

# MODELS 41-260 AND 41-265

## SPECIFICATIONS

Models 41-260 and 41-265 are seven (7) tube alternating current (A. C.) operated superheterodyne radios incorporating electric push button in addition to manual tuning — and the new Philco built-in American and overseas loop aerial system. These models are also designed to receive the sound of a television program tuned in by special type Philco Television Radios.

In general, these models are similar with the exception of the tuning ranges and cabinet design. Model 41-260 has two (2) tuning ranges covering 540 to 1720 K. C. and 9.0 to 12.0 M. C. Model 41-265 consists of three (3) tuning ranges covering 540 to 1720 K. C., 2.0 to 7.0 M. C. and 9.0 to 12 M. C.

Other features of design included in each model: Continuously variable tone control; A. V. C.; pentode audio output and a tuning band indicator.

**POWER SUPPLY:** 115 volts, 60 cycle A. C.

These models can also be operated on 25 cycle current. To do this it is necessary to replace the power transformer as indicated in the part list.

**POWER CONSUMPTION:** 45 watts.

**INTERMEDIATE FREQUENCY:** 455 K. C.

**AUDIO OUTPUT:** 2 watts.

**PHILCO TUBES USED:** XXL, R. F. Mixer; XXL, Oscillator; two 7B7, I. F. Amplifiers; 7C6, 2nd Detector, 1st Audio, A. V. C.; 41, Audio Output and a 84, Rectifier.

**AERIAL CONNECTIONS:** The built-in loop aerial system is designed to operate without an outside aerial or ground, and to give exceptionally high receiving performance of stations on standard and shortwave frequencies. Another feature is its noise-reducing characteristic. The loop can be turned to the position in which it picks up a minimum amount of interference, or to the position where best reception is obtained.

To operate the radio in steel reinforced buildings and other shielded locations, where signal strength is weak, the Philco 1941 Outdoor Aerial, Part No. 45-2817, is recommended for maximum receiving performance. The outdoor aerial can be easily connected to the radio by inserting the plug attached to the transformer unit into the socket provided at the rear of the Radio chassis. This aerial can be obtained from your local Philco distributor. A ground connection is not required with either type of installation.

**CABINET DIMENSIONS:**

	Height	Width	Depth
Model 41-260 .....	36 $\frac{1}{4}$ "	24 $\frac{3}{4}$ "	10 $\frac{1}{2}$ "
Model 41-265 .....	37 $\frac{1}{2}$ "	26 $\frac{3}{4}$ "	11"

## Models 41-260, 41-265

### PROCEDURE FOR SETTING AND OPERATING THE ELECTRIC PUSH BUTTON TUNING

The automatic tuning mechanism of each model is identical and consists of six (6) electric tuning push buttons, five (5) of the push buttons are used for selecting broadcast stations, and one as the power control (On-Off switch).

Select five of your favorite nearby broadcast stations and

remove their call letters from the station call letter tab sheets supplied. Place each call letter tab in the tab space above each button which includes the frequencies of the desired stations. The frequency range of the buttons and corresponding padders is as follows:

Padders (right to left from rear)	Circuit	Buttons (left to right from front)	Frequency Range
		1	On-Off Switch
1	Ant }	2	540 to 980 kilocycles
2	Osc }		
3	Ant }	3	540 to 980 kilocycles
4	Osc }		
5	Ant }	4	710 to 1185 kilocycles
6	Osc }		
7	Ant }	5	850 to 1600 kilocycles
8	Osc }		
9	Ant }	6	1185 to 1720 kilocycles
10	Osc }		

The second button from the left looking at the front of the cabinet corresponds to the two right-hand padder screws looking at the rear and covers the lowest frequency range.

With the "Tuning Range Selector" in broadcast position, tune in the station whose call letters appear above the second button. Then depressing the second button, tune in this station by rotating the No. 2 "OSC" screw (next to the right end of the unit looking at the rear of the chassis). (NOTE: Inherent characteristics of these padders may cause some of them to cover a lower range than required to cover the broadcast band. This may cause the radio to howl or flutter when a station button is depressed. To correct this, loosen the "ANT" padder corresponding to the depressed station button.) Turn the "OSC" screw slowly and listen carefully or the station may be passed without noticing it. After the "OSC" screw has been adjusted for maximum volume, the corresponding "ANT" screw should be adjusted for maximum. For some stations, it may be necessary to readjust the "OSC" screw

after the "ANT" screw has been set. Switching the "Tuning Range Selector" from broadcast position to the automatic push button position will enable you to make sure you have the correct station tuned in. When the first station has been set, the same procedure should be followed for the remaining buttons, first tuning in the desired station by means of the Station Selector.

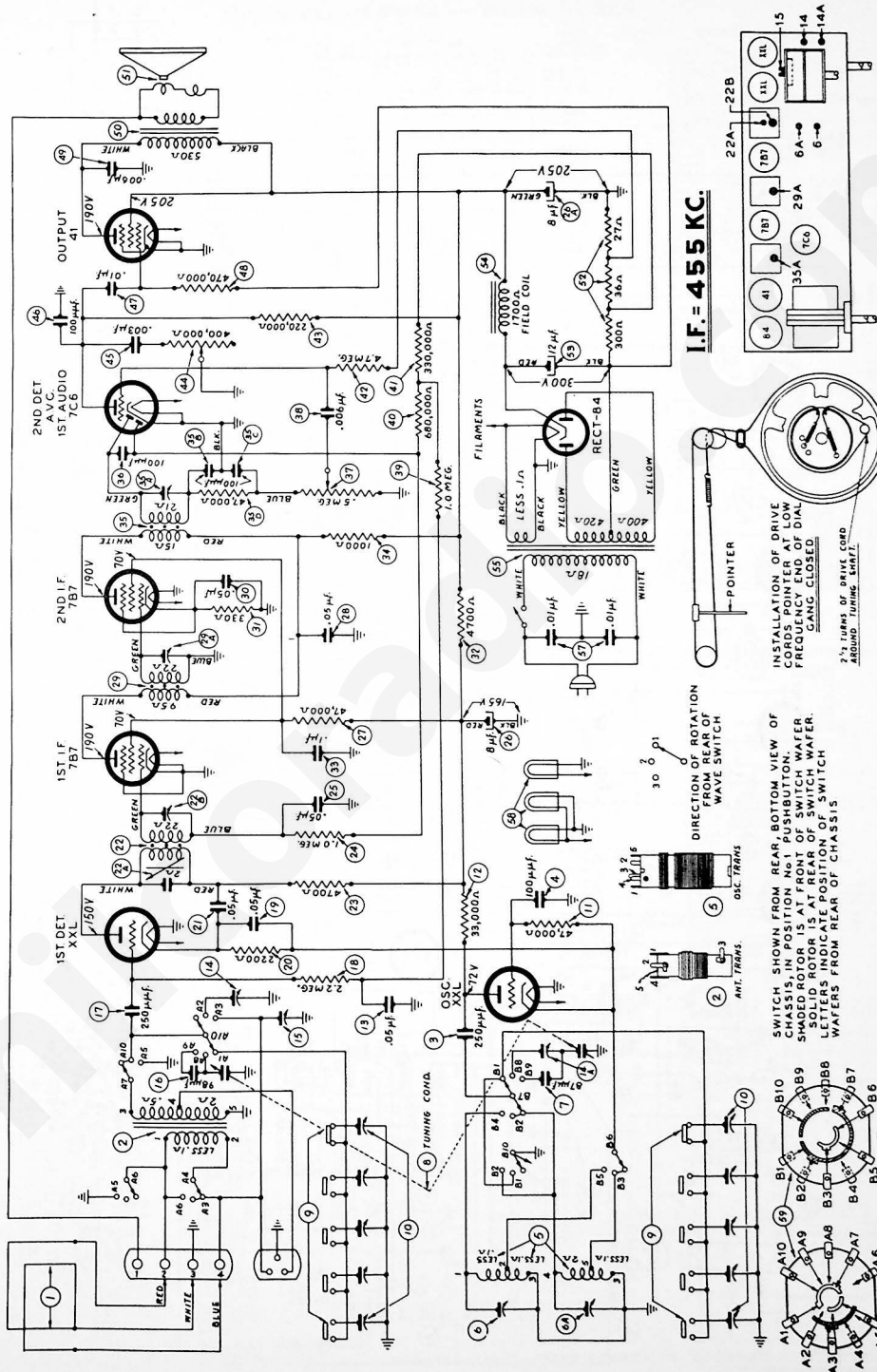
To tune the set with the "Push Buttons", turn "Tuning Range Selector" to push button position and press in the button which corresponds to the call letters of the desired station. The volume of the program may be controlled with the manual volume control.

The lowest frequency station push button labeled "Television" can be adjusted for reception of the sound channel of a television program received by Philco television sets. This push button may also be used in conjunction with a Philco Wireless Record Player.

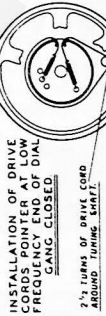
### PRODUCTION CHANGES

Model 41-260, 1st I. F. Transformer, Part No. 32-3501 changed to Part No. 32-3465. The 3rd I. F. Transformer Part No. 32-3503, changed to Part No. 32-3467.

# MODEL 41-260 (CONTINUED)



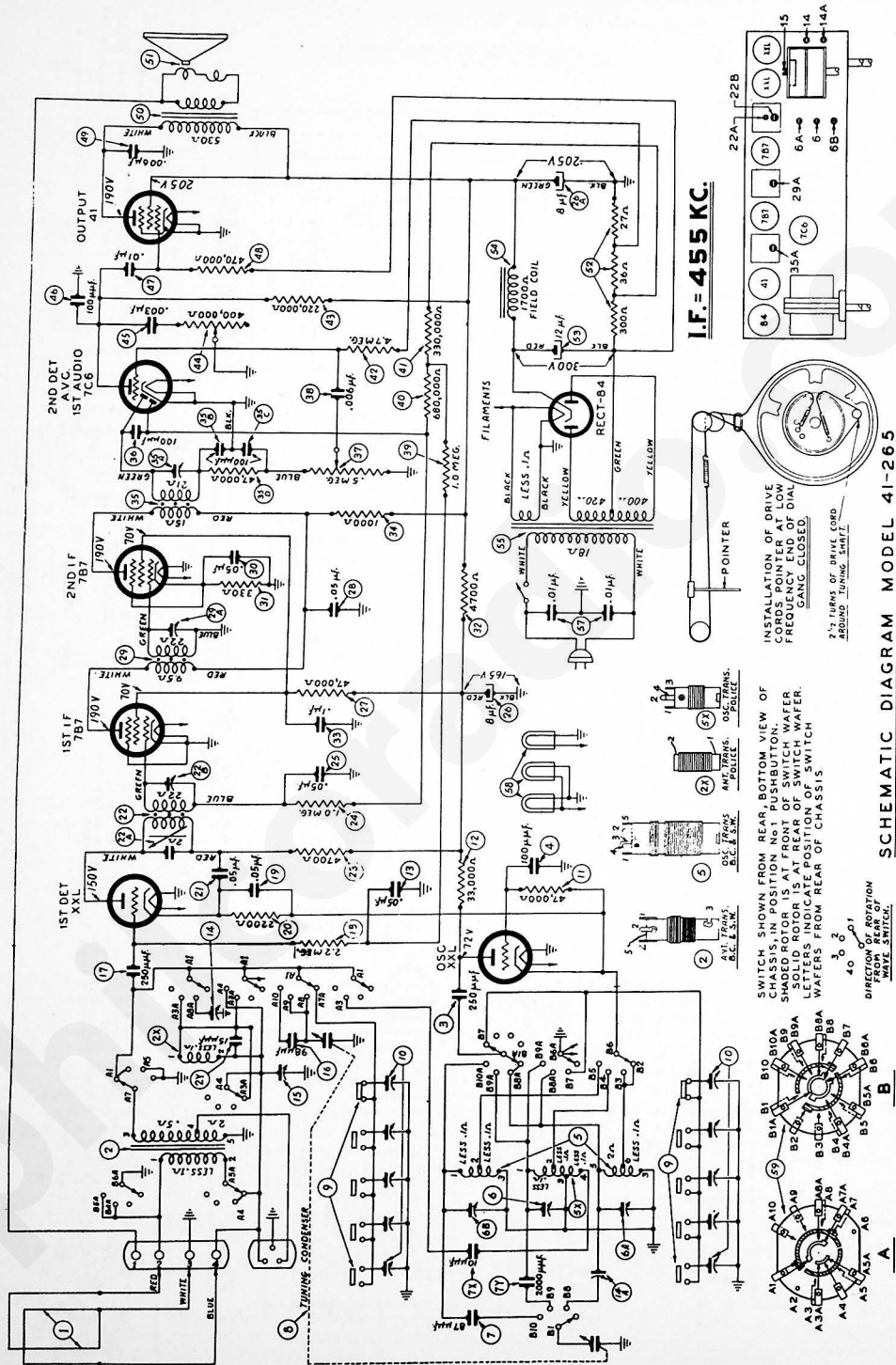
I.F. = 455 KC.



SWITCH SHOWN FROM REAR, BOTTOM VIEW OF SHADED ROTOR IS AT FRONT OF SWITCH WAFER. SOLID ROTOR IS AT REAR OF SWITCH WAFER. LETTERS INDICATE POSITION OF SWITCH WAFERS FROM REAR OF CHASSIS

SCHEMATIC DIAGRAM MODEL 41-260

# MODEL 41-265 (CONTINUED)





# MODELS 41-260 AND 41-265 (CONTINUED)

## ALIGNMENT OF R. F. AND I. F. COMPENSATORS

The following procedure is the same for both models:

### EQUIPMENT REQUIRED

1. **Signal Generator:** Covering the frequency range of the receiver, such as Philco Models 070 or 177.
2. **Aligning Indicator:** Either a vacuum tube voltmeter or an audio output meter may be used as an aligning indicator. Philco Models 027 and 028 circuit testers contain both these meters.
3. **Tools:** Philco Fiber Screw Driver, Part No. 45-2610. When using the vacuum tube voltmeter for alignment, an adaptor, Part No. 45-2767, is recommended for convenience.

### CONNECTING ALIGNING INSTRUMENTS

**Vacuum Tube Voltmeter:** To use the vacuum tube voltmeter as an aligning indicator, make the following connections: Attach the negative (—) terminal of the voltmeter to any point in the circuit where the A. V. C. voltage can be obtained. Connect the positive (+) terminal of the vacuum tube voltmeter to the chassis.

**Audio Output Meter:** Terminal No. 1 is provided on the loop aerial panel for connecting one lead of the audio output meter to the voice coil of the speaker. The other lead of the meter is connected to the chassis. When using these connections, the lowest A. C. scale of the meter must be used. (0 to 10 volts).

The audio output meter can also be connected between the plate of the output tube and the ground of the chassis.

**Signal Generator:** When adjusting the "I. F." padders, the high side of the signal generator is connected through a .1 mfd. condenser to the antenna section of the tuning condenser. Connect the ground or low side of the generator to the chassis.

When aligning the R. F. padders a loop is made from a few turns of wire and connected to the signal generator output terminals; the signal generator is then placed close to the loop of the radio.

When adjusting the radio outside the cabinet the loop aerial should be placed in approximately the same position around or near the chassis as when assembled.

The receiver can be adjusted in the cabinet or removed from the cabinet. If adjustments are made outside the cabinet a Service Tuning Scale, Part No. 45-2825, Model 41-260; and Part No. 45-2826, Model 41-265, will be required. This scale is placed underneath the pointer on the metal dial plate.

After connecting the aligning instruments, adjust the compensators as shown in the tabulation for each model below. Locations of the compensators are shown in the schematic diagram on pages two and three. If the indicating meter pointer goes off scale when adjusting the compensator, reduce the strength of the signal from the generator.

### Model 41-260

Operations in Order	SIGNAL GENERATOR		RECEIVER			SPECIAL INSTRUCTIONS
	Output Connections to Receiver	Dial Setting	Dial Setting	Control Setting	Adjust Compensators in Order	
1	Ant. Section of Tuning Cond.	455 K. C.	Tuning Cond. Closed	Vol. Max. Range Switch "Brdcst"	35A, 29A, 22A, 22B	Note A
2	Loop to Radio Loop See Sig. Gen. Above	1720 K. C.	1720 K. C.	Vol. Max. Range Switch "Brdcst"	6A	Note B
3	Loop to Radio Loop See Sig. Gen. Above	1500 K. C.	1500 K. C.	Vol. Max. Range Switch "Brdcst"	14	
4	Loop to Radio Loop See Sig. Gen. Above	580 K. C.	580 K. C.	Vol. Max. Range Switch "Brdcst"	14A	Rock Comp. to "Max." Recheck Operations Nos. 2, 3
5	Loop to Radio Loop See Sig. Gen. Above	12 M. C.	12 M. C.	Range Switch S. W.	6, 15	Note C

### Model 41-265

1	Ant. Section of Tuning Cond.	455 K. C.	Tuning Cond. Closed	Vol. Max. Range Switch "Brdcst"	35A, 29A, 22A, 22B	Note A
2	Loop to Radio Loop See Sig. Gen. Above	1720 K. C.	1720 K. C.	Vol. Max. Range Switch "Brdcst"	6A	Note B
3	Loop to Radio Loop See Sig. Gen. Above	1500 K. C.	1500 K. C.	Vol. Max. Range Switch "Brdcst"	14	
4	Loop to Radio Loop See Sig. Gen. Above	580 K. C.	580 K. C.	Vol. Max. Range Switch "Brdcst"	14A	Rock Comp. to "Max." Recheck Operation No. 2
5	Loop to Radio Loop See Sig. Gen. Above	6 M. C.	6 M. C.	Range Switch Police	6	Rock Comp. to "Max."
6	Loop to Radio Loop See Sig. Gen. Above	12 M. C.	12 M. C.	Range Switch S. W.	6B, 15	Note C

NOTE A — Compensator (22A) Model 41-260, must be adjusted before (22B) Model 41-260, and should be done in the following manner: Turn 22A all the way up, then turn down selecting the first I. F. peak, then pad 22B to maximum. This procedure applies also to Model 41-265.

NOTE B — DIAL CALIBRATION: In order to adjust the receiver correctly, the dial must be aligned to track properly with the tuning condenser. To do this, proceed as follows: Turn the tuning condenser to the maximum capacity position (plates fully meshed). With the condenser in this position, set the tuning pointer on the extreme left index line at the low frequency end of the broadcast scale.

NOTE C — Tune in the first signal peak from the tight position of both padders. Roll padder (15) Model 41-260; (15) Model 41-265, slowly to maximum on the first peak.