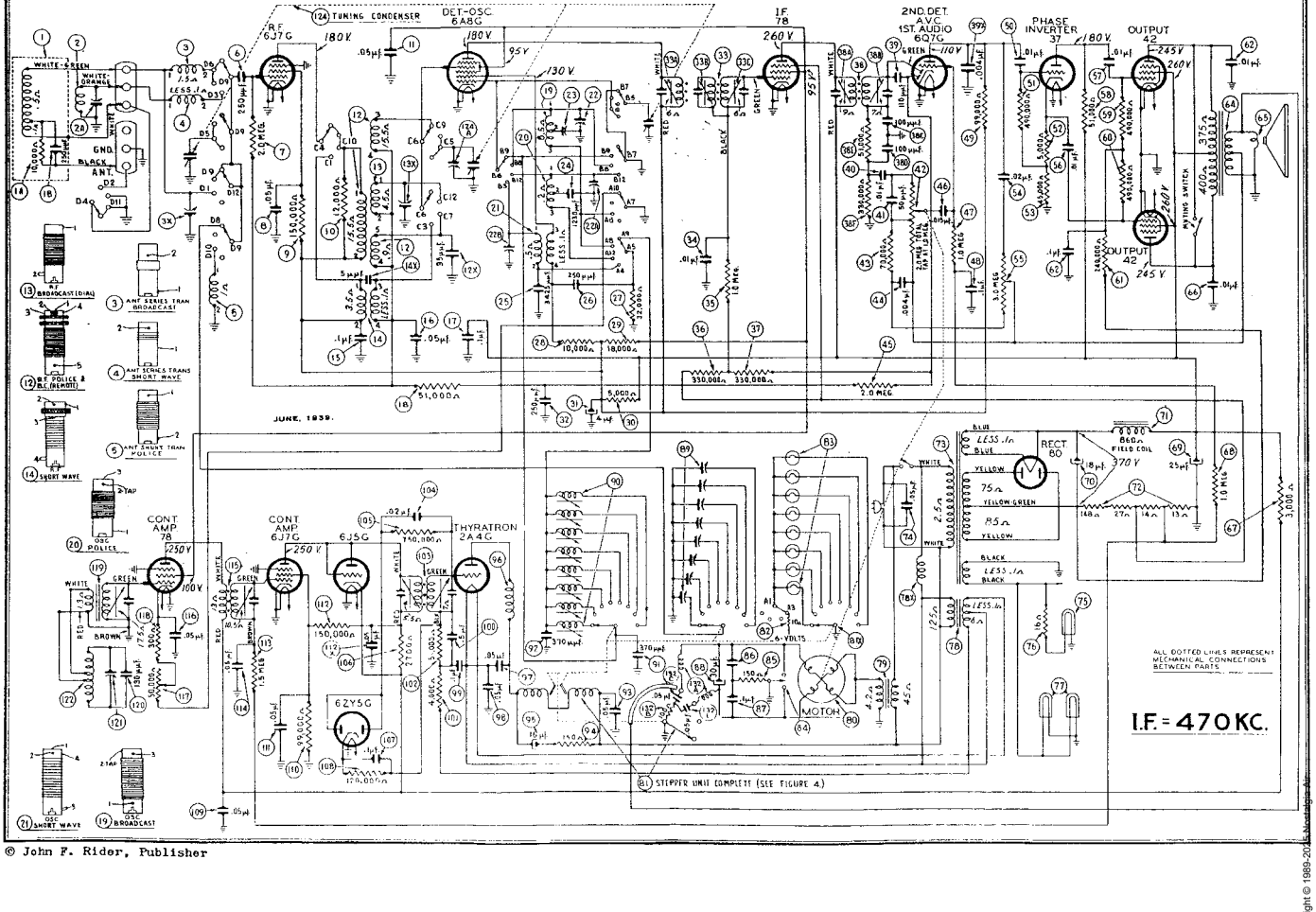
2. Now bring the wireless remote control unit close to the receiver. Using a padding wrench, Philco Part No. 3164, tune the compensator (127) Fig. 3, located on the bottom of the remote control unit until a maximum voltage reading is indicated on the vacuum tube voltmeter. When tuning this compensator, it should be done very slowly so as not to pass over the frequency to which the control amplifier is tuned.

3. After adjusting the compensator with the sensitivity control on the receiver in the "extreme" position, the remote control unit is adjusted for maximum sensitivity by setting the sensitivity control in the "near" position and placing the remote control unit a few feet away from the receiver. The compensator (127) Fig. 3, is then adjusted again for maximum voltage reading of the vacuum tube voltmeter.

4. After making these adjustments, remove the aligning adapter from the socket and replace the 2A4G tube. The wireless remote control unit should now be adjusted to the same frequency as the control frequency in the receiver.

PHILCO RADIO & TELEV. CORP.

MODEL 40-216
Schematic, Voltage



Chassis, Trimmers
Stepper Unit, Dial

PHILCO RADIO & TELEV. CORP.

MODEL 40-216
MODEL 40-516

FIG. 1. MODEL 40-216 PART LOCATIONS. UNDERSIDE OF CHASSIS.

FIG. 7. LOCATIONS OF COMPENSATORS, MODEL 40-216.

FIG. 2. INTERNAL WIRING OF STEPPER UNIT. NUMBERS CORRESPOND TO SCHEMATIC.

FIG. 5. DIAL POINTER AND CABLE ARRANGEMENT.

MODELS 40-205, 40-216.

FIG. 3. WIRELESS REMOTE CONTROL UNIT SCHEMATIC DIAGRAM.

*In model 40-516 No. 8 position is used for phonograph. This position is already connected and will not need adjustment.

MODEL 40-205
MODEL 40-216

PHILCO RADIO & TELEV. CORP.

Parts Lists

Model 40-205

Replacement Parts

SCHE. No.	DESCRIPTION	PART No.
1	Resistor (1.0 meg., ½ watt)	33-510339
1X	Tubular Cond. (.008 mfd.)	30-4818
1Y	Resistor (330,000 ohms, ½ watt)	33-433339
2	Mica Cond. (200 mmfd.)	30-1078
2X	Tubular Cond. (.05 mfd.)	30-4423
3	R. F. Trans.	32-3282
3A	Resistor (13,000 ohms, ½ watt)	33-513339
4	Mica Cond. (280 mmfd.)	30-1032
5	Resistor (33,000 ohms, ½ watt)	33-533339
6	Oscillator Trans.	32-3278
7	Resistor (1.0 meg.)	33-6239
7X	Mica Cond. (25 mmfd.)	30-1136
8	Resistor (10,000 ohms, ½ watt)	33-510339
9	Resistor (5,000 ohms, 2 watts)	33-250339
10	Resistor (33,000 ohms, 1 watt)	33-533439
11	Electrolytic Cond. (4 mfd., 350 V.)	30-2134
12	Tubular Cond. (.05 mfd.)	30-4423
13	1st I. F. Trans. Assy.	32-3284
14	2nd I. F. Trans. Assy.	32-3285
15	Mica Cond. (110 mmfd.)	30-1049
16	Resistor (2.0 meg., ½ watt)	33-520339
17	Resistor (1.0 meg., ½ watt)	33-510339
18	Tubular Cond. (.01 mfd.)	30-4478
19	Mica Cond. (150 mmfd.)	30-1029
20	Resistor (70,000 ohms, ½ watt)	33-370339
21	Volume Control (2.0 meg.)	33-5300
22	Tubular Cond. (.004 mfd.)	30-4334
23	Resistor (1.0 meg., ½ watt)	33-510339
24	Tubular Cond. (.015 mfd.)	30-4358
25	Tone Control (3.0 meg.)	33-5301
26	Tubular Cond. (.02 mfd.)	30-4481
27	Resistor (99,000 ohms, ½ watt)	33-399339
28	Resistor (330,000 ohms, ½ watt)	33-433339
29	Resistor (490,000 ohms, ½ watt)	33-449339
30	Tubular Cond. (.02 mfd.)	30-4517
30X	Tubular Cond. (.006 mfd.)	30-4448
31	Tubular Cond. (.001 mfd.)	30-4501
32	Resistor (3500 ohms, ½ watt)	33-235339
33	Tubular Cond. (.01 mfd.)	30-4901
34	Output Trans.	32-7997
35	Cone and Voice Coil Assy. (Spkr. Part No. 36-1450-2)	36-4089
	(Spkr. Part No. 36-1450-4)	36-4111
36	Tubular Cond. (.01 mfd.)	30-4501
37	Resistor (3000 ohms, ½ watt)	33-230339
38	Tubular Cond. (.02 mfd.)	30-4481
39	Resistor (1.0 meg., ½ watt)	33-510339
40	Electrolytic Cond. (25 mfd., 300 V.)	30-2360
41	Bias Resistor (Wirewound)	33-3361
42	Electrolytic Cond. (18 mfd., 475 V.)	30-2200
43	Field Coil (Replacement Part No. 36-1450)	36-4090
44	Power Trans. (115 V., 50-60 cycles)	32-8015
	Power Trans. (115 V., 25-40 cycles)	32-8015
45	Condenser (.05 mfd., 115 V. Plug)	94-9572
46	Pilot Lamp (Bulbeye)	47-2310
47	Pilot Lamp Resistor (16 ohms, 1 watt)	33-016431
48	Filament Trans. (115 V., 50-60 cycles)	32-7981
	Filament Trans. (115 V., 25-40 cycles)	32-8016
48X	Choke Coil	32-1281
49	Pilot Lamps (Dial)	34-2064
50	Motor Trans. (115 V., 50-60 cycles)	32-7998
	Motor Trans. (115 V., 25-40 cycles)	32-8015
51	Volume Control Motor Assy.	33-1138
52	Rotary Switch	42-1484
53	Bias Resistor (Wirewound, 10 ohms)	33-3363
54	Pilot Lamps (Station Indicator)	34-2064
55	Resistor (150 ohms, ½ watt)	33-115339
56	Volume Control Switch (Motor Control)	42-1469
57	Tubular Cond. (1 mfd.)	30-4489
58	Tubular Cond. (.1 mfd.)	30-4462
58X	Electrolytic Cond. (30 mfd., 30 V.)	30-2381
59	Stepper Unit Complete	38-9689
60	Compensator Strip (Pushbutton)	31-6264
60A	Compensator No. 1	
60B	Compensator No. 2	
	540-1030 K.C., Part of 60	
60C	Compensator No. 3	
60D	Compensator No. 4	
	670-1160 K.C., Part of 60	
60E	Compensator No. 5	
60F	Compensator No. 6	
	900-1470 K.C., Part of 60	
60G	Compensator No. 7	
60H	Compensator No. 8	
	1170-1800 K.C., Part of 60	
61	Coil Assy. (Pushbuttons)	
61A	Oscillator Coil No. 1	
61B	Oscillator Coil No. 2	
	540-1030 K.C.	32-3042
61C	Oscillator Coil No. 3	
61D	Oscillator Coil No. 4	
	670-1160 K.C.	32-3042
61E	Oscillator Coil No. 5	
61F	Oscillator Coil No. 6	
	900-1470 K.C.	32-3041
61G	Oscillator Coil No. 7	
61H	Oscillator Coil No. 8	
	1170-1600 K.C.	32-3041
62	Silver Mica Cond. (370 mmfd.)	30-1110
62X	Silver Mica Cond. (370 mmfd.)	30-1110
63	Spark Filter Assy.	
63A	Spark Filter Choke	32-3276
63B	Resistor (100 ohms, ½ watt)	33-110339
63C	Tubular Cond. (.05 mfd.)	30-4444
63D	Tubular Cond. (.05 mfd.)	30-4444
64	Bakelite Cond. (.05 mfd.)	30-4444
65	Resistor (150 ohms, Wirewound)	33-3362
66	Electrolytic Cond. (18 mfd., 150 V.)	30-2382
67	Choke Coil	32-1281
68	Tubular Cond. (.08 mfd.)	30-4123
69	Tubular Cond. (.05 mfd.)	30-4123
70	Tubular Cond. (.1 mfd.)	30-4462
71	Tubular Cond. (.5 mfd.)	30-4551
72	Resistor (1,000 ohms, ½ watt)	33-310339
73	Resistor (4,000 ohms, ½ watt)	33-340339
74	No. 3 Control Amp. Coil	32-3275
75	Resistor (750,000 ohms, ½ watt)	33-475339
76	Tubular Cond. (.02 mfd.)	30-4516
77	Resistor (2,000 ohms, ½ watt)	33-320339
78	Tubular Cond. (.1 mfd.)	30-4455
79	Resistor (150,000 ohms, ½ watt)	33-115339
80	Tubular Cond. (.05 mfd.)	30-4123
80X	Resistor (33,000 ohms, ½ watt)	33-212139
81	Resistor (99,000 ohms, ½ watt)	33-399339
82	Tubular Cond. (.02 mfd.)	30-4517
83	Resistor (1.5 meg., ½ watt)	33-515339
84	Tubular Cond. (.05 mfd.)	30-4423
85	No. 2 Control Amp. Coil	32-3087
86	Tubular Cond. (.05 mfd.)	30-4123
87	Tubular Cond. (.05 mfd.)	30-4423
88	Resistor (300 ohms, ½ watt)	33-130339
89	Sensitivity Control (50,000 ohms)	33-5295
90	No. 1 Control Amp. Coil	32-3086
91	Silver Mica Cond. (155 mfd.)	30-1128
92	Air Padder (Secondary Inductor)	31-6266
93	Secondary Inductor	40-4414
94	Wave Switch	42-1454
95	Tuning Cord	33-1139
96	Loop Assembly	38-9882
96A	Mica Cond. (250 mmfd.)	81-0033
96B	Resistor (10,000 ohms, ½ watt)	33-510339
97	Ant. Series Trans.	32-3226

MISCELLANEOUS PARTS

DESCRIPTION	PART No.
Bezel	38-9931
Bezel Gasket and Staple Assy.	38-9734
Bezel Screws	W-1834
Cable and Plug (Power Supply)	L-1316
Cabinet	104024
Drive Cord (Tuning Cond.)	31-2350
Drive Cord (Pointer)	31-2350
Dial	27-5537
Disc (Tuning)	27-4766
Disc (Tone Control)	27-4764
Disc (Volume Control)	27-4765
Disc (Wave Switch)	27-4767
Pilot Lamp Assy. (R. H. Bracket)	38-9734
Pilot Lamp Assy. (L. H. Bracket)	38-9711
Pilot Lamp Assy. (Station Lights)	38-9709
Pilot Lamp Assy. (Cabinet Bullseye)	38-9712
Pilot Lamp Jewel (Bullseye)	27-4777
Socket (4 prong, type 6Q tube)	27-6044
Socket (6 prong, type 43 and 78 tubes)	27-6038
Socket (6 prong, Octal, 6J5G, 6Q7G tubes, etc.)	27-6086
Socket (7 prong, Octal, 6J7G tube)	27-6057
Socket (7 prong, Octal, 6A8G tube)	27-6099
Speaker	36-1450
Spring (Drive Cords)	28-8913
Tab (Television)	27-9447
Washer (Keyed Washer, Tuning Disc)	56-1029
Washer (Spring Washer, Tuning Disc)	6717

Model 40-216

MISCELLANEOUS PARTS

DESCRIPTION	PART No.
Bezel	38-1509
Bezel Gasket and Staple Assy.	38-9734
Cabinet	104034
Cable (Power Supply)	L-1316
Dial	27-5538
Drive Cord (Tuning Cond.)	31-2315
Drive Cord (Pointer)	31-2320
Disc (Tone)	27-4766
Disc (Volume)	27-4765
Disc (Wave Switch)	27-4767
Disc (Tuning)	27-4768
Pilot Lamp Assy. (R. H. Bracket)	38-9694
Pilot Lamp Assy. (L. H. Bracket)	38-9711
Pilot Lamp Assy. (Station Lights)	38-9709
Pilot Lamp Assy. (Cabinet Bullseye)	38-9712
Pilot Light Jewel (Bullseye)	27-4777
Socket (4 prong, type 6Q tube)	27-6044
Socket (5 prong, type 37 tube)	27-6038
Socket (6 prong, type 43 and 78 tubes)	27-6038
Socket (Octal, type 6J5G, 6Q7G tubes, etc.)	27-6086
Socket (Octal, type 6J7G tube)	27-6057
Socket (Octal, type 6A8G tubes)	27-6099
Speaker	36-1489
Spring (Drive Cords)	28-8913
Tab (Television)	27-9447
Washer (Keyed Washer Tuning Disc)	56-1029
Washer (Spring Washer Tuning Disc)	6717

Replacement Parts

Model 40-216

SCHE. No.	DESCRIPTION	PART No.
1	Loop Assy. (Broadcast)	38-9882
1A	Resistor (10,000 ohms, ½ watt)	33-310339
1B	Mica Cond. (150 mmfd.)	30-1029
2	Loop Assy. (Short Wave)	38-9931
2A	Compensator	33-1138
3	Ant. Series Trans. (Broadcast)	32-3291
3X	Compensator	31-6212
4	Ant. Series Trans. (Short Wave)	32-3292
5	Ant. Trans. (Police Shunt)	32-3293
6	Mica Cond. (.0005 mmfd.)	30-1003
7	Resistor (2.0 meg., ½ watt)	33-520339
8	Tubular Cond. (.1 mfd.)	30-4462
9	Resistor (150,000 ohms, ½ watt)	33-415339
10	Resistor (1,000 ohms, ½ watt)	33-210339
11	Tubular Cond. (.05 mfd.)	30-4123
12	R. F. Trans. (Broadcast, Pushbutton and Police)	32-3230
12X	Mica Condenser (35 mmfd.)	30-1141
13	R. F. Trans. (Broadcast Manual)	32-3231
13X	Compensator	31-6212
14	R. F. Trans. (Short Wave)	32-3294
14X	Mica Cond. (5 mmfd.)	30-1097
15	Tubular Cond. (.1 mfd.)	30-4462
16	Tubular Cond. (.05 mfd.)	30-4518
17	Tubular Cond. (.1 mfd.)	30-4462
18	Resistor (51,000 ohms, ½ watt)	33-351339
19	Oscillator Trans. (Broadcast)	32-3231
20	Oscillator Trans. (Police)	32-3294
21	Oscillator Trans. (Short Wave)	32-3295
22	Compensator (Series section, osc./ator)	31-6266
23	Compensator (Broadcast, Low Frequency)	31-6230
24	Tracking Cond. (1000 mmfd.)	31-6262
25	Tracking Cond. (3425 mmfd.)	31-6263
26	Mica Cond. (250 mmfd.)	30-1049
27	Resistor (33,000 ohms, ½ watt)	33-333339
28	Resistor (150,000 ohms, ½ watt)	33-415339
29	Resistor (18,000 ohms, ½ watt)	33-318339
30	Resistor (5,000 ohms, ½ watt)	33-250339
31	Electrolytic Cond. (4 mfd., 250 V.)	30-2334
32	Mica Cond. (.002 mfd.)	30-1007
33	1st I. F. Trans. Assy.	32-3085
34	Tubular Cond. (.01 mfd.)	30-4572
35	Resistor (1.0 meg., ½ watt)	33-510339
36	Resistor (330,000 ohms, ½ watt)	33-433339
37	Resistor (330,000 ohms, ½ watt)	33-433339
38	2nd I. F. Trans. Assy.	32-3284
39	Mica Cond. (110 mmfd.)	30-1031
39X	Tubular Cond. (.004 mfd.)	30-4537
40	Tubular Cond. (.01 mfd.)	30-4478
41	Mica Cond. (.0004 mfd.)	30-1005
42	Volume Control	33-5300
43	Resistor (70,000 ohms, ½ watt)	33-370339
44	Tubular Cond. (.004 mfd.)	30-4334
45	Resistor (2.0 meg., ½ watt)	33-520339
46	Tubular Cond. (.015 mfd.)	30-4525
47	Resistor (1.0 meg., ½ watt)	33-510339
48	Tubular Cond. (.1 mfd.)	30-4521
49	Resistor (99,000 ohms, ½ watt)	33-399339
50	Tubular Cond. (.02 mfd.)	30-4518
51	Resistor (490,000 ohms, ½ watt)	33-449339
52	Resistor (5,000 ohms, ½ watt)	33-250339
53	Resistor (45,000 ohms, ½ watt)	33-345339
54	Tubular Cond. (.02 mfd.)	30-4481
55	Tone Control (3.0 meg.)	33-5301
56	Tubular Cond. (.01 mfd.)	30-4572
57	Tubular Cond. (.01 mfd.)	30-4478
58	Resistor (51,000 ohms, ½ watt)	33-351339
59	Resistor (490,000 ohms, ½ watt)	33-449339
60	Resistor (470,000 ohms, ½ watt)	33-447339
61	Resistor (240,000 ohms, ½ watt)	33-424339
62	Tubular Cond. (.01 mfd.)	30-4572
63	Tubular Cond. (.01 mfd.)	30-4501
64	Output Trans.	32-7998
	Cone and Voice Coil Assy.	
	(Spkr. Part No. 36-1450-2)	36-4089
	(Spkr. Part No. 36-1450-4)	36-4111
65	Tubular Cond. (.01 mfd.)	30-4501
66	Resistor (3,000 ohms, ½ watt)	33-230339
67	Resistor (1.0 meg., ½ watt)	33-510339
68	Electrolytic Cond. (25 mfd., 300 V.)	30-2360
69	Electrolytic Cond. (18 mfd., 475 V.)	30-2200
	Power Trans. (Replacement Part No. 36-1450)	
70	Resistor (Wirewound, Bias)	33-3364
71	Power Trans. (115 V., 50-60 cycles)	32-8031
	Power Trans. (115 V., 25-40 cycles)	32-8017
72	Bypass Cond. (.1 mfd., 110 V. Plug)	30-4578
73	Pilot Lamp (Bullseye)	34-2210
74	Pilot Lamp Resistor (18 ohms)	33-2064
75	Pilot Lamps (Dial)	34-2064
76	Filament Trans. (115 V., 50-60 cycles)	32-7993
	Filament Trans. (115 V., 25-40 cycles)	32-8015
77	Choke Coil	32-1281
78	Motor Trans. (115 V., 50-60 cycles)	32-7990
	Motor Trans. (115 V., 25-40 cycles)	32-8015
79	Volume Control Motor Assy.	33-1138
	Stepper Unit (Complete)	38-9689
80	Rotary Switch (Stepper Unit)	42-1488
81	Bias Resistor (Wirewound, 10 ohms)	33-3363
82	Pilot Lamp Assy. (Station Indicator)	34-2064
83	Volume Control (Control-Motor)	42-1469
84	Resistor (150 ohms, ½ watt)	33-115339
85	Tubular Cond. (1 mfd.)	30-4489
86	Tubular Cond. (.1 mfd.)	30-4462
87	Electrolytic Cond. (30 mfd., 30 V.)	30-2381
88	Padder Strip (Pushbuttons)	31-6264
89	Compensator No. 1	
89A	Compensator No. 2	
89B	Compensator No. 3	
	540-1030 K.C., Part of 89	
89C	Compensator No. 4	
89D	Compensator No. 5	
	670-1160 K.C., Part of 89	
89E	Compensator No. 6	
89F	Compensator No. 7	
	900-1470 K.C., Part of 89	
89G	Compensator No. 8	
89H	Compensator No. 9	
	1100-1800 K.C., Part of 89	
90	Elec. Pushbutton Trans. Assy. (8 Trans.)	32-3091
90A	Osc. Trans. No. 1	
90B	Osc. Trans. No. 2	
	540-1030 K.C.	32-3042
90C	Osc. Trans. No. 3	
90D	Osc. Trans. No. 4	
	670-1160 K.C.	32-3042
90E	Osc. Trans. No. 5	
90F	Osc. Trans. No. 6	
	900-1470 K.C.	32-3041
90G	Osc. Trans. No. 7	
90H	Osc. Trans. No. 8	
	1100-1800 K.C.	32-3041
91	Silver Mica Cond. (370 mmfd.)	30-1110
92	Silver Mica Cond. (370 mmfd.)	30-1110
93	Bakelite Cond. (.05 mfd.)	30-4518
94	Resistor (150 ohms)	33-3362
95	Electrolytic Cond. (18 mfd., 200 etc.)	30-2354
96	Choke Coil	32-1281
97	Tubular Cond. (.08 mfd.)	30-4123
98	Tubular Cond. (.05 mfd.)	30-4423
99	Tubular Cond. (.1 mfd.)	30-4551
100	Tubular Cond. (.5 mfd.)	30-4551
101	Resistor (4000 ohms, ½ watt)	33-340339
102	Resistor (51,000 ohms, ½ watt)	33-351339
103	No. 3 Control Amp. Trans.	32-3275
104	Tubular Cond. (.02 mfd.)	30-4516
105	Resistor (750,000 ohms, ½ watt)	33-475339
106	Resistor (2.0 meg., ½ watt)	33-520339
107	Tubular Cond. (.1 mfd.)	30-4455
108	Resistor (1,000 ohms, ½ watt)	33-310339
109	Tubular Cond. (.05 mfd.)	30-4123
110	Resistor (99,000 ohms, ½ watt)	33-399339
111	Tubular Cond. (.05 mfd.)	30-4123
112	Resistor (150,000 ohms, ½ watt)	33-415339
112X	Resistor (51,000 ohms, ½ watt)	33-351339
113	Resistor (1.5 meg., ½ watt)	33-515339
114	Tubular Cond. (.05 mfd.)	30-4423
115	No. 2 Control Amp. Trans.	32-3276
116	Tubular Cond. (.05 mfd.)	30-4444
117	Sensitivity Control	33-5295
118	Resistor (300 ohms, ½ watt)	33-130339
119	No. 1 Control Amp. Trans.	32-3086
120	Silver Mica Cond. (130 mmfd.)	30-1108
121	Compensator (Secondary Inductor)	31-6268
122	Secondary Inductor (Mystery Tune)	40-4415
123	Wave Switch	42-1537
124	Tuning Cond.	31-2417

WIRELESS REMOTE CONTROL UNIT

125	Primary Inductor	32-3097
126	Silver Mica Cond. (200 mmfd.)	30-1101
127	Tubular Cond. (.05 mfd.)	30-4319
128	Air Padder	31-6268
129	Resistor (500 ohms, ½ watt)	33-150339
130	Mystery Part (Battery)	41-8023
131	Dial Unit (Pulsed)	38-9704
132	Spark Filter Choke (Inside of Sender Unit)	38-9898
1328	Spark Filter Choke	32-3278
132B	Resistor (100 ohms, ½ watt)	33-110339
132C	Tubular Cond. (.05 mfd.)	30-4444
132D	Tubular Cond. (.05 mfd.)	30-4444