

SETTING AND OPERATING ELECTRIC PUSH-BUTTON TUNING

In order to adjust the electric automatic tuning push-button accurately for reception of broadcast stations, a signal generator, such as Philco Model 077, and a padding screw driver, Philco Part No. 45-2610, are required. With this equipment at hand, proceed as follows:—

1—Select five (5); seven (7) or eight (8) of the most popular stations received in the locality (depending on the number of push-buttons on the model to be adjusted). Insert the station call letters into the windows above the buttons. The station with the lowest frequency is placed in the first button on the left and the highest frequency station in the extreme right button. Each push-button is adjusted by two set screws. These set screws are located on the rear of the chassis or push-button unit. Each set of screws is numbered and covers a frequency range as follows:—

FREQUENCY RANGES OF PUSH-BUTTONS

Models 40-100, 40-110

Push-Button	Frequency Range
1	540-1030 K. C.
2	650-1100 K. C.
3	650-1100 K. C.
4	740-1240 K. C.
5	1160-1600 K. C.
6	Dial

Models 40-195, 40-200

Push-Button	Frequency Range
1, 2, 3	540-1030 K. C.
4, 5	670-1160 K. C.
6, 7, 8	900-1600 K. C.

Models 40-160, 40-165

Push-Button	Frequency Range
1	540-1000 K. C.
2	650-1100 K. C.
3	740-1300 K. C.
4	900-1500 K. C.
5	1100-1600 K. C.

Models 40-124, 40-125, 40-135, 40-145, 40-503, 40-506, 40-507, 40-525 (121), 40-526 (121)

Push-Button	Frequency Range
1	540-1030 K. C.
2	650-1100 K. C.
3	740-1240 K. C.
4	900-1470 K. C.
5	1160-1600 K. C.
6	Dial

Models 40-150, 40-155, 40-180, 40-185, 40-190, 40-508, 40-509

Push-Button	Frequency Range
1, 2, 3	540-1060 K. C.
4, 5	650-1110 K. C.
6, 7	920-1600 K. C.

Looking at the front of the cabinet, the first button on the left is adjusted by "Osc." and "Ant." set screws No. 1; the next push-button by "Osc." and "Ant." set screws No. 2, and the remaining push-buttons in order.

2—Turn the receiver "on" and set the "Tuning Range Selector" or push-button for "Dial" tuning.

3—Set up the Model 077 signal generator about 3 feet from the receiver and connect a loop aerial (made from a few turns of wire 12 inches in diameter) to the "high" and "ground" output jacks of the signal generator. Turn the output controls to maximum and set the modulation control to "Mod. ON".

4—Manually tune in on the radio the first station to be set up; (usually No. 1 push-button first). After doing this, set the indicator of the 077 signal generator to the frequency of the station being received. As the indicator approaches the frequency of the station, a whistle will be heard; leave the indicator at this point.

5—Turn the receiver tuning range selector to "push-button" and press in No. 1 button. (Models without a tuning range selector, simply press in push-button to be set up). Using the insulated screw

driver, turn the No. 1 "Osc." screw until the broadcast station identified by the signal generator is heard; then turn signal generator indicator off the frequency of the station.

6—Readjust No. 1 "Osc." and "Ant." screws until the station is heard clearly and distinctly. The adjustment of No. 1 push-button is then complete. After setting up the first station the same procedure as outlined above is used for the remaining stations.

While the above procedure is satisfactory in setting up push-buttons for stations, a very accurate adjustment can be obtained with a vacuum tube voltmeter. The instructions for using a vacuum tube voltmeter will be found on page 10 under "Using Vacuum Tube Voltmeter for Aligning Compensators and Adjusting Push-Buttons."

When any of these models are to be set up to receive the sound of a television program, tuned in by special type Philco television sets, or if they are to be used in conjunction with a Philco Record Player, push-button No. 1 should be used. To adjust the push-button on these instruments, the same procedure as outlined above is used.

Further details for setting up this receiver for operation with Philco Television sets and Record Players are supplied with the instruments.