

R. F. and I. F. ALIGNING INSTRUCTIONS

MODELS TH-14, TH-15, TH-16, TH-17, PT-26-28-33-41 (121-122); 46-48-50-57, PT-61 (121-122); and 65-66-69 (121-122)

The same general procedure is followed in aligning the compensating condensers in the "R.F." and "I.F." circuits of any of the above listed models. The procedure for adjusting the push-buttons on models equipped with automatic tuning will be found on page 10.

EQUIPMENT REQUIRED

SIGNAL GENERATOR: Philco Model 077, A. C. operated or 177 battery operated should be used.

ALIGNING INDICATOR: Philco Model 027 and Model 028 Vacuum Tube Voltmeter and Circuit Tester which also contain an audio output meter

are recommended. Either of the vacuum tube voltmeter or the audio output meters may be used as an aligning indicator and are connected as given under "Connecting Aligning Instruments".

TOOLS: Fibre handle aligning screw driver, Philco Part No. 45-2610.

CONNECTING ALIGNING INSTRUMENTS

AUDIO OUTPUT METER: If an aligning indicator of this type is used, connect it to the plate and screen terminals of the output tube.

VACUUM TUBE VOLTMETER: To use the vacuum tube voltmeter as an aligning indicator, make either of the following connections:

1—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 (B—) of the receiver. (Cathode 7C6)

2—An aligning adaptor, Philco Part No. 45-2767 can be obtained from your Philco Distributor for use in connecting the vacuum tube voltmeter. To use the adaptor, remove the second 7C6 detector tube from its socket and insert the aligning adaptor in the socket, then replace the tube in the adaptor. Connect the negative terminal of the vacuum tube voltmeter to the light colored wire which protrudes from the side of the adaptor. Attach the positive terminal of the

vacuum tube voltmeter to the black wire of the adaptor.

SIGNAL GENERATOR: When adjusting the I. F. padders, the high side of the signal generator is connected through a .004 mfd. condenser to the antenna section of the tuning condenser. Connect the ground or low side of the generator to the chassis. It may be necessary when adjusting AC-DC models to reverse the power plug to eliminate hum.

The R. F. and oscillator padders are aligned with the high side of the signal generator connected to the antenna terminal on the loop of the receiver through a 100 mmfd. condenser.

After connecting the aligning instruments, adjust the compensators on all models in the order as shown in the tabulation below. The first and second I. F. transformers in all models are located on the top and bottom sections of the chassis respectively. The "antenna" and "oscillator" padders are located on the tuning condenser.

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 Condenser .004 mfd. Dummy	455 K. C.	540 K. C. Tuning Cond. Closed	Vol. Max.	1st and 2nd I. F. Trans.	Push in "Dial" Button on Push-Button Models
2	Ant. Terminal on loop 100 mmfd. Dummy Note B	1500 K. C.	1500 K. C.	Vol. Max.	"Osc." "Ant."	Note A

NOTE A—DIAL CALIBRATION: The dial pointers are adjusted by closing the tuning condenser (plates fully meshed) and setting the pointers slightly below the top edge of the brown center line at the extreme left end of pointer.

NOTE B—Models PT-26, PT-28, PT-46, PT-48: Aerial padder must be adjusted with the loop connected and the set assembled in cabinet. The aerial connection on these models is the wire at the rear of the tuning condenser which is attached to the chassis. Remove wire lug from chassis and connect the 100 mmfd. condenser.