

ALIGNMENT INSTRUCTIONS

General

Before commencing alignment the chassis must be withdrawn from the cabinet in order that trimmers, etc., are made accessible. The three clock leads are sufficiently long to permit withdrawal of the chassis without the necessity of unsoldering these leads.

If any I.F. circuits have been disturbed, complete I.F. and ${\bf R.F.}$ alignment must follow.

I.F. Alignment

 Set volume control fully clockwise and gang capacitor to minimum capacity (plates fully disengaged). A high resistance A.C. Voltmeter connected across the voice coil may be used as an output meter.

NOTE: During alignment, the output from the signal generator must be progressively reduced as the circuits are brought into line so that the output does not exceed 500 mW. (1.25 volts across the voice coil).

- 2. Apply a modulated signal at 455 kc/s. (modulated at 400 cycles to 30 per cent.) to the grid of the mixer (pin 7) via a 0.1 mfd. blocking capacitor; adjust cores of 2nd and 1st I.F. transformers in that order for maximum output.
- 3. Repeat procedure outlined in "2" above until no further increase is obtained.

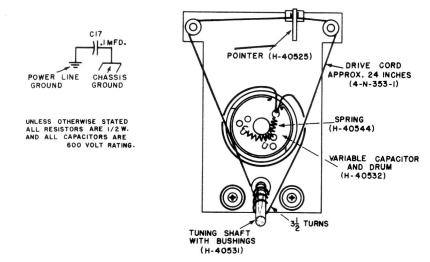
R.F. Alignment

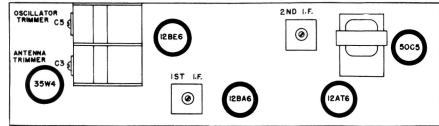
Set controls as in operation 1 of I.F. Alignment and connect signal generator to radiation loop consisting of 2 turns of insulated wire having an 8-inch diameter and placed approximately one foot from receiver antenna loop with same relative position to the chassis as the antenna loop.

APPROXIMATE READINGS WERE TAKEN BETWEEN POINTS INDICATED ON CIRCUIT DIAGRAM AND POWER LINE GROUND WHEN BOTH CLOCK AND RADIO WERE CONNECTED TO A 117-VOLT, 25-CYCLE SUPPLY AND OPERATING AT MAXIMUM VOLUME AT A QUIET POSITION OF THE BAND. VARIATIONS OF ± 15 PER CENT MAY BE ANTICIPATED BETWEEN MODELS. HIGHER OR LOWER LINE VOLTAGES WILL PRODUCE CORRESPONDING VARIATIONS IN METER READINGS IN APPROXIMATE PROPORTION TO THE CHANGE IN LINE VOLTAGES.

TO THE CHANGE IN LINE VOLTAGE.

A HIGH RESISTANCE VOLTMETER OR VACUUM TUBE VOLTMETER SHOULD BE USED TO MEASURE VOLTAGES VALUES STATED ABOVE WERE OBTAINED USING A VACUUM TUBE VOLTMETER.





Operation No.	Signal Generator Dial Setting in kc/s.	Radio Pointer Setting in kc/s.	Operation
1	1,650	1,650 (plates fully disengaged)	Adjust- oscillator trimmer (C-5) for maximum output.
2	1,500	Tune in	Adjust antenna trimmer (C-3) for maximum output.
3	_		Repeat operations 1 and 2 until no further increase is obtained.